CHAPTER 2

Review of Literature

Birgit Vogel-Heuser (2015)
The author of this research article focuses on APS (automated production system), which is required in the production system for producing some important and complex structures its been decades how the software development life cycle is being used in the production system to get accuracy and provide rich experience in the production of goods. Software engineering process followed at the automation process is proven to be good by choosing right software’s, which can function correctly at different points in the production system [22]. The automated hardware and the software work in synchronization to give correct output in the system design and development. Thus choosing right software tools is important in the APS system.

Cengiz Erbas (2015)
In this research article the author explains how the transactional cost is associated to software engineering principles and practices. The author focuses on human aspects and software engineering using a framework, which will simplify the use of theory in the software engineering practices. The software design process follows either top-down, bottom-up or reuse engineering but its important to unify the processes such that they fit in a framework and there should not be any boundaries to access any of the software engineering principles without any interventions [23]. Most of the software engineering processes have some features in common which can be extracted and they can be worked upon providing effective output at each stage of project management lifecycle.

Lang (2011)
This paper explains about the workflow management and the integration of the various workflow modules the system design is also important in the workflow all the information about the project should be managed in the central repository this repository will collect all the data and store it at central position most of the information management and integration modules provide the web interface to collect and store the data in the central repository this can only be done using the central repository for this purpose [24].

Klaas-Jan Stol (2015)
The author of this research paper focuses on evidence-based software engineering, which will help to conceptualize the theoretical software engineering principles. The software engineering principles need to be studied and evidence should be produced for each phase of project management and software engineering principles should be implemented with utmost care and with accuracy. The theory of software engineering is not understood by the SE researchers it’s important to have evidences of the principles of theoretical software engineering principles [25]. The author has implemented a research path, which can be followed to implement the software engineering principles in practices.

**Pan-Wei Ng (2015)**

In this research paper the author emphasizes on various aspects of software engineering, which are related to theory and how these approaches can be applied using a software kernel, which is equipped with all the practical implementation of the software engineering process. The tool essence will provide recommendations, which will help the team members of project management to accomplish their goals along with the theoretical implications of software engineering[26]. The author’s research had provided gains in the productivity and also reduced defects in software development. Using the tool one can achieve better performance.

**Alexander Boden (2013)**

This research article focuses on how the end users can access the business model an can add more information to the software development by bridging the gap between the software development company requirement definition and the end users requirement. The end users can be includes in the service-based model to improve the productivity and the gap between the business models the IT requirement for the development of the business needs[27]. There are two different approaches which the users can follow to bridge this different they are described by the author as follows perceptible and screen sharing versions of tools which will improve the software development where the end users can collaborate with the business model an they will provide their input to the business model with their little knowledge and understanding of the business processes these web services will help the end users to collaborate and interact with the business model of the software development process.
Ana Moreno (2013)
In this research work the author focuses on the education of the software engineers to improve the software engineering in practice, which will be applied at the time of development in the industry. There is be a connecting gap between the academic education of the software engineer and the industrial requirement of the company. It’s important to introduce CMM model in the academic teaching for the engineer and they should practice this so that the engineers can use this model in the industry as and when required [28]. The CMM standard will help improve the software development life cycle and also the students will practice CMM in the educational institute. The educational institutions should run 06509869.pdf program, which can help in filling the gap between the students teachings and industry requirement.

Husam Suleiman (2013)
The author of this research project focuses on the checklist, which is important part of requirement engineering and project management software. The process of applying a checklist in the project will help overcome the flows in design and development of the project thus reducing the overall flaw in the project management software. Checklists have been prepared by the author to monitor the activities and to follow the guidelines for the smooth operation of the project management software. Requirement engineering being one of the most crucial part of project management software / software engineering life cycle its important to maintain a checklist which can help in managing and collecting proper requirement from the users [29,30].

Joseph Weiss (2012)
In this research article the author explains how project management in IT industry play a vital role for managing resources and various specifications of the project under development this system is most suitable for both the academicians and the IT industry personals information is collected and managed in a common repository of project management software [31]. Lot of risk is involved in the project management and each part of the risk is taken into consideration by the company the project manager has a great responsibility to manage all the projects and their risks.

Sue Newell (2012)
This paper explains the various tools and techniques, which help in the integration of the system, and also most of the tools today are more collaborative. IT-based project management tools and techniques for effectively using; identify a Multidisciplinary and global technical team managing the environment: In this paper the author mini-track academics and practitioners interested in the project management of many areas that focuses on the emerging tools and techniques for managing information system projects; technology leading and managing teams [32].

**Daniel Morales (2011)**

In this research paper the author explains the importance of soft-skills, which are important in software engineering, and its practices soft skills provide a foundation to software engineering and project management. The helps in building team collaboration, project management system design and development. The system will help in designing and developing the life cycle of the software project its main function is to develop and design the software resources in time and with in allocated budget [33]. Time management is a crucial part in project management its affects the development and delivery time of the software project to the client.

**John Mark (2011)**

E-healthcare project connects various hospitals, doctors, pharmacy and other related healthcare services to the patient directly via the system. As we know that patient needs attention as he is not well he needs to visit hospital and also meet specialist doctor in the good hospital. Its becomes very difficult to find specialized doctors in some hospital so it becomes important to transfer patient to another hospital.

**Correl Li (2011)**

the patient needs to call each and every hospital and book appointment with doctor. Sometime the patient can be a visitor to the country then it becomes difficult for him to find good hospital with good specialist to cure him. So, we need to connect various health care services with each other on a common platform. This project exactly does this by connecting different services of healthcare which the patient will need thus providing a solution to the end user of the system. In this project, I will be collecting information about various hospitals in the city and will add this
information to the database some information which I will be including in my database include hospital contact information, specialties of the hospital, doctor’s information including his specialization. As this project connects various healthcare services, the patient will not suffer from finding hospitals and booking appointments. In new city it becomes difficult for visitors to find hospitals

**Cernian (2011)**

In this paper the information extraction from various stages of the project management system is more informative. This paper Semantic Web World Wide Web Consortium to extend the current Web is a vision for the project and explains the data well defined meaning and structure, enhancing computers and people to work with are given. Semantic technology different databases, business applications and Web services, to find the relationship to include new technologies are being added to enterprise solutions. In this paper [34], we Semantic Web mechanisms with database metadata and data warehousing methods involved the use of a software tool that represents an architectural model [53]. The benefits of the Semantic Web concept are combined with a powerful database server, then the information management will be much improved.

**Elisabetta Di Nitto (2011)**

This research paper focuses on the distributed system and is usage in the software project management most of the software’s designed follow the distributed systems design and development methods which cater to the requirement of distributed system and its implementation in software project management [35]. All the teams working on a common design and development of the software project.

**Daniel Gonzalez-Morales (2011)**

In this research article the author explains about teaching soft skills for project management and software engineering this is one of the important factors of software engineering and project soft skills are required by all team members working in a project each software engineering or a software developer will have to process soft skills. It should be a part of software engineering project management practices [36].
**Etiene Lamas (2011)**

In author of this research paper emphasis on software testing which helps in detecting the functionality of the software this testing is performed to check the operations of the software are working correctly or not all the operations are executed of the project. There are two types of testing which are performed on the software project one is called black box testing and the other is called functional testing or white box testing these testing’s help in detecting the operations allocated to the required function are executing according to the give criteria’s or not [37]. The defects or bugs by the management can be over come by using the testing models of software engineering which help in getting the accurate result and hence reduce the time period of the client.

**Eduardo Quaglia (2011)**

This research paper focuses on the scrum model of software engineering, which is used for designing the software project. The use of agile methodology can improve project management design and development as the scope increases and the incorporation of the scope can be easily done using the agile software development methodology which provides the project manager and the development team a flexibility to incorporate the changes requested by the client or the customer the system design can then be revised and updated as an when required by the client. The development team follows the scrum model so that at any stage of the project the requirements of the client can be incorporated and the system can function smoothly without any error in the system design and development [38]. This system helps in understanding the requirements of the customer clearly and also incorporating the changes at any stage of the project, which helps in reducing the system design, and development overcomes hence the requirements of the client are satisfied.

**Jorg Rech (2011)**

This research paper the author would like to focus on the repository of project management all the project developed and designed by the developers of the company are stored and kept available to be accessible for the developers who required the code for execution of the research project. All the information related to the project is stored in the repository of the project
database a separate data warehouse is prepared to store and manage these software projects each item about the previously executed project is stored in a data warehouse each warehouse collaborated and data is extracted from the data warehouse as an when enquired by the project manager of the software engineering project [39]. it is therefore decided to allocate the resources to the development and design of the research project as and when required by the team member of the project manager of the software engineering project under execution.

**Donald Brown (2011)**

Implementing The Service-Oriented Architecture in Project Management Software distributes the load of the server. The end-user thinks that all the services are implemented on a single server but using SOA we can reduce the load of a server by using multiple web services in a single website.

**Mulili Ali (2011)**

hospitals in the city in which they are working also they find it difficult to book appointments with hospitals as one main reason being communication is majorly done in native language (Arabic) thus it becomes difficult to books appointments find healthcare resources and also to purchase healthcare products. The software which I will be designing will be in English hence most of the visitors know English they will find it easy to connect with hospitals and book appointments with hospital and the doctor in charge.

**Baesens Bart (2011)**

This paper integrates the predictive model techniques of the software development project. In this paper a prediction model to inspire confidence in a business setting, there must be specific and precise [40]. Both aspects of the previous studies have been assessed by a software setting is likely to be. However, no univocal conclusion has been reached that the most appropriate technique. The study, by reporting on the results of large-scale benchmarking study addresses this issue. A variety of techniques such as M5 and CART tree / rule-based models are under consideration, including inducing techniques [46], such as linear regression, non-linear models (Tue, multi-layered perception neural networks, radial basis function networks and least squares
linear models of various types) vector machines support, and clearly (case-based reasoning approach, for example) that induce a model estimation techniques [41].

**Suzane Kate (2011)**

This research will also be providing transportation services online. The patient can book a cab online and the cab will take him to the hospital based on his timing and will also bring him back to his home. This service will help the visitor patients. Once the patient visits the doctor and the doctor prescribes him medicine it becomes important for the patient to take medicine from pharmacy. So, my next service will help him connect with the pharmacy available in his city. The cab which he has booked can drive him to the pharmacy if the patient has selected this service.

**Jugdev Kam (2011)**

This research article emphasises on on the project management software and outcomes its main features and integration with the resources which will overcome the liabilities information extract and collaboration. The PMS software system is more collaborative hence more information management can be achieved with less updating in the system analysis and design [42]. The design of the system can be achieved in less time hence the system is more productive and less time consuming system. Collaboration in today IT infrastructure is more important and more advisable while developing systems for software engineering and project management.

**Rada Roy (2011)**

This paper explains how the system are being designed and utilization of the resources and contribution to the system level development the Microsoft standards and real world systems tend to rely on their contribution to the development of useful software product for managing the Microsoft SF will follow [63]. Defense system, which is used by a wide range of other models from USA are accepted defense systems is the capability maturity model. According to the model adopted in the organization and their needs are important, which are used depending on model this system helps to integrate the various phases of software engineering project and management of the resources. Information collaboration and integration sounds good as mutual
collaboration on various stages of the project can be achieved implementation of system strategies are core values to the development environment.

**Selment Li (2011)**

This paper concentrates on the worker roles, which are used by the industrial infrastructure changes and how the workers will report their daily activity of the project under development and the system implementation of the same [42]. Authors with an object database management system, integrated software projects aim at building. This paper establishes a system to support the software project management model that describes the process [43]. The paper must also project manager for a framework that describes the content of the order of operations: workers sent progress reports based on the process model, based on the assessment of progress in accordance with the instructions for the workers, and the impact analysis of the issue is a problem detected. To provide these features, we view project management tasks from the analysis of the causes of activity per unit. Based on this analysis, the paper changed by actions involving the actions and states of a finite state machine model proposed [44].

**Lassenius Casper (2011)**

The paper explains the following system design in which the various processes can improve the over all system design of software engineering projects [25]. Its important to keep track of the various resources used and effectively manage all the resources. Most of the software development companies employ less or some time more man power in the software project so its important to manage the resources in the software engineering projects. Its important to notify the PM about the changes and developments, which take place in the software, project which will employ changes in the software product under development.

**Rakiling Zangu (2011)**

This paper focuses on the system design and implementation of various web resources used in the project management industry today liability of the execution of the project is necessary also a collaborative model for system design is more integrated and helps in the formation of the critical issues information synchronization is true in the industry today also the management of the manpower is critical in the industrial belt today information on this collaborative model is
scant and information standardization and collaboration is more critical and more task oriented collaboration with the industrial infrastructure is comprehensive and more critical [41]. Data optimization and utilization of resources is more valuable to the end users hence a collaborative model in is under development by the system engineering.

**Rowen Robert (2011)**

This paper explains the system design and development also it explains the system design and a futuristic approach for the development of the system modules. The software requirement prototyping and its uses are explained with elaboration related to the software engineering process and schedules. In this paper the author describes prototyping of a software engineering project needs is incomplete at the time of the software must be achieved before a prototype is built, which is the most important requirement. Its graphical way to prototype an important ambiguity needs to be resolved so that the phase of SDLC requirements [65]. The software engineering processes and the schedules are more collaborative and the system design is more integrated with all functional and non functional required catered together this system design and development connects to the resource utilization and information exchange among various phases of the software.

**Sinha (2011)**

This paper explains the data warehousing models used to model the industrial projects and also the ware housing techniques used for the implementation of the software projects. In this paper, data warehousing (DW) requires huge investments but also the data war John Callahan house market has experienced incredible growth. However, a large number of Dell initiative to end up as a failure [43]. In this paper, we have data warehousing process (DWP) in the maturity of such large-scale failures and mitigate the continuous, high-quality, timely data to "one version of the truth" can sure argue. However, unlike software development, DWP assessment of maturity has not yet been properly tackled. Highlighting the crucial importance of information as a corporate resource, we need to DWP cannot be more of a maturity model.

**Neumann Robert (2011)**
This paper focuses on the system design and implementation. In this paper the author of key software product line engineering (SPLE) is facing migration challenges suggest a medium-sized software organization. Comprehensive, anonymous market growth and product development for major customer based product - and multi-disciplinary systems and solutions engineering, software engineering, Software Engineering Company, embedding access to the market is characterized by two-fold [44]. A characterization of the business, SPLE software product subject to migration, and goals and are based on background SPLE initiative, seven key challenges are identified with respect to migration. The challenges of diversity in the face of multiple reuse approaches. Needs and diversity management, requirements traceability and variability management integration, legacy software and discipline - the exact opposite of software modularization; systems integration engineering, costing and pricing models, and project documentation against the product.

Fritz Stallinger (2011)
This research paper the author explains about the software product line, which is used by most of the developed software project management, companies some of the small-scale companies who would like to use the product line management system, which will help them in streamlining the product, developed, deployment and designing phase together in a common objective. Information availability and data availability are important parts in a software project its very important to have a good data driven approach for content management in the project [45]. The software industries are categorized into two parts product driven and client driven the product driven industry will follow this method of keeping a common workflow of the product and tracing the development of the product at each stage. When the software is migrating to a product driven approach there are several challenges each part heeds to be backed up while migrating the project to a product.

Luiz Fernando Capretz (2010)
In this research paper the author would like to through lights on how personality of individual effect the software development and projects in the IT industry. Every stage of software development has different persons who possess different personalities. The author suggests that if we select right person with adequate personality it can increase the chances of growth and also
the work at that stage can be completed more efficiently by choosing right personality person [46]. Designing of software is more often taken lightly as people with right personality can build products with good output in less time an more efficiently but the software development in terms of personality development is not looked upon thus resulting in taking a person who does not possess right skills suited for the development at this stage.

Vainikko Eero (2010)

This paper will help in system collaborative model and data extraction models. In this paper the author Sci-Cloud universities the opportunity to study the establishment of a private cloud is a project explains. With these clouds, researchers effective computation intensive scientific, mathematical, and academic problems to solve, use the already existing resources [47]. Sci-Cloud this poster displays and the scope of our research is to benefit from a set of programs and scientific calculation results reveal the scientific system development model this collaborative model is more accurate and more comprehensive.

Xavier Li (2010)

The E-healthcare software system. The patient can also find list of pharmacy in his city. This E-healthcare system is a collaborative software tool which will help connect patient and his necessary healthcare services to him at his home so that the trouble which the patients are facing today will be overcome and they will get an option to book appointments online with which ever hospital and the specialist. As we know that in Asian countries we have huge number of hospitals and pharmacy it becomes important to connect all the hospitals and the pharmacy together to serve the patient with the best available service.

Xiaopeng Lin (2010)

This paper will elaborate on the pay as you go model of cloud computing this system has various benefits as the resource utilization is more optimal and more conjunctive all the information is stored on the role based models which help in the design and implementation of the resources and focuses on the integral model of the system this cloud ready infrastructure is more resource friendly and consumption of the resources are more authentic and more connected adoption of information exchange can be achieved this system development model will help collaboration of
resources with system development tools and resource utilization tools in this technique this modularization is important concept [48].

**ZanZum Li (2010)**
The author have many hospitals which are rated as good, better, best and excellent but we are lacking in connecting these hospitals together and the services offered by these hospitals. We also need to connect pharmacy to the hospitals and. The process database (PDB) captures the performance data of completed projects. The process capability baseline (PCB) summarizes the performance across the projects. It thereby specifies quantitatively the range of results that have been obtained by following processes, and therefore the range of results to be expected if the same processes are followed.

**Mingu Kim (2010)**
The process capability baseline Whereas the PDB contains data for each project, the process capability baseline represents a snapshot of the capability of the process at some point in time in quantitative terms. The capability of a process is essentially the range of outcomes that can be expected by a project if the process is followed. The capability of a stable process can be determined from past performance of the process. If baselines are regular established, trends in the process capability can be obtained.

**Ali Hamdan (2010)**
As transportation services to these services which a patient may require. Different countries have different policies and procedures to follow while connecting these services together so that the stakeholders of the project can take benefit from. In the kingdom of Saudi Arabia, we are still lacking for such kind on service and still we follow the traditional procedures. We have two different kinds of hospitals government hospitals and private hospitals. The government hospitals are located in almost all cities around the kingdom and if the patient requires any medication they are open 24 by 7 and also the doctors and specialists are available 24 by 7 to take care of the patient. There are two different time slots available for the government hospitals morning time the patient needs to book an appointment.
Sulaiman Azmi (2010)
This Product will be used to collect the information from the different levels of software
development monitoring of the different levels of the project/product; it will monitor the entire
software development life cycle, the client and the developer interaction as all the documentation
work manager can manage all his developers activities of the clear picture product.

Yang Hongji (2010)
This model of software engineering and project management system elaborates on the data
mining and system integration models. This paper explains SOA migration is a complicated task.
To ensure the migration performance, some directions on modeling migration approaches are
needed. User-oriented SOA migration model is proposed in this paper. The model is defined as a
6 tuple [49]. Detailed descriptions on each tuple are addressed. In particular, the concrete
algorithm on matching scheme and final SOA migration scheme are provided. The model of
planning and deployment of a SOA migration project can benefit. An internal management
system for primary and secondary schools on a case study in migration projects are displayed in
the model. Through the analysis results, we concluded that this model is a promising
performance and system integration for modeled system design and implementation.

Sultan Mutari (2010)
With the doctor which he would like to meet for his medical condition this time slot can be
booked prior by visiting the nearby government hospital and at the reception he can show his
national ID which the patient has and after that the in charge person will check for validity of his
ID and also for the services provided to him if he or she is an government employee.

Koegel Maximilian (2010)
The author of this paper explains the software development and management process. The author
of this paper, a software-based configuration management system explain its most important
graphical models are difficult to configure and manage the various phases of the SDLC to
connect and correlate better graphical models, so it is important for the auto-configuration
model to the Textual material graph structure is geared models do not take into account, because
of the currency control systems, and they should support [50]. In this case the same file - every
time they changed the configuration of an item to be merged into the systems approach for conflict detection, the many false dhano. In this paper, we work directly on the issue of changing the model finds that the action-based conflict detection, motion. We file a case study based conflict detection performance compared to the conflict detection and action-based conflict detection results in less conflict and less is required to merge what's new in the system.

**Sunake bild (2010)**

after that he will receive an appointment date. Once he receives the appointment date the patient is required to visit the doctor at given date and time if the patient does not visit the doctor on time then he will not be allowed to visit him after the time is over in this case he will be required to reschedule his appointment again with the doctor and wait for his next visit this is really time-consuming process. Most of the patients is city face this problem of not getting appointment.

**Mandrioli Dino (2010)**
The system development and software engineering processes are more collaborative and web management system. In this paper the author has appreciated the work of the students to express their great cooperation and competition is being run, the software engineering project want to focus on the key importance [51]. And good quality of the paper to run the event planning committee members were facing the problems is explained. Colleges around the world, this event is most common projects undertaken by the different exhibitors the system is more focused in system design and development using information exchange. The students who are learning the system and software engineering the model based information and extraction model in software engineering will govern the users.

**Mohanad Mabiba (2010)**

SOA-PMS, a web based system, will run on Microsoft .Net platform. The user will access PMS through the web browser, request would be sent to the server, the functionality of the page would be rendered or performed by web services, which would reside on different web server, in order to reduce the load of main server. After the service is performed the result is either sent to the user on his browser or to the SQL Server
Hamid Ali (2010)
Time and also they are not able to visit the doctor at given time as they have other appointments or they have job at that time. Its important for the government hospitals to as the patient about his availability of time and not to given him appointment when he is busy and thus he will miss his appointment with the doctor instead the hospital reception of the person responsible for giving appointments to the patients should as the patient about his free slot and check if the doctor is available at this time if not then the responsible person should inform the patient about it as check for other days and doctors availability what every suits the patient should be booked as his time slot. This is where the private hospitals come into place and they are more flexible.

Wen-ping Zou (2010)
This system software designed and implantation and integration. This paper accidents in recent years, especially in engineering, large -scale public projects by engineers more and more attention has been paid to the general public were also explains. Large -scale public projects, traditional project management challenge for the security of the participants and complex process, such as the numbers involved [52]. What with the need to manage the risk of modern engineering practice should be. In this article, the theoretical risk of all engineering Research Foundation as a summary of the risk factors. In this paper, disserverment and isolation of traditional engineering and risk management system, considering the disadvantages of each stage of the engineering process, the traditional disadvantages of the project life cycle methodology idea is presented in the risk analysis. This article stages of the project life cycle, risk probability and risk analysis of risk by showing how to determine liability [60]. This works for engineering risk control research will help to make an analysis of the cellar system.

Faizan shaikh (2010)
In giving appointments to the patient. Hospitals play a vital role in solving medical related problems in everyone’s life as most of the hospitals provide best medical services which helps and solves many problems related to the patients who visit.

Donald Milk (2010)
Specialists who provide best medication to the patient based on his health conditions and give patient the best treatments most of the patients are suffering from conditions related to climate change such as fiver, cough and related diseases. It is the responsibility of the hospital to deploy a nurse for the patient who can keep track of the patients activity is necessary to treat him well and also record patients information related to heart beat and fiver also the nurse will give him.

**Thair Farzana (2010)**

Medicine on time. Its important for the patient to get his medicine in time so the medicine should be available at his place from the pharmacy before it gets over. Its also important to take the patient to the hospital in time so that the problems associated with the patient does not increase and he is cured in time and with the best medication available in the hospital.

**Thu Miling (2010)**

Hospitals have ambulance service which can be called by the patient to take him to the hospital incase he is every ill and cannot getup from his bed and go to the hospital. As most hospitals and the doctors, nurses in the hospital keep track of the patient on paper and no software is provided to them this is really cumbersome and takes lot of time to find the patients record when needed incase of surgery and other related issues in the hospital thus its important for hospitals to buy hospital management solutions which can be used by various stakeholders involved in the hospital and also all the record of the patient can be maintained online in a.

**Hyder Ali (2010)**

Centralized database system. Keeping record of patient is the most important activity of the hospital but some software’s are not online and they require special machines to keep then running this is also very difficult situation for the hospital and they need to spend more money and manpower to keep these software’s running so its important for the management of the hospital to select correct solution for the hospital so that all stakeholders of the hospital can use.

**Zung Zan (2010)**

The solution for improving the efficiency of the hospital and the operational cost of maintaining the software should also be less. Backup of the data is important and patient’s records should be
maintained in backup storage in case the software system crashes the information can be retrieved easily without much work to put it. Hospitals should be connected with the pharmacy which is working 24x7 and is providing all the medicines which are required by the hospital in time and without any delay. Software Solution should be available to connect hospitals to the pharmacy where the doctor can directly order medicine required by the patient online and the patient can collect his medicine when he reaches the pharmacy

Sankey Ukilin (2010)

It is considered that the machine that is being used for the PMS is having pre installed windows operating system and also the visual studio 2005 with .NET frame work 2.0 and IIS server installed on the machine. The database has been designed with appropriate normalization to ensure effective reference of tables. SQL server is used for quick and easy creation of tables. SQL queries are used for efficient retrieval and storage of data from the database.

Miky Zin (2010)

The result of testing not only helps to know which parts of the system are working below average but also helps to make the system more user-friendly. Testing is considered as an unavoidable part of any responsible record to develop a software system. Testing is a one step in the software process that could be viewed as destructive rather than constructive, as series of test cases are created to demolish the software that has been built

Sun markey (2010)

The system will also provide the data retention and handling of the data carefully wherever required and the data will be protected from the unauthorized access. The functionality of each module has to be thoroughly tested and validated before deploying it online. The module should perform in accordance with the design aspect. The functionality of the modules would be rendered via Web services running on different Server. Since the functionality would be rendered by other server, it must help in reducing the load of the main server hosting the system. The time required for passing the information to and from web service server and client side or SQL server should.

Mahdian Farzaneh ( 2010 )
This information exchange and information updating technique. In this paper the software architecture of a large, complex and distributed systems play an important role in the development explains. Service Oriented Architecture (SOA) for the development of the distribution system in a flexible, loosely coupled and dynamic architecture. Using this architecture, every day, dependable services in the Architecture building design software systems are one of the main challenges are increasing [53]. In this paper, we review the service-oriented architecture level, dependable services which integrates information updating and collaboration system design and development.

Liu Lianzhong (2010)
This paper the author explains about the resource utilization and how the resources and the requirements is not being freeze hence there is latency in the project deliverables. In this paper, more and more software organizations software development process are under the control of a software project, explains [54]. Current Requirements Management (RM) to deal with the lack of support in the software process, software process related to the RM system was analyzed. RM process and change management needs, by definition, a process depending on the RM were expressed by combining functions. The plan was also based on the RM Tool prototype. RM primary application in the process, improve the ability to effectively show how information and resource utilization can be easily achieved using the system design and implementation.

Alexander Boden (2009)
In this research article the author discusses about distributed software teams and their work culture. It’s been long time since the offshoring of software’s have begun and distributed team members are working on common goals across the globe. Thus it has become important to study operational behavior and strategic planning for the distributed teams around the globe. Project managers around the globe struggle to keep track of operations hence they have to work round the clock with different team members to keep the project going and without any difficulty its important to work with the project team members at different time intervals and with different strategic planning in mind to complete the required goal of the projects with in allocated time and budget [55]. Its important for a project manager to keep the team members from different
background and different parts of the world to work on a common problem without any problem thus creating a healthy environment and easy transition of work from one team member to other.

**Fago the (2009)**
The project home automation system allows users to connect and interact with devices within their home and to respond to the devices depending on the requirement. A raspberry Pi mini-computer acts as a server which is running an open source web server which hosts web interface this interface allows user to interact with the system and devices around the user any time with a web control interface, which can run on Tablets, PC and Smart Phones.

**Munagos kiski (2009)**
The home automation system today have many electronic and computerized systems which work in synchronization with each other to control various electronic devices in your home which include lights, bulbs, temperature sensors, garage doors, window shades and many more appliances which are around you in your home. This system is highly configurable an can adopt to the users requirements with slight or no modifications depending on the device the user is intending to connect to the system being designed. The system will work on intra-net connection, which is available in users home.

**Dginitfi Lunzing (2009)**
The mini-computer Raspberry Pi will be used to connect to the relay circuits, which will be further, connected to the switches. The mini-computer will also run a web server, which will host a web page the users can connect to the web page via a WIFI connection, and the URL provided the domain of the Mini-Computer and the users machine will have the same IP address. This system will allow users to control their homes using a central interface, which can be accessed, from any location from the home or 100meters from the location of the access-points.

**Nifity Augustu (2009)**
Most of the home automation system available in the market today are very expensive and do not provide a high level of customization. We need a system, which is easily customizable and can work like a plugin to the existing systems, which supply electricity to various appliances in your
home. Most of the appliances in the homework on voltage levels ranging from 110V-240V the current consumed by each appliance are different which ranges from 5Amp-2000Amp and much more depending on the devices.

**Justin blagritsit (2009)**
Most of the home automation systems allow today to manage and control various appliances around a human being in the home. Central controllers available in the market today, which are expensive, allow the users to configure and control devices of the same make or the brands these devices can be bulbs, lights, electric fan, room heater, water heater, garage doors and many more but the drawback remains that one has to stick to the vendors available for the products. The research project “Designing A Low Cost And Full Compute Home Automation System”, provides a mechanism to the user to connect with the device around him and interact with them also to receive data from the devices and take necessary actions depending on the configuration of the device. The user has the flexibility to connect and disconnect to the devices at any point of time. mini-Computer Raspberry Pi is working as a web server running on an open source operating system. The open source web server is installed and configured on this mini computer to work as a web application server so that the user can connect. The mini-computer Raspberry Pi is a very small in size, which has a GPU The Broadcom SoC used in the Raspberry Pi is equivalent to a chip used in an old smartphone (Android or iPhone). The relay switches are devices which can operate at a very how current and voltage but they can switch every high voltages and current at the output.

**Hinsuzing Limiting (2009)**
One of technology’s main objectives is to providing comfort to humans. However, it has to be easy to install, use and maintain. The ever-developing complexity of technological systems could only be accomplished by converging different technologies. This is usually called as Cyber-Physical Systems (CPS). This paper tries to show the combination between two technologies such as Heat-pump System and Wireless Sensor Network (WSN) to provide a new control mechanism for new building generations so-called smart houses. The proposed control architecture benefits from our developed WSN hardware platform. It allows the user to control
and monitor the ventilation system using our developed mobile application and/or a personal computer.

**Gunes Koru (2009)**

The author of this research paper emphasizes on the defects in the software projects related to the size of the modules in the project. Coding is one of the most problematic things to understand by the developers who have not written the modules. Identifying the bugs in the modules becomes cumbersome for the developers thus resulting in project failures most of the time its found that the modules with less code have more bugs then the modules with large amount of LOC (line of code). Classes implemented using the developers grow in size as the modules in the project increase each class needs to be checked for errors and then rectified by the developer currently working on the project its found that small classes have more problems then large classes [56]. The quality assurance team members have to check for such failures in the classes which are not functioning correctly and rectify the code as an when needed by the system thus delivering the project to the end user without any bugs.

**Li Kewen (2009)**

This paper elaborates on the system integration of software the comprehensive Uncertainties should be considered in this paper as a resource - constrained multi-project management, software engineering has an important significance is explained. Such as CPM, irrational, CCPM, and the dynamic characteristics of software multi-project management as a popular and significant approaches are based on a detailed analysis [57], the paper resource - make sure to limit the problem to a dynamic model with project and activity weights argues multi-project, and analyzes an example in detail [51]. This method is also suitable for other domains in the same complex project management can be overcome using this technique.

**Ning Nan (2009)**

In this research work the author describes the pressure of schedule and effort which impact the development of the software project the impact is very high as most of the IT project managers
work under pressure and hence they are required to deliver the project which in the delivery date of the project hence the project pressure is more. The author has used the relation with the software development lifecycle. Budget pressure also effects the development of the software project the project manager has to bit all the requirements of the client in the project under development in the allocated budget this increases the pressure on the project manager and the development process of the project this is also one of the factors affecting the project life cycle.

Jaideep Ghosh (2009)
In this research article the author unfolds the concurrent execution of software engineering projects and how to keep track of various activities, which are taking place in the concurrent execution of software engineering and project management solutions. Overlapping the development activities in the software projects can save time and resource, which can further be used for more productive work. Time management is one of the most important things in concurrent execution of tasks in software projects. The procedures, which need to be followed while executing tasks in a project under such circumstances, need to be clearly defined and executed by each team member working on overlapping projects. Information from one module should be provided to the other module as and when required thus reducing time for executing the functions in a software development project. The motivation of this will come from the managerial departments of the software company. The project managers job is to execute these kind of projects very carefully and also to utilize the available resources to its fullest.

John Dhlamini (2009)
The author of this research paper would like to focus on the software tools which have been used to manage the risk in a software engineering project each tool is important which will not only keep the record of risk but also provide reporting to the tester of the software engineering project to keep track of the risks which are evolving in the due course of time. Risk management tools help in keeping track or the bugs in the software engineering project while the reporting tools help in generating the reports and keeping them aligned with the corrective and preventive measures used to manage the project risks. There is a need for generic tool which will provide a functional integration with the design of the software and will log all the bugs in the software
and generate preventive and corrective actions depending on the risk associated with the project each project management system will proved this integration of bug fixing using this tool.

**Discher Andreas (2009)**
This paper has a predictive model explain the technicality of the various resources available as the services and how information will be of more concern. how resources will be utilized more effectively and efficiently to produce the product required. Various services of the database will interact with algorithms to give the exact information extraction and critical information flow will be achieved [58]. There are so many business web services available in the market today its important to maintain the technicality and information integration to keep them working in synchronization with each other its important to keep dedicated web servers and information mutation can be achieved with collaborative responsive machines. The portfolio management is also an integral part of the information colocation.

**Hua W Winnie (2009)**
This paper focuses on the collaborative model for SOA the large scale industry which focuses on the software development models the service oriented architecture and development model [59]. The Software development system uses SOA the industrial data managed and collaborated using the web-based models, which will manage the resources, and systems in the organization SOA model the system design and configuration and system design and model the information integration into the system design for collaborative system model in the industry. Information can be accessed over the system design and implementation and design. The SOA model will provide and interactive model for phases of the software engineering.

**Liu Jun (2009)**
In this paper the information, which is concerned with the problems, which are faced by the SOA system the adoption of the system SOA which will integrate and focus using the system implementation and design which will focus on the collaborative web models which connect and synchronize the data [60]. There are various IT related problems faced by the information technology system design and implementation and integrations the changes in the infrastructure and system design will affect the various resources. IT resource utilization and system design
will affect the system design and coding. The Cloud base architectures are readily implemented in the system design and information in integrated model this system will help the resource utilization effectively and efficiently to collaborate with the phases.

**Neisse Ricardo (2009)**

In this paper the author explains the overall system design the dynamic system design that helps in the development of the infrastructure, which will help to incorporate the system SOA features and system implementation. In this paper the author describes a business process to service assignment dynamic behavior [61]. The majority of companies in the software engineering process to provide services for a variety of domains, but we need a model that cater to the needs of the business to provide proper service, and thus requires and infrastructure developers never growing processing important operations Business not affected by the dynamic and easy access to essential services for the best service provider reassigns.

**Chen Dejun (2009)**

This paper explains the implementation concepts of the infrastructural cluster design and development this collaborative model integrates the overview of the virtual enterprise control system which integrates the system [62]. Today most of the resources are available virtually and system which are virtual needs to be managed virtually all information management is done virtually and configuration of the virtual resources are more focused which collaborate with infrastructural changes. The service-oriented architecture virtually manages all the resources and information management is more important and collaborative models integrate integration of the system design and implementation [32]. Collaboration of the virtual resources is also important. This model focuses on the system design for virtual environments.

**Helming Jonas (2009)**

This paper explains the various tools, which can help in collaboration of the various. Information virtualization and collaboration is more imperative in this technological world, which is more ready and collaborative [63]. Most of the tools that can be used for modeling the resources can be collaborative and connected. Some of the tools which are required at the initial stage which can be more collaborative and connected. Some of the tools used by the organization are not
integrated so we need some tools which can provide integration of various functionalities which help in forming the system design and collaboration [34].

**Yongyi Zhao (2009)**

This paper explains the system model of the various phases used to integrate the workflow of the organization information is more collaborative and integrated of the workflow there needs to be a collection and synchronization of various workflows and system integration also to keep the data up-to-date and maintain the resource system overviews information collaboration is good but the system designed to collect all the data is not more informative [64] today we are at the stage of information most of the workflow systems are integrated system comprehensive data management will provide and integrated model of the workflows various strategically designed system software are implemented using the system collaborative models today are more enhanced and more integrated its due to collaboration is more connected and more integrated [36].

**Mashkif Nir (2009)**

The paper focuses on the various business models which are used for implementation of the system design and collaboration its critical today to integrate most of the information today due to lack of availability of resources [65]. The strategically implemented model needs to be followed while implementing the system strategies all the system models designed for collaborative workflow is more integrated and more comprehensive most of the system design tools have been used to integrate the system architecture.

**Betz Stefanie (2009)**

This paper emphasizes on the model, which will provide collaborative integration of the resources and infrastructural changes which will help in education for the students of software engineering this model will become a role model while the software engineering students concentrate on the system design and implementation of the resources this will help to boom the overall software engineering course the system design [66]. Today designing systems with critical paths is also important and need lots of resources these resources are more valuable to the industry importantly its consuming more and more resources and hence development get more
faster. Most of the college graduates lack in the system design and implementation model hence there is a lacuna for information about integration and management of the virtual and physical resources.

**Jingchun Feng (2009)**

The paper explains the contractors model used for implementing the software projects in the industry today most of the system designed today are contractual and information collaboration is more contractual data with contract information is critical and more elaborative which helps in development system design and connected models the contractual model faces most of the problems and how to overcome these problems using the steady model is important in the software industry projects [39]. Most of the industrial designs are comparative models which comprise of system overlays and connection issues with the system designs and integrations which is a critical issues while implementing these projects hence the optimal resource utilization in the industrial project is necessary [67]. Today this project design and implementation is crucial and also critical this project helps in model integration and synchronization modulations. Imperative data is also required to execute the projects.

**Leping Chen (2009)**

In this research article the author discusses the problems faced in project management. When a company has many project to execute an the resources are limited its becomes a tedious job for the project manager to schedule the project activities and execute them simultaneously without loosing time and utilizing the manpower to its fullest. But the most important problem in multi-project execution is how to schedule the activities in a software project its important to schedule multi-project activities with some weight on each activity so that the priorities can be identified and based on the priorities the activities can be executed in the project [68]. The project manager is responsible to add weight to the activities based on the delivery time of the project and its modules so that the delivery of the software projects can be done on time or at least the modules can be delivered on time without any delay time.

**Michael Godfrey (2009)**
The author describes how the mining tools can help in software development and improves productivity by answering simple and complex questions of the developers and project managers. The software mining is important to collect information about various activities going on in the project and also to keep track of the project progress at each stage of project management we need to have mining of information an keep all the activities in the project synced so that the stakeholders of the project do not face any problem in later stages of the project under development and all the activities are recorded so that the future of the project under development can be tracked easily. Software archives will collect and keep track of all the information about the previously executed project and the difficulties faced in the execution of the project by the company mining algorithms should be implemented to extract these difficulties and also make use of the information for improving the future of project development in the company [69]. The modern development will improve the tagging and accessing the right information from the repository by mining the correct information within minimum time period and will help the developers to get exact data as and when required by the project.

**Michael Cusumano (2009)**

The author of this research article elaborated on various software development models used in the software industry today. The software development models chosen by the companies for the project execution depends on the success of the project, which was developed using the previously executed projects. The model remains unchanged even if the project requires some other model to be used. This is a common setback in many software industries today. Most of the software development companies follow the iterative model where the requirements of the client keep on changing and at each stage of project management software design and development. The developers who are working on the project need to incorporate the changes mentioned by the client so that the end users are satisfied by the product which is delivered to them by the software development company and also all the functionalities are achieved by the software which is required at the end users premises.

**Chen Dejun (2009)**

This paper has a collaborative model for the service industry the service-oriented model is used for developing the projects with extra efforts of the web services. In this paper, Service Oriented
Architecture (SOA) approach to software engineering as well as on the analysis of an organization's business layer has a significant effect explains. In this paper we Enterprise Architecture (EA) framework using the SOA concept exists between these two approaches is that the Synergy optimizes display [70]. The Service Oriented Enterprise Architecture (SOEA) in the SOA and EA integration roadmap will examine the characteristics of this relationship before proposing. Leading to a successful implementation of a project of this kind will discuss some of the administrative aspects of the software project under development.

Rini van Solingen (2009)
In this research article the author enlightens how follow up of software project under execution is important in the software industry and which leads to return on investment which is important part of the software project under development there are many tools and techniques available in the market which help in follow up process improvement and monitoring which leads to execution of the project on time and within allocated budget. This paper uses the case studies of the research article, which was published in IEEE software transactions special issue on return on investment, which uses case study of 20 different ROI improvements [71]. Its important for a software development company to protect the ROI of the customer who has given the project to the company and it needs to be delivered on time without any flaw so that the time and investment maid will bring back his benefits and the customer will get back his ROI.

Bill Curtis (2008)
The author of this research article focuses on how the software development company can determine that the software system under development can be delivered to the end user within specific time period and with all the functionalities mentioned when the requirement of the client keeps on changing and with no limits there is a tradeoff between the quality an quantity of features which the company has targeted within specified time to the end user if the end user keeps on changing his requirements the company will not be able to deliver the product on time and also the quality will be compromised if the end user keeps on adding features at different phases of the software development life cycle. Thus creating a product, which will not be appreciated, by the end user nor all the functionalities will be performing as the end users want it from the product which the company delivers.
Feig Ephraim (2008)
The authors aim at constructing various strategies which help in the development of the software projects so that most powerful system can govern the industrial growth. The SOA architecture will provide various web services to the system with which comes lots of security and vulnerability issues which can be tackled using the system design and development also the information will be more service based rather than product based but security will be of major concerned which will collect information from various phases of the software development lifecycle the [26]. SOA architecture will provide the users the flexibility with easy adoption of web services and development environments.

Barbara Paech (2008)
The author of this research article would like to emphasize on the challenges the industry is facing in getting the right software engineer who can cater to the needs of requirement engineering. Requirement being one of the most important aspect of software engineering and project management life cycle its crucial to higher a right person with exact skills for requirement engineering. If the requirements are not properly understood by the requirement engineer the final product, which will be delivered, will not be exactly to the end users specification hence the company will face problems in delivering the required output to the client. Hence there is a need to standardize requirement engineering and also certification should be made compulsory for the person who is recruited by the company follows some standards for capturing and gathering requirements from the clients easily.

Jose Eduardo (2008)
In this research article the author addresses the issues, which are faced in project management software, and the time, which is spent in correcting the problems, faced during the execution of the project. The algorithm developed by the author would solve these problems and collaborate various phases of project management to achieve the end product for the customer. Most of the IT projects fail due to lack of availability of resources, which include human resources and skilled professional for the project, which the software development company would like to execute. The programming model suggested by the author will provide simultaneous execution
of various activities in the project thus making the project execution and delivery on time the author has used case studies to check the accuracy of the project execution and has solved the project acceleration problem thus providing the project to the end user within allocated time.

**Kim Man Lui (2008)**

The author of this research article throws light on the software engineering projects, which have been a failure, and the failure was overcome by changing the members of the project team and getting the work done for successful completion of the project within allocated budget and time given to the customer of the company. Most of the time it is noticed that lack of availability of skilled manpower for a given project is difficult to find so the software development companies find resources that have some experience with handling small projects. The companies deploy these developers on the project whose volume of configuration and deployment is huge which later results in a miss managed project. The project manager needs to keep track of the project and find solution to the problems, which are identified by project manager. The manager can try to change the members deployed on the project and then make progress on the software project.

**Enrique Alba (2007)**

This research emphasizes on the generic algorithm for the software project management the system which incorporates this generic algorithm to manage all the resources will be a more efficient system. Time management and resource allocation with in stipulated time is a important factor which executing the software engineering project getting the right resource to work at right time is also very important and crucial factor which pays and important part while the budgets are creeping in the project and the time is reducing.

**Daniela Damian (2006)**

In this research project the author would like to explain that requirement engineering is an important part of project management the system is designed such that the project should cover all the aspects required by the client. Requirement is the first and foremost part of the software engineering project with out requirement no project can be executed hence its very important to gather the current requirement from the client so that the project can be executed with in time and allocated budget by the client software which are allocated right budget and time will
perform all the intended operations correctly and with out any difficulty most of the layoffs in software engineering project occur due to incorrect requirement and insufficient time and budget.

**Justin Beaver (2006)**

This research paper focuses on the team quality and adequate resource utilization. Skilled workforce is also important to get the correct outcomes in a software project. It is the task of project manager to deploy correct skilled developer in the project so that the resultant outcome of the project will be correct. The quality of the software development depends on the selection of the correct staff which will provide correct outcomes and results if the staff working on the project is not having adequate knowledge and skills required for executing the project and developing the system then the time and money spent on the product development will be of no use and the company will incur a great loss. Hence its important for a project manager to select and deploy skilled workforce on the software project under project development.

**Arthur Pyster (2005)**

In this research paper the author describes the project management software’s 20 year later as there will be a revolution in the IT industry and the need of software for managing various projects will increase and the requirement of the projects will also increase hence there will be need of new tools and techniques to manage these projects also the work culture and its requirements will also change and hence there will be need for highly sophisticated software to manage the change and its requirement’s.

**Georgine Beranek (2005)**

This research paper focuses on the role which the individual plays in the team. The author contributes in this research paper how important it is to have human behavior in team collaboration and software project execution. Each team member should function according to the role distributed by the project manager to the individual and the team each member will perform his duties according to the allocated work and his duties each team member has to contribute to the project with in allocated time so that the outcome of one member in the software project can be distributed to the other members who rely on the outcome of the first member. Time management and resource management play a critical role in successful completion of the research project.
Jai Asundi (2005)
This research article focuses on the open source software which is highly adopted in the IT industry today most of the software companies today are using the open source tools to manage and get data at one location a lot of project management is done using the open source tools available in the market today but still there are some configuration and installation issues in these project management software’s.

Jarno Vahaniitty (2005)
This research article focuses on the framework for project management and how it will help in long-term business development its very important for a long term business to maintain a data warehouse for managing and maintaining the projects which will be taken by the company. All the resource allocation will be done by using a project management software which will collect the data from various sources and will store them in a common repository which will help the company to view and utilize this data from the data base a as and when it is required by the development team also the high level management can view the content of this research work.

Alan Howard (2001)
In purpose of this paper is have the right resource selection for managing and executing the software project its critical for a project manager to select the right resource and allocate the correct resource to the correct project. The resource allocation is based on the technical skills of the project developer and then the software which is used for allocating the project resource should be well understood by the project manager and should provide the functionality required by the project manager.

Roy Rada (2001)
The author focuses on the software engineering standards which are available in the market today most of the companies are not following the appropriate standards they are more inclined towards the customer requirements and based on the requirements they decide which software engineering standards to follow as most of the features in the standards are common. The
Microsoft standard and the CMM standard which are used in the market today for software engineering project management system.

Ramsin (2010)
In this paper the problems between the workers and the project managers is explained all the problems which are associated to planning and resource allocation of the project are taken into consideration all the modules integrate some or the other scheduling algorithms which keep track of all the activities of the workers and the project manager [14].