CHAPTER-6

WISHLIST-ERA: CONCEPT MOBILE SHOPPING

6.1 INTRODUCTION

Traditional buying action appears to go away method to digital business. But you may still find many individuals who desire or enjoy the old-fashioned situational shopping. This study work attempts to offer approaches and useful resources for customers buying. Using the recognition and up-coming of the all-pervasive computing technologies, the study is suggested to create a sort of ubiquitous system. Buying performs an extremely importance function within our day to day existence. We are in need of all types of merchandises to fill our function wants and existence. Choosing the shopping area, realizing the necessity, researching the products info, producing the shopping choice, spending and providing write the common actions within the shopping procedure. Since it's centered on shopping procedures this technique was created particularly for your shopping routines.

The improvement of the Web has marketed the advancement of the Digital Business. More and more individuals commit themselves for the net store to appreciate the advantages and comfort. But that doesn't imply the store would evaporate or individuals would get fed up with the buying on the picture. There has to be plenty of individuals continuing the buying in actual globe. The shopping program supplies the person with the skill to produce a buying wish-list with up-to-date costs and thing pictures, look for products in a shop database, display provides centered on items within the shopping checklist, and display a store chart with the items within the shopping checklist outlined to make sure they are simpler to discover. The important determination for this study function could be the requirement of such a notion in the present situation for our market. The flexibility of the system in the sense that it can serve all the classes of the society keeping in mind that mobile computing has become indispensable and ubiquitous was another driving force. The system can be extended to any place of public gathering for services, such as Railway Stations, Airports, Hospitals, Hospitality Industry and so on to numerous domains. Personally, the difficulties we ourselves faced as customers during our visits to various malls contributed towards this development step.
6.1.1 **Background**

The shopping activity has a very old and remarkable history. It has seen many trends and influences in the way it is carried out. Real-world shopping action appears to create method for digital business, but nevertheless many individuals favor the old-fashioned situational shopping. Simultaneously, the satisfactory effectiveness and total consciousness of conventional buying is better. The research proves that there hasn’t been yet a complete solution for aiding shoppers in their activity. This is so because every individual has a different pick and perspective.

6.1.2 **Need**

- Stress factor
- Time factor
- Budget allowances not possible
- Requires a lot of roaming in terms of search for the desired items.
- Checking availability of items is a tiring task.
- Items to be purchased are often misunderstood or forgotten.
6.2 LITERATURE SURVEY

A literature review is a text composed by somebody to think about the crucial points of present understanding including purposeful results along with methodological and theoretical efforts to some special issue. Books evaluations are as, and supplementary resources, don't statement any fresh or first fresh work. Lots of function continues to be completed in these areas by scientists. This part of study enlightens briefly on some of work done by those researchers. The work from various books, papers, articles, journals has been referred for this purpose. It is humble approach to thank those researchers whose work done will be referred in this research. Some of them are mentioned in this article.

(1) Chun-Xia et al. (2010)

The writers say that real-world buying action appears to create method to digital business. But there're nevertheless tons of individuals desire or enjoy this conventional buying. Using the recognition of the mobile processing technologies, rapid development is got by mobile devices. The writers suggested to create a sort of excellent mobile apparatus. This apparatus was created particularly for your buying capabilities. The entire buying procedure is split in to three steps: pre-shopping step, continuing-shopping step and post-shopping step. Different mobile computing is needed by different shopping steps. Once they purchase goods the apparatus is planned to contain every essential capabilities consumer require. For pre-shopping measure, things to buy and where you can buy issues is going to be resolved with comparable functions modules. Cost assessment, merchandise info and professional idea solutions might be comprised in continuing - shopping module of the apparatus. Once each goes for buying the apparatus that's to become created should contain every essential capabilities consumer require. Apparatus must be designed with wifi link to set component of N/w. Use of technologies like GIS, RFID, Expert systems and Mobile payment should be implemented. Overall shopping process should be divided into 3 phases namely: Pre-shopping computing, Ongoing-shopping computing and post-shopping computing. Research should be done mainly in 5 categories namely: (a) Wireless N/W infrastructure, (b) Mobile middleware, (c) Wireless user infrastructure, (d) Mobile commerce theory and research, (5) Mobile commerce cases and applications.
(2) Qi et al. (2010)

The writers attempt to supply approaches and useful resources for customers buying. Using the recognition and up-coming of the all-pervasive computing technologies, we expect to create a sort of ubiquitous media apparatus. Since it's centered on shopping procedures this apparatus was created particularly for your shopping routines. Different ubiquitous computing is needed by different shopping steps. The apparatus is planned to contain every essential capabilities customer need. For before shopping step, what and where to buy will be solved with corresponding functions. Product information and quality, price comparison and expert suggestion services could be contained in during-shopping module. The post-shopping module is designed with the payment processing, logistics suggestion and service/maintenance information management. Typical activities involved in shopping process are recognizing the requirement, selecting the shopping place, gathering information about merchandise, taking decision, payment and delivery of product. Implementation of sensor technology, multimedia process technology, GPS, GIS, RFID is possible. Design of such ubiquitous device should be done for shopping process.

(3) He et al. (2010)

Distance mobile social networks (PMSNs) are generally assembled in random manner to enable info sharing customers among and conversation in proximity - based communities through supportive solutions. Reliable information propagation functions as a simple element for numerous programs of PMSN (e.g. propagating ad, probing nearby friends, and so on.). The writers propose structures for information distribution in PMSN applications in user and extremely powerful - dense environments including in pupil dormitories, busy sports, and shopping malls. The planned information propagation depends on node flexibility and regular retransmission of the information. They run complex simulations under various flexibility versions, and demonstrate that the suggested reliable information propagation exhibits exceptional reliability, efficacy, and robustness. The system that has to be developed should be evaluated under parameters like performance optimization, improving cooperation, merging the developed system with other available services and platform independency. Adaptive message propagation should be incorporated. Several message propagation protocols should be studied.
(4) Liapis et al. (2010)
The writers describes Context aware, customized solutions with mobile phones well-timed and focused information in a method. Additionally they current the execution and design of the inexpensive, customized and place based buying ad support for cellular telephone customers. The support is meant to operate over Wi-Fi connections between an Manager Area found in a shopping center or mall and onboard or hand-held cellular products. They explain an Ontology based formula of marketed and user products users and the procedure accompanied by an Ontology reasoner to choose advertisements that may curiosity a specific user with large likelihood. Powerful variables for example the time and person area will also be taken into consideration within the collection. A model service execution utilizing the OSGi system can also be talked about. The implementation portable was made by the OSGi technology enough to operate on the fantastic number of servers and customers. Finally, conversation and computational resource restrictions and user privacy problems are enjoying an essential function in style.

(5) Koh (1999)
The writers says that in society various goods are created to fill the wishes of varied customers and because the features and the desires of consumers are form and energetic, the production methods are changed from little things mass manufacturing program to several items small production program. The customers can't get adequate and adequate sales info of goods due to the period and spatial restrictions. To handle these circumstances it's essential to build the online shopping malls empowering the remote shopping through systems [60]. Within this study the writers created the model of small-scale online shopping mall. The small - scale online shopping mall enhances the gains of both companies and customers linked through systems. The effects with this study are: building practical online shopping mall depending on the image, moving the basic systems of cyber shopping mall buildings to small- size businesses, initiating the digital business through showing the ramifications of cyber shopping mall to customers, providing the acknowledgement of inexpensive advertising to the commodities providers, the absolute option improvement by mixing the data processing systems, data conversation technologies, and info style systems. The facts of study actions are: The fundamental design of little size cyber shopping mall, the depth style of interface, The detail design of database and software.
applications, the detail design of system methods and protection systems, The detail design of customer support program, The model execution of little-scale cyber shopping mall, The demo of cyber shopping mall. The name Essential Technologies for Building the Small - Scale Online Shopping Mall certainly indicates that the simple technologies and important parts needed in implementing and creating a tiny size cyber shopping mall.

Advantages:

- Convenient and simple for the customers
- Efforts and Time saver
- Much reliable as personalization is maintained

Disadvantages:

The implementation is costly and complex at the initial stage as the infrastructure required is expensive and requires continuous database updating and maintenance.

(6) Aida et al. (2011)

The writers present experiment called "Timely Timely" was a assessment of the program where ubiquitous sensor's information and reporter's reports are shown on electronic signs and wise phones. This test was occurred in a retail center called "Lalaport Kashiwanoha" in Chiba, Asia. The writers have applied and created an information submission program in which they are able to stipulate which information should achieve which clients. Indicating the particular info is called "Station" as well as the information getting applications working on Android smart phones is called "Ubiroid". Each station is explained by a USDL (Universal Service Description Language) based on XML. The customers and designers can simply search and use stations because of this markup vocabulary. The writers rent 20 Android smart phones for the visitors and obtained survey outcomes from people who participated in this test. This document provides design, execution, and assessment of "Timely Timely" and additionally exhibits the outcomes in the test surveys.

The title of the test was omnipresent park. For common devices, they utilized human recognition devices, climate devices, and CO2 devices. Large amounts of information resources were accessible so filtering formula to create the information helpful to all clients are utilized.
(7) Davis et al. (2006)

The authors explain a private hand-held multi-modal Shopping Assistant they've created to help the customer in among the most program jobs, supermarket shopping. The Purchasing Assistant gives the consumer with the skill to produce a shopping listing with up-to-date costs and merchandise pictures, look for products in a retailer database, suggest recipes centered on items within the shopping list, and show a store chart with the items within the shopping list outlined to make sure they are simpler to discover. The consumer may connect to the individual portable shopping assistant making use of text, images, and presentation. We not simply explain the Purchasing Assistant but also present its several helpful characteristics. Multi-modal interaction with the person is employed as there might be distinctions in ways of interaction the user desires. Therefore the availability of consumer for ability degree, various ages and organic languages [61] is kept. Artificial intelligence is ingrained in program and immediate adjustment is conducted by mouse or computer keyboard. Shopping helper gives attributes to the consumer like merchandise area, Listing conduit and easy conversation using the consumer.

Grocery list database is preserved which includes details like item identity, maker identity, kind title, quality, cost and day. When products are added Shopping helper is individual and versatile. Searching and manipulating the shopping list. Price comparison between two lists can be done. List could be sent over to other user in XML format along with a message. Shop maps displaying the precise place of them exists. Recipes can be shown and the ingredients needed in it are specified with the location. This really is immediate and more powerful way of advertising, because the things being advertised are of special use towards the client. For execution OQO portable pc, the SRI DynaSpeak speech recognition computer software, The ATT Natural Sounds speech synthesis computer software along with a host is required. The program may be used in for potential using the current mobile phone.
(8) Takemoto et al. (2007)

The writers presented ubiquitous computing conditions that are required to permit us to utilize several types of capabilities, products, and advice (i.e., support parts) and to benefit from the brand new types of providers. Nevertheless, the enormous amount of service parts indicates that choosing an appropriate service, finding and hunting for is hard. Managing the service elements is crucial for providers on common computing service conditions. In special, assortment of support elements is significant, challenging, and really should be done around the foundation of the circumstance, that is attained in common computing conditions. The writers used the social system notion, which addresses human associations in systems, to attain the info supply support. We now have applied the info recommendation system, through which suitable information may be obtained by users in the program predicated on associations with additional users within the social community support. They consider that info employed by individuals ought to be handled depending on their behaviour. An information has been developed by them - supply service depending on their system. They've been examining and creating the support co-ordination and supply design Ubiquitous Service-Oriented Network (USON) for providers in ubiquitous computing environments. An information provision service has been developed by them making use of the social community service centered on USON architecture. This demo exhibits the execution of the information supply program with the real information that was utilized in the field test. To enjoy in numerous functionality of various devices it is essential to have a widespread computing environment. Managing and handling these devices and its specified task, is important, difficult and expected to be achieved in this computing environment. Social media ideas have already been implemented which addresses relationships to individuals in n / w, with the political orientation that information utilized by individuals should be handled on their behaviour. In USON design service component is targeted by each entity with two level interfaces (SE), where the service component has its software description. Widespread environment should be included in the system so that it provides numerous functionality and information. Social networking could be done in future to increase the awareness of the application. The implementation mentioned can be used for transmission of list.
(9) Asthana (1994)

The writers say that by adding wireless, video, language and real-time information entry systems, a distinctive shopping assistant support could be produced that personalizes the interest supplied to some client depending on person demands, without restricting his motion, or creating interruptions for others within the shopping heart. The writers have created this notion into something based on two products: a very large volume hand-held wireless communications gadget, the PSA (Personal Purchasing Assistant), that the client possesses (or might be supplied to a customer by the store), and a central host situated in the shopping middle to which the customer communicates utilizing the PSA. The central host keeps the client database, the shop database and sound visual answers to queries from hundreds of clients in real-time over a little place wifi system.

A buying assistant may be produced which may personalize attention directed at the client according to their wants. Device guides the customer details of product via screen, allows scanning, comparative price analysis, locate items. Due to nomadic nature of humans, shopping by catalogue is not going to take over the world. People like to roam around in malls but frustration comes when they cannot find right things and its price. PSA simply relays the information to and from the server. Server acts as the cell controller of the database for registered customers, which is modified by system on interaction with the customer. Store database has price and inventory of the items and service components. There is Implementations with wireless n/w, image compressions, low power circuits, database and active memories. They focuses on the importance of creating a list while shopping. Customer frustration can be reduced by creating a map which we will be implementing in the research. Concept of database mentioned can be implemented in the system.
Feasibility Study:
An on-field survey has been conducted by visiting various organizations/malls and interacted with the concerned authorities to check and put the feasibility of this research work to test. Like, for example on the visit to SGS/Magnum mall received a very positive response from the mall officials with regards to the system implementation and actual feasibility. It has been concluded that the implementation would require certain infrastructure pre-requisites like Wi-Fi/Bluetooth connectivity to point out a few. Having met all the requirements the system would be thoroughly feasible.
6.3 THE PROPOSED SYSTEM

Choosing the shopping area, realizing the demand, researching the products info, producing the shopping choice, spending and providing write the common actions within the shopping procedure. Since it's centered on shopping procedures this technique was created particularly for your shopping routines.

6.3.1 Problem Definition:

This research work aims at developing a very useful application that shoppers or visitors can use before or after visiting any mall for shopping. Using this application a customer can enter the list of items he/she wants to purchase or create a wish list of desired items for which he/she desires to check out the availability. This list is then transferred to a central database installed in the mall using Bluetooth or Wi-Fi preferably; further the prescribed items will be compared with the available items in the mall. The list of items which are available in the mall will be further retrieved to the shopper with detailed information of the shop in which the particular item is available and approximate location of the shop. If certain items are not available in the mall then approximate date of availability will be provided.

6.3.2 Features:

- Download the application in the mall using Bluetooth.
- Wish list creation and processing.
- Browse through various categories of items.
- Search and view the location of desired items.

6.3.3 Constraints:

- User should have a smart phone that supports android 2.3.3 or higher.
- Mall should be Wi-Fi enabled.
- User should within the proximity of mall.
6.4 RESEARCH METHODOLOGY
A methodology is usually a guideline system for solving a problem, with specific components such as phases, tasks, methods, techniques and tools. It can be defined also as the analysis of the principles of methods, rules, and postulates employed by a discipline. A methodology can be considered to include multiple methods, each as applied to various facets of the whole scope of the methodology. The research can be divided between two parts; they are qualitative research and quantitative research.

6.4.1 The research work steps:
Steps to carry out work:
Steps for User to use the mobile application:
Step-1: Download the application:
   a) Bluetooth:  i) Turn on Bluetooth ii) Connect with server iii) Server sends the application and user downloads it
   b) FTP Uploaded: Application location links
Step-2:  Sign up Registration of the customer through the application
Step-3:  Sign in the system
Step-4:  Once the user signs in he gets following options:
   a) Browse
   b) Search
   c) View Location
   d) View wish-list
Step-5:  The user can create his wish-list using the available browse and search option
Step-6:  As the user sends the list the respective availability and details of the items is displayed as follows:
   a) If the item user entered matches the available item, then he gets status found.
   b) If the item does not match the database, then he gets not found and user has to remove the items.
   c) If any item is out of stock, then the user notifies the admin and gets a message saying, your request is forwarded and when available you will be informed! and then the item is removed.
Step-7: The created wish-list is sent. (If while sending the wish-list, any item has status not found or not available, then tell the user to first remove particular item and then send.)

Step-8: After sending the wish-list, (through SMS) the user gets the acknowledgement of the admin then Confirm item (Reduce from stock).

6.4.2 Interpret inputs for the system:

- Digits fast-track on android sdk.
- Google android development community and forum available on www.androiddevelopers.com
- Video tutorials on android on www.keepwid.com
6.5 SYSTEM DESIGN

A strategy is generally a principle program for fixing an issue, with particular parts including periods, jobs, approaches, practices and resources. Because the evaluation of the concepts of procedures, rules, and postulates used by a area it may be described additionally. A strategy could be viewed to incorporate several approaches, each as put on numerous aspects of the entire extent of the strategy. The research could be split between two sections; they are quantitative study and qualitative study.

6.5.1 Introduction:

To reduce the stress and time factor of the customers when they are shopping and more over, help them to do shopping within their budget.

Scope:

• Malls: This application will provide information to the customers visiting the mall regarding the items they wish to purchase in the form of a wish-list.

• Institutions: In the scenario of the institution the students can make use of this system to get information of marks, attendance, exam timetables, and so on.

• Organizations: For organizations, system will display all the work related information like salary, performance for employees.

System Features:

• Portable
• Android compatible
• User friendly wish-list
• Up-loader
• FAQs
• Branding and Promotion

Use classes and characteristics:

User Class, which could be any of the following:

   i) Customer
   ii) Students
   iii) Employee

Operating Environment:

   i) Desktop Computer: Any compatible operating system
ii) Mobile: Android O.S

Design and Implementation Constraints:
The scenario under consideration must comprise of the following infrastructure:
   i) Bluetooth/Wi-Fi
   ii) Central database
   iii) Android compatible mobile device

Assumptions and Dependencies:
Assumptions:
• User device is compatible with Android platform and Bluetooth/Wi-Fi enabled
• User must be familiar with the Android operating system
• Respective shops have their databases updated regularly
• Updating of the central database by the client users through an intermediate desktop application

System Features:
• Reliable: There is only one-to-one association between the server and the mobile user.
• User friendly
• Time saving
• Frequent user database updation

Functional Requirement:
1. Customer/ Shopper: Creates/ Manages his/ her wish-list using the shop-addict application which further sends the customized wish-list to the server managed by the administrator.
2. Administrator: Responsible for managing and processing the customers’ wish-list. The items which are not processed are notified to the customer.

External Interface Requirements:
User Interfaces
• GUI
• Desktop- Comprising of AWT and Swing
• Mobile- Comprising of widgets

Hardware Interfaces
Generic Algorithm with Mathematical Evaluation for
Quality Assurance of Real Time Applications

Wishlist-Era: Concept Mobile Shopping

- Bluetooth dongle
- Wi-Fi connectivity
- Customer end (Mobile phone)
- Operating System - Froyo 2.3.3 (Android)
- CPU Speed - 600 MHz (minimum)
- RAM - 512 MB
- Hard Disk - 2 GB (minimum)

Server end:
- Processor - Pentium III
- Speed - 1.1 GHz
- RAM - 256 MB (min)
- Hard Disk - 20 GB
- Key Board - Standard Windows Keyboard
- Mouse - Two Button Mouse
- Monitor - SVGA

Software Interfaces:
- Customers: Front End - Android IDE - Eclipse
- Administrator: Front End - Java
- IDE - Netbeans 7.1 Database - Serialized

Nonfunctional Requirements:
- Performance Requirements:
  - Bluetooth: Class A transmitters Increased Performance

Longer Range:
- Multiple devices querying at a time

Safety Requirements:
- Parallel database updation keeping in mind the database recovery aspect in case of database failure/corruption.
- Thus also eliminating the threat due to natural disasters.

Security Requirements:
- The scanned documents which are being sent should be from an authorized user only
• Administrator authenticating the user by sending a mail to the user.

6.5.2 Software Quality Attributes:

• Usability: The overall learning process of the application is simple, input given by the user is according to their need, and the output is also as per their requirement given, hence the overall experience of the application is good and it is usable.

• Readability: The system is developed taking into consideration the structure of general handsets, the form of representation is clear, consistency is maintained in programming style; all these factors make the application readable.

• Portability: The concept of serialization is used in this system which converts objects into byte code. This byte code is compatible with almost all hardware used.

• Correctness: The customer needs are specified and to fulfill it is the basic motto of the system which is done successfully here.

• Reliability: The application successfully fulfils the customers requested queries and exact information of the shops/maps is given. Hence it is reliable.

• Integrity: The customer directly deals with the server and no unauthorized person is allowed to deal with central information, hence integrity of the system is maintained.

• Efficiency: The overall time, storage and transmission is done with best possible utilization of the available resources, so system is efficient enough.

6.5.3 Other Requirements (If Applicable):
Database Requirements: SQLite/MySQL

Legal/Internalization Requirements:
Not applicable (Open Source softwares used)
6.5.4 System Analysis Model:

Systems evaluation could be the study of models of communicating organizations, including pc systems evaluation. This discipline is closely associated with needs evaluation or operations research. It's also "an specific formal question completed to assist somebody (referred to because the decision maker) determine a better strategy and create a better choice than he may otherwise have created.

6.5.4.1 Use case Diagrams:

Use Case:

![Use Case Diagram]

Figure 6.1: Use Case Diagram
6.5.4.2 Class Diagrams:

System Class Diagram:

![System Class Diagram](image)

Figure 6.2: System Class Diagram

6.5.4.3 State Transition Diagram

![State Transition Diagram](image)

Figure 6.3: State Transition Diagram
6.5.5 System Architecture and Business Logic

A program design or techniques structures is the conceptual design that identifies the behaviour, arrangement, and more perspectives of the program. An architecture explanation is a proper description and portrayal of a system, arranged in a manner that facilitates thinking about the arrangement of the program which constitutes system elements, the externally visible qualities of these elements, the associations (e.g. the behaviour) between them, and supplies a strategy from which items could be acquired, and methods created, that works together to execute the complete program. The language for design description is known as the structures description language.

6.5.5.1 System Architecture:

By example, system structures utilizes aspects of both equipment and applications and can be used to allow style of such a amalgamated system. A great design could be looked at as a 'partitioning plan,' or formula, which partitions most of the system's existing and expected requirements in to a practical set of precisely bounded subsystems with nothing remaining. That's, it's a dividing plan which will be thorough, comprehensive, and unique. To ensure that there's the absolute minimum of communications required among them a significant goal of the dividing is to order the components within the subwoofer methods. In both applications and equipment, a great subwoofer program is commonly observed to become a purposeful "item". Furthermore, a great structure offers a simple maps to the user's needs and the approval assessments of the user's needs. Preferably, a maps also exists from every least component to every necessity and check. Follows : a few kinds of methods architectures (underlain by the exact same basic concepts have been recognized as :

a) Hardware architecture  
b) Software architecture  
c) Enterprise architecture  
d) Collaborative systems architectures (such as the Internet, intelligent transportation systems, and joint air defense systems)  
e) Manufacturing systems architectures  
f) Strategic systems architecture
6.5.5.2 Business Logic:

Company reasoning, or domain name reasoning, is a non-technical term normally utilized to explain the practical calculations that manage information exchange between a interface and a database.

Company logic:

- models real life business objects (such as accounts, loan, itineraries, and inventories)
- prescribes how business objects interact with one another
- enforces the routes and the methods by which business objects are accessed and updated
Business logic comprises:

- business rules that express business policy (such as channels, location, logistics, prices, and products); and
- Workflows that are the ordered tasks of passing documents or data from one participant (a person or a software system) to another.

Figure 6.5: Business Logic
6.5.6 UML Diagram

Unified Modeling Language (UML) is a standardised general purpose modeling language in the area of object-oriented software engineering. The Specific Modeling Terminology contains some image notation techniques to generate visible versions of object-oriented software-intensive systems. The Single Modeling Language originated by Grady Booch, Ivar Jacobson and John Rumbaugh at Logical Software in the 1990s. It had been implemented by the Item Management Group (OMG) in 1997, and continues to be maintained by this business since. In for modeling software-intensive systems. common 2,000 the Unified Modeling Language was recognized from the Worldwide Organization for Standardization (ISO) as market. Specific Modeling Language is employed to visualize, establish, change, build and record the items of an object-oriented software-intensive system under improvement. The metamodeling architecture of Unified Modeling Language (UML) is described within the Meta-Object Facility (MOF).

6.5.6.1 Package Diagram

A bundle plans within the Single Modeling Language represents the dependencies between a model that is made up by the packages. Along with the typical UML Dependency connection, you will find two specific kinds of dependencies described between bundles:

- Bundle import
- Bundle merge

A package transfer is "a connection between an importing namespace and a bundle, showing that the importing namespace provides the titles of the people of the bundle to its namespace." By as a bundle import relationship default option, an unlabeled dependence between two bundles is construed. In this connection, components inside the goal bundle may be imported in supply bundle.

A bundle unify is "a directed relationship between two packages, that indicates that the contents of the two packages are to be combined. It is very similar to Generalization in the sense that the source element conceptually adds the characteristics of the target element to its own characteristics resulting in an element that combines the characteristics of both" In this connection, if a component exists within both source package as well as the goal package then a source element's description is going to be enlarged to incorporate the target element's description.
6.5.6.2 Sequence Diagram

A series diagram in a Single Modeling Language (UML) is really a sort of conversation diagram that exhibits how procedures work together as well as in what sequence. It's a concept of the Message Sequence Graph. Object interactions are shown by a sequence diagram organized in time sequence. It represents the groups and objects required in the situation and the series of messages traded between the objects required to handle the performance of the situation. Sequence diagrams commonly (but not consistently), are connected with use case realizations in the Reasonable View of the machine under development. Series images are occasionally called event images, event situations, and time images.
System Sequence Diagram

![System Sequence Diagram](image)

Figure 6.7: System Sequence Diagram

6.5.6.3 Deployment and Component diagram

A deployment plans within the Single Modeling Terminology versions the physical implementation of items on nodes. To explain a web site, for instance, a implementation plans might reveal what equipment components ("nodes") exist (e.g., a internet server, an application server, and a database server), what software components ("artifacts") operate on each node (e.g., web application, database), and how the distinct items are joined (e.g. JDBC, REMAINDER, RMI). The nodes seem as containers, and the items allocated to each node appear as rectangles inside the containers. Nodes might have subnodes, which seem as stacked containers. Just one node in a implementation plans may conceptually represent several bodily nodes, for example a bunch of database machines.

There are two kinds of Nodes:

- **Device Node**
- **Execution Environment Node**

System nodes are actually computing assets with running providers and storage to run applications, for example common pc or cell phones. EEN node is software computing source that operates inside an external node and which itself supplies something to run and sponsor additional executable software components.
Within the Single Modeling Terminology, a element diagram represents how components are born together to create bigger components and or software methods. They're utilized to exemplify the arrangement of randomly complicated methods. Parts are born together by utilizing an assembly connection to link the necessary interface of one element with the interface of yet another element. The service consumer is illustrated by this - service supplier association between your two parts.

Deployment Diagram:
Component Diagram:

Figure 6.9: Component Diagram

6.5.6.4 State Transition figure

A condition diagram is a kind of diagram found in computer technology and associated areas to explain the behaviour of methods. State diagrams demand that the machine explained is made up of a limited amount of says; while at additional occasions this is really a sensible abstraction, occasionally, this is really the situation. Several kinds of condition images exist, which have various semantics and vary somewhat.

Figure 6.10: State Transition Diagram
6.6 IMPLEMENTATION

In architectural and computer technology, an execution is a conclusion of the technical standards or formula like a course, software part, or additional computer program through implementation and encoding. Several implementations might exist for confirmed standards or regular. For instance, internet browsers contain implementations of Worldwide Web Consortium-recommended specifications, and computer software improvement resources contain implementations of programming languages. Program execution normally gains from large amounts of person participation and administration assistance. Consumer engagement in the operation and design of details methods has a few very good results. First, if customers are seriously involved with methods design, they go opportunities to determine the program according to their company demands and goals, and more opportunities to manage the end result. 2nd, they're more prone to respond favorably towards the change procedure. Experience and integrating user understanding results in better answers.

The connection between customers and information systems professionals has typically been a trouble region for information systems execution initiatives. Information techniques experts and users often have pursuits, various skills, and goals. This really is called the user-designer communications gap. These variations result in divergent organizational loyalties, strategies to issue fixing, and vocabularies. Instances of those variations or issues are under:

Person Issues:
- Will the machine provide the info I want for my work?
- How fast may I get the information?
- How effortlessly may I recover the information?
- How much office assistance may I have to input information in to the system?
- How may the procedure of the machine match my everyday company program?

Custom Worries:
- How much disk storage space will the master file consume?
- How many lines of program code will it take to perform this function?
- How can we cut down on CPU time when we run the system?
• What are the most efficient ways of storing this data?
• What database management system should we use?

6.6.1 GUI Screenshots

Client Side:
The following are the screenshots of the user interface. The user will be able to view the following forms once the application is installed.

6.6.1.1 Start up page:

![Figure 6.11: Login Page](image-url)
7.6.2 Testing

7.6.2.1 Manual Testing (Client):

Advertisement

The Advertisement Page is used to display offers.

![Advertisement](image1)

Figure 6.12: Advertisement

Sign in/Sign up Page:

![Sign in Page](image2)

Figure 6.13: Sign in Page
Sign up Page:
New user can register.

![Sign Up Page](image)

Figure 6.14: Sign Up Page

Main menu:
Displays various options users can perform

![Main menu](image)

Figure 6.15: Main menu
Browse:
User can browse through various categories.

![Browse](image)

**Figure 6.16: Browse**

Item List:
User can view various items in a particular category.

![Item List](image)

**Figure 6.17: Items**
Quantity:
User can enter no. of items he/she wants.

![Quantity](image)

**Figure 6.18: Quantity**

Search:
User can search his/her particular item.

![Search](image)

**Figure 6.19: Search**
Search result:

![Search result](image1)

Figure 6.20: Search result

Search2:

![Search2](image2)

Figure 6.21: Search2
Search2 Result:

![Mobile Wishlist Shopping Android screenshot](image)

Figure 6.22: Search2 result

Map Location:

![Map Location screenshot](image)

Figure 6.23: Map Location
6.6.2.2 Customer’s Wish-list:

![Customer’s Wish-list](image1)

Figure 6.24: Customer’s Wish-list

6.6.2.3 Admin side confirmation:

![Confirmation](image2)

Figure 6.25: Confirmation
6.6.2.4 Manual Testing (Server): Server Login Page

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Figure 6.26: Server Login Page

In society consumers desire changes daily and fulfilling consumers requirements is recognized as one of the more significant company actions. The project aims at minimizing the time required for shopping, as they say time is money thus saving both. Some features and benefits offered by this third model are:

- Covers multiple domains
- User friendly nature
- Wide range of search items like grocery, footwear, clothing etc.
- Requires less space storage.

These features are achieved by designing an optimized and efficient model of the proposed system thereby making use of existing resources. Through the function the depth style of interface, the detail design of software and database plan, the detail design of community methods and the detail design of customer support program are done.