CHAPTER – 7 LIBRARY HOUSE-KEEPING OPERATIONS: AN OVERVIEW

Housekeeping Chart
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CHAPTER 7: LIBRARY HOUSE-KEEPING OPERATIONS:
AN OVERVIEW

An attempt is made in this chapter to delineate the Objectives of three automated operations considered in this study, viz., acquisition, Circulation and serials control. Each operation involves a number of automated functions which are briefly described? These explanations convey the sign and meaning of finance the functions involved in each of these operations hold good for the remaining part of the thesis. These explanations

7.1 Acquisitions

Acquisitions are mainly repetitive work/routine because it is not unusual to find the same information being repeated at various stages right from selection to the procurement processes. Acquisitions involves a great deal of record keeping as wells the usual difficulties soft racking Orders and determining when claims should be produced Manual acquisitions systems are labor-and paper-intensive, and usually produce only limited amount of management information. Automated generate a wide variety of reports which help in taking appropriate decisions at various stages of acquisition operation.

'Acquisitions' encompasses all aspects of the Procurement of all types of library materials, whether by Purchase, gift or exchange, from the request stage through transfer of materials to cataloguing. Fiscal processes are also included within the scope of acquisitions1. Follow the common library However, this study will follow with common library practice of using the term’ Acquisitions' to collectively denote those tasks which support the procurement of Library materials which are published one nonrecurring basis, including books, technical Reports, government publications, and a/v materials. The procurement may be either through purchase or through gifts. The major objectives of automated acquisitions systems may be summarized as follows:
➢ To reduce labor-and paper-intensive work involved in manual acquisitions

➢ To maintain up-to-date information/record fall activities involved in Acquisitions.

➢ To have effective and efficient control over ordering, claiming and cancellation Functions

➢ To provide accurate and timely financial information

➢ To provide necessary management information reports, whenever they are required.

While difference in purchasing practices and procurement regularities may lead to local variations lead in acquisitions systems, certain basic characteristics and work steps are always similar in all the systems. Thus, this study concentrates more on these commonality found in Library evaluation guide. Vol 4. “Acquisitions”. Powell: James E Rush Associates. 1986.

Automated systems. Briefly about these considered in this study: The various following sections describe automated functions which are considered in this study:
7.1.1 Databases

Administration
- Various Reports
- New Additions, Catalogue (Main/Author/Title)
- Accession Register/Bibliography
- List of books by Author/Title/Publisher/Year
- Subject/Call Number (by any order)
- Books by Unique Titles, Frequently issued books
- Books by -Subject wise
- Frequently Accessed Books
- Books Issued/Returned/Reserved/Reminder
- Receipt for Fine Amount/Deposit/Loss of Book, etc
- List (User/Publisher/Supplier/Departments)
- No-Due certificates
- Stock verification Report
- Budget Details, Orders
- Journal List (Indian/Foreign/Payment/Gratis/Exchange)
- Journal Subscription /Order Report/Missing Issues

Although a database is not a function, the key to Successful operation of any computer-based acquisition system is the scope, and the quality of the database(s).

It is, however, difficult to say the number of databases required and their structures as they are dependent on many parameters like
programming language used, the overall design of the system, the goals envisaged by the system, etc. However, the following are some of the databases/files frequently identified in the literature as important ones in an acquisitions system:

- In-process/On-order file
- Invoice data file
- Financial data file
- Vendor file
- Document data file (Catalogue/holdings of the library)
- Library policy and decision file

Depending upon the context, the system should allow suitably authorized staff to interact with them. In the interest of efficiency, the system must provide a wide range of access points.
7.1.2 Order preparation

The library acquisitions process begins with the selection of materials by the Acquisitions staff or with the arrival of a request from the patrons. The libraries Catalogue and on-order files are first consulted to determine whether the item is on order or already in its collection. A thorough checking is, normally, done to avoid unwanted duplication. If the acquisitions system contains document Data file (bibliographic data file of library holdings), it is searched to determine whether given material is already owned. Otherwise, (ie. in case the system Does not have on-line catalogue) the manual catalogue is consulted manually. Further, on-order/in-process file will have to be checked to see whether the Item is already on order. If a record is already there either in the on-line catalogue or in the on-order file, assuming that an additional copy will be purchased, the System should support the creation o a new order record just by copying automatically the relevant field. By this, the operator’s efforts and time to create an order record are minimized.

Then, the system should extract necessary details from the operator to reflect the specific requirements of the new order.

However, for a completely new order (ie., when no matching records are either found in on-line catalogue or is on-order file), all the details are to be filled-in afresh. While specific details will Necessarily vary from one system to another, each order record typically Consists of some combination of the following fields: an Order control number; an order date; a purchase order Number; a requester name or code; a vendor name or code; An indication of the acquisition type (a new order, stand-ing order, prepaid order, and so on), price, a fun name or code to which the item is to be charged; and a status Code or other information required for the tracking of an item at various stages of acquisitions process.
A good acquisitions system supports various order types such as standing order, on-approval, Prepaid order, gifts and exchanges and so on. Depending upon the type of order, the system should accept the relevant details from the operator.

An efficient system handles the ordering of multiple copies and multiple volume documents by accepting minimum possible information and allowing for copying the Repetitive data from record to record. The system should be capable of good data validation and verifications. Through the use of built-in data checks the system should ensure the correctness of the data element identifiers, data element values, and data Interrelationships.

### 7.1.3 Order production

Once an order record has been generated, the system must be capable of transforming the input data into actual orders to be sent to the vendor or other Sources. In India, as the transmission of order via magnetic media or telecommunication lines is not yet in practice, the orders have to be printed by the system as per the specifications of the individual library.

### 7.1.4 Received Item Processing

Upon the arrival of the item in the library, the shipment must be unpacked, sorted, matched to the correct order(s) and checked in. Basically the received item processing in an automated system involves updating of order record to indicate the receipt of the item.
When an item is received, the systems’ operator retrieves the appropriate order record to verify the correctness and completeness of the order. Depending on the situation, the operator has to take further action(s).

He system should enable the operator to record a variety of received statuses to indicate the precise disposition of the items. For example, if an item is received damaged or defective, this fact needs to be recorded in the order record (or other appropriate Records) as "Damaged. Returned for replacement”, “Returned for credit" or some thing similar. The system should efficiently handle the partial receipt of an order, receipt of the item without invoice, receipt of the items through different order types, items received but not ordered, etc.

The system should enable verification of the correctness of bibliographic details of the items supplied and in case deficiencies are noticed take appropriate measures. Further, in case the bibliographic or other details are incomplete or incorrect, the system should allow for updating them at this stage.

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### 7.1.5 Received Invoice Processing

For the sake of simplicity of discussion, it is assumed that items and invoices are processed separately. However, a close interaction between the item receipt and invoice receipt is essential in the acquisitions system. If an item is received before its invoice, the receipt of the item is recorded into the system. Further, The non-receipt of the invoice is also recorded in the system so that the system can generate claims for the invoice. Similarly, if the invoice is received before its item, the receipt of the invoice and along with other details are entered into the system with an indication of the non-receipt of the item. In this case the system generates claims for the item. Further, the fund file has to be suitably updated automatically.

If the item and invoices are received together, after verifying their correctness the receipt of the both rerecorded. Suitable updating in order file, invoice file and fund file may be made at this stage.
7.1.6 Claims

Claims are an area where an automated system has been found very helpful. If an order is not received within the specified period, a claims notice has to be generated and sent to the vendor unless notification of delay has been received and noted in the system. A system should provide for both automatic claiming of ordered materials and operator initiated (forced) claims. In the former case the system triggers claims notice production automatically and in the latter case the claims are reviewed and released by the staff for printing. A good system arranges the items to be claimed in vendor order and prints all claims to a vendor on a single claim notice unless the library requires that they be printed on separate forms.

The claiming function should also incorporate the claiming of invoices and bindery orders. The system should have the capability of producing follow-up (subsequent) claims if no response is recorded by the system within a specified period. Although the acquisitions systems may support the issuance of any number of claims, generally, a maximum limit is fixed by the library as the probability of receiving the item after that limit is very low.

7.1.7 Cancellations

An automated system needs to have a function to support the cancellation of orders, and open-ended order plans, of claims and of payments. However, this function has to be carefully monitored by the system and should allow only authorized staff to carry out this function.

Though, the cancellation is usually an operator initiated function, the system can trigger the cancellation function automatically, if the responses to claim notices are not received within the maximum time limit specified by the library.
It is a matter of efficiency if an acquisitions system allows for the issuance of an order

Previously cancelled though this is a rare occurrence. Naturally this facility will reduce the time and effort needs to get the order out. Cancellation normally requires the production of appropriate notice to be sent to a vendor.

7.1.8 Search

Access to database is frequently cited as inessential requirement for an automated acquisitions system. In fact, one of the important advantages of an automated system is its capability to provide wide range of access points to search one or more data files in support of acquisitions. As the type and nature of search cannot be predetermined, there should be sufficient flexibility in this function. It is not uncommon to combine two or more terms during searching. This requires that the system should allow forth use of logical connectors between search terms. The most commonly used connectors are AND, OR and NOT. The relational connectives are also quite useful as search tools. The basic set of connectives include equal to (=), not equal to (# or <>), greater than (>), less than (<), greater than or equal to (>=), and less than or equal to (<=).

An efficient and flexible system provides Searching using truncated forms of search terms. Truncation not only permits the searcher to overcome the vagaries introduced by variations in spellings, but also those introduced by linguistic devices as well. A good system allows for three different types of truncation, viz., Prefix, Infix and Suffix, though the last one is the most common form.

The use of general qualifiers in a search also can be a very useful technique for increasing the specificity of the results of search. For example, the form of
publication (e.g., reports), the medium (e.g., printed or microform), and so on may be used to restrict the search to just those types of records that are of interest to the searcher. Another facility which is useful while searching is the establishment of "universe" within which a search will be performed. This filtering of data is highly useful if the database size is quite large.

7.1.9 Retrieval

The term 'retrieval’ in this study has been referred primarily to retrieving of records in response to a search query and their mode of display or downloading. The system should display a suitable message in the event of a null retrieval (i.e., no matching records are found in response to a search query). A good system may provide an option to display lexicographically adjacent search terms, in case of a null retrieval. Of course, the option to choose this facility may be given to the operator. In the interest of convenience and efficiency, the system should provide maximum control to the operator to indicate the display pattern. Further, the system should allow the display of full bibliographic details or brief details (in selected fields) depending upon the context. Features like bidirectional browsing, saving of search strategy, and specifying of output device will enhance the efficiency and effectiveness of the system.

7.1.10 Routing

This function intends to staff, researcher or other clientele for review prior to this function eliminates one processing and its attendant manual efforts. Send materials to faculty, specified categories of saving. The existence of more source of exception Routing information needs to be suitably maintained by the system. But it has to be always linked with the order record. On demand, routing of selected items should also be supported. All of this means that the
data contained in the acquisitions system must be specific enough to enable the system to determine what is to be done for each Item received.

7.1.11 Financial records/Audit trial

Automated systems are particularly valuable in fund accounting and audit trial. A good system maintains correct and current financial records and a good audit trial. Obviously, this function must be sufficiently flexible to operate with the library's policies and changing fiscal management requirements.

One of the main features in this function is that the system should allow maintaining funds under different Budget heads as required by the library from time to time. The maintenance will encompass creation modification and closing of funds by specifically authorized staff.

The appropriate fund should be encumbered immediately, as soon as the material is ordered. Once items are received and invoices are approved for payment, the funds must be disencumbered and correct expenditure is recorded. This needs to be automatically done once the price and other amounts (such as discount, postage, foreign exchange etc.) are recorded into the system and the payment signal is indicated to the system.

Other features related to accounting function include alerting depletion of accounts, calculation of foreign Currencies and handling of exception situations. Maintenance of a full audit trial particularly for financial transaction is essential. The audit trial details should be recorded in such a way that they should Identify the person effecting the transaction, as well as the date, time, nature of transaction carried out etc.
7.1.12 Payment

The purpose of this function is to assist the library staff in performing the work related to payment of invoices for library materials acquired via the different types of purchase schemes. The assistance includes maintenance of record of all invoices approved for payment, maintenance of records of payment (by payee), maintenance of cheque register (if the library staff is authorized to write cheques), maintenance of voucher register etc. Though very rarely seen in practice, the system may be made to write the cheques also. The most important thing is the maintenance of complete audit trial for all transactions done in this function.

7.1.13 Printing

This function is one of the most used functions in automated acquisitions system. The system should be capable of printing, preferably at the workstation, orders, routing slips, cancellation notices, claim notices, various management reports and so on as required by the library. It is better if the system uses pre-printed forms for printing.

7.1.14 Access control

Even though acquisitions is strictly a ‘staff-use’ system, it is important for any automated system to have access control facility to ensure data security. Normally access control is achieved by making the system workable at ‘operator level’ i.e., certain designated staff member(s) is/are given the authority to have the authority to access and/or modify the data. A system having a good access control facility may allow even the patron of the library to interact with it. However, he/she will be allowed only for simple search and retrieval from on-line catalogue or in process files. Another words,
the interaction with the files is strictly restricted to 'read-only' mode. On the other hand, a staff member may be allowed to perform more functions. Even among the staff, it is possible to have 'staff-level' to control the authorization to carry out various function provided by the system.

**7.1.15 Document Identification Number (DIN)**

In order to identify each individual item uniquely, DIN is assigned. Thus, each item will have a unique code which is used by the acquisitions system to identify the item. Whenever, any action through the DIN is to be performed, the DIN is entered into the system. An OCR (optically recognizable character) DIN enhances the entry speed and the accuracy considerably. Usually, the accession number is used as DIN. But, in an automated system, it is useful, if the structure of the DIN represents the details like material type, broad subject category, language etc.

**7.1.16 Patron Identification Number (PIN)**

Patrons, including pseudo patrons, should be identified to the computer system in the same way as bibliographic item. PIN does this work. PIN permits controlled access to acquisitions files and enables staff to record and verify requester. In addition to the unique identification number, the patron should be identifiable by name or other parameters.

**7.1.17 Overrides**

In acquisitions, the main use of override function is to counter the effects of
system's automatic routines involved in functions such as order alert, routing, claiming, financial limits and so on. Overrides should be carefully controlled and monitored to ensure their correct use. Examples of overrides are fund limits; price restrictions; expenditure limits; claim action date; System defaults and so on.

### 7.1.18 Defaults

Several default values or conditions are usually accommodated in automated systems. In acquisitions, these defaults can make the system faster and efficient to use. Examples of default values include default data file to access, default vendor, default claim/cancellation Cycle, default waiting period before automatic claim and so on.

### 7.1.19 Help

One of the essential requirements of an automated system is the capability for providing the user assistance to when ever he/she needs it. There are a variety of ways in which on-line help can be offered to the operator. Provision to set help level makes the system very convenient for both novice as well as experienced operators. Further, suitable prompts and informative messages make the use of the system easy and comfortable. When an error is made, the system should be able to identify it and display the error message and the corrective course of action to be taken. Even audible tones can be effectively used to indicate either the successful or unsuccessful operation. In a good system, the seeking of help does not hamper the work in progress. Further, it could be context sensitive (ie. depending upon the work in progress, the system displays help messages related to that work).

### 7.1.20 Reports
One of the advantages of automated systems is the relative ease with which reports can be generated. A good system should produce a wide variety of reports required for day-to-day as well as occasional work/decision making process. The system should provide statistical as well as management reports. Based on literature on automated acquisitions, one can say that a good system should provide activity reports (such as number of pre-order searches, number of order records created, number of binding orders created, number of fund records created, number of invoices processed, number of items received and such others), financial reports (such as accounts payable reports, cash flow analysis, commitment register), database statistics, vendor performance report similar other reports.

7.1.21 Report generator
Since no system designer can anticipate all of the possible reports that might be required in a given library over a course of time, it is essential that the Acquisitions system provide a flexible report generator that library staff can use to produce special reports. Such generator should have the facilities like specifying the format (column width, page length, foot notes, top margins, and so on), specifying the sort sequence, and allowing the use of mathematical as well as statistical Operations (sums mean maximum, minimum, standard deviation and so on). A report generator is highly helpful if it provides the facility to output the data in graphical format also.

7.1.22 Data entry and update

The principal mode of on-line and interactive. Most within the ordering and receiving functions. Data entry in acquisitions is of the data entry occurs once the initial creation of different databases is done, subsequent data entry and update will involve augmentation of these files. The updating means the addition, modification and deletion of data/record as the situation warrants. It is always essential for the system to validate the data entry wherever possible.
This validation may be done through range test, data existence test, data format test and so on.

7.1.23 Documentation

A good documentation helps in overall usage, maintenance and usefulness of a system. The documentation must be accurate, well-organized, well illustrated, easy to read to understand, and indexed for quick reference to information required by the user.

It is useful, if separate documentation is available for technicians and users the technical documentation may include technical aspects such as design specifications, hardware configuration, software descriptions, operating procedures and so on. On the other hand, a user documentation may include all operational aspects required for using the system. Further, there must be ample information about messages produced by the system and their meanings, error messages and the probable solutions to remove the error, informational messages and other Types of messages.

There can be no fail-safe system. However, sufficient care and planning insure against the loss of data from the system. Sufficient support from the system is required for taking up regular back-up of at least important data/index files.

Another aspect of a good system is its capability to recover after a system-breakdown. Designers should pay attention to this aspect to make the system reliable and effective.

7.1.24 Backup Recovery

There can be no fail-safe system. However, sufficient care and planning insure against the loss of data from the system. Sufficient support from the system is required for taking up regular back-up of at least important data/index files.
Another aspect of a good system is its capability to recover after a system-breakdown. Designers should pay attention to this aspect to make the system reliable and effective.

7.2 Serials Control

Serials management, an integral part of library operations, has become increasingly complex over the years. Serials management always has been an area that is labor intensive, requiring high degree of attention to accuracy and detail. The benefits of the application of automation in other areas of library operations is now well established; it is a natural progression for librarians and system designers now to seek to apply the power of the computer to control one of librarianship’s most troublesome processes.

As used in this study, the term 'Serials 'denotes those publications which are issued in successive parts on a recurring basis, usually, but not necessarily, at regularly scheduled intervals and usually having numerical or chronological designation. The term Serials control' refers to those tasks which support the procurement and management of serials collection in a library. The major objectives of automated serials control system may be summarized as follows:


- To record and maintain accurately and timely the Serials holdings data
- To have effective & efficient control over subscriptions claiming and cancellations activities
- To have a good control over binding & related activities
- To provide accurate and timely financial information
- To provide necessary management information reports, Whenever they are required
➢ To reduce labor- and time-consuming work involved in Manual serials
➢ Control systems

The following sections describe briefly the various functional requirements of an automated serials control system:
7.2.1 Check-in

On of the most important feature of a serials control system is its check-in capability. Because it is a highly repetitive operation, it must be fast and "friendly" to be useful to the library.

There are two basic methods by which the systems can be devised to check-in serials. They are by editing holdings statement and by prompting for expected issues. In the first method, the operator has to input the check-in data into the system every time. While this method is very flexible, it can be inconvenient and time consuming. In the second method, the system can predict the expected issue. If the predicted issue matches with the one in hand which is to be checked-in, with minimum number of keystrokes, the issue can be checked-in. This is, of course, a quick method. However, this method is possible only for those serials which have a predictable pattern of publication and the expected issue can be predicted based on some frequency cycle. Thus, the system must allow for manual input of issue data also for the journals for which prediction of next expected issued is not possible or is quite unreliable.

If the checked-in issue is not the one expected but is a later one, the system should automatically marks the gap. On the other hand, if the checked-in issue is not the expected one but an earlier one, the system should be able to find out whether the issue details correspond to missing (gap) or whether it is a duplicate issue. In either case, the system should be able to update suitable File/records with minimum operator intervention. A good system supports the check-in of multiple copies of an issue on a single check-in transaction even when these copies are accommodated in separate copy records. In the interests of efficiency, the system should also support check-in of special issues, combined issues, supplements, "come with" issues and so on.
It is helpful, if the system provides a link to the full bibliographic record since there will be occasions on which the checker must consult the bibliographic record to resolve some problems like variations in title or other bibliographic data elements.

7.2.2 Claims

The most frequently faced problem in serials management is the non-receipt of the journal issues in time. In manual system, it is difficult and time-consuming process to identify the non-receipt of journals for sending claim notices for them. With automation, identification and claiming for such issues become facile and accurate and takes much less staff times to accomplish the task.

The system should automatically identify the issues that should be claimed. Some claims may be automatic and may cause the system to trigger claim notice production without or with minimum staff intervention. Other claims will be semi-automatic in the sense that they require staff review prior to claim notice production. Certain situations demand for forced claim i.e., claiming for an Issue through operator initiation. The system should have all facility to handle all these three situations.

The system should be able to automatically identify and produce claim notices for relevant issues on

* Failure to receive a new order within a library Specified period.

* Failure to receive the next issue within the Expected time frame

* Receipt of an issue later than the expected issue

* Receipt of fewer numbers of copies in case the library’s subscribing for multiple copies

* For items that do not have predictable pattern of frequency or enumeration, claims have to
Be sent for those items for which there has been no check-in Activity within a library-specified period.
To be really useful, the system should generate follow-up claims. The criteria for generating such claims may be one suitable to the individual library's practice. Although the system may support issuance of any number of claims, generally a maximum limit is fixed since the probability of receiving the issue after that limit is low.

7.2.3 Binding

This function is particularly important in Serials control system. It is a common practice in libraries to bind the completed volumes for archival storage. An automated system should be able to indicate when an item is ready to be sent for binding. The system might support a variety of approaches for determining binding readiness, including:

* Upon full receipt of a specified number of issues
* Upon receipt of the final issue in a specified level of enumeration hierarchy
* At regular intervals specified by the library.

At any point of time, the system should be able to provide on demand the lists of serials that are candidates for binding.

Binding orders should be prepared by the system upon the instruction from authorized staff. The binding orders may contain relevant details like type of binding (material, color, method etc.), information to be recorded on bound material, type of lettering (type face, color etc.) the mode of inclusion of index/content pages and so on.

A good system provides the staff the capability of deferring bindery orders when circumstances dictate, and to indicate to the system a time in future when the binding order should be produced for review. The provision of facilities like cancellation of orders, production of claims notice for non-receipt of bound issues as well as non-receipt of invoices etc. will add to the
efficiency of the system. Upon receipt of the bound volumes, the system should allow to record the receipt and other details suitably.

### 7.2.4 Acquisitions

Acquisitions, in serial control system, refers primarily to the tasks involved in making new Subscriptions, re-subscription, renewal and cancellation of subscription. In order to handle the acquisitions work efficiently, the system should maintain an in-process file and a vendor File. The in-process file may contain the bibliographic and order data, as well as invoice data if required. In order to handle the acquisitions work efficiently, the system should maintain an in-process file and a vendor file. The in-process file may contain the bibliographic and order data, as well as invoice data if required. The system should be able to produce automatic subscription renewal alert. Acquisitions through gifts &exchanges should also be supported by the system. The system should provide support of production of orders, claims, cancellation notice and other communications required in this function.

### 7.2.5 Circulation

Circulation of loose issues of journals and bound volumes of the journals need to be supported by the serials control systems. All regular functions in a general circulation control systems may be included in this function also. This function helps particularly in recording details of the physical location of bound as well as current journals. This function may be of additional Advantage in libraries where the journals are transferred to an organization unit that will have custody of his serials. In order to keep the data current, any changes in the physical location need to be incorporated into the system's records immediately.
7.2.6 Shelving

This function helps particularly in recording details of the physical location of bound as well as Current journals. This function may be of additional advantage in libraries where the journals are transferred to an organization unit that will have custody of the serials. In order to keep the data current, any changes in the physical location need to be incorporated into the system's records immediately.

7.2.7 Search

The functional requirements in this function are similar to the requirements described under the same function of "Acquisitions".
7.2.8 Retrieval

The functional requirements in this function are similar to the requirements described under the same function of "Acquisitions".

7.2.9 Printing

This is one of the frequently used functions in Serial control system. The system should support for printing of Document Identification Numbers, routing slips, claims notices, bindery orders, subscription orders, renewal orders and soon.

7.2.10 Access control

This critical function helps to minimize the unauthorized use of the system. His function promotes data security also. Usually access control is achieved by making the system identify the ‘operator level’ (which indicates the level of authorization to access and/or modify the databases). A system having a good access control facility allow even a patron of the library to interact with it. However, the patron is allowed only for simple search and retrieval functions. On the other hand staff members may be allowed to perform more functions. Even among staff, it is possible to have ‘staff-level’ to control the authorization to carry out various functions provided by the system.

7.2.11 Document Identification Number (DIN)

The functional requirements similar to the requirements function of "Acquisitions". So, for details. In this function are described under the same please.
7.2.12 Overrides

The main use of override function is to counter the effects of systems automatic routines involved in functions such as automatic check-in, routing, claiming, etc. Overrides should be carefully controlled and monitored to ensure their correct use. This can be achieved by allowing the override function only to specific levels among staff.

7.2.13 financial records/Audit trials

Automated systems are particularly valuable in fund accounting and audit trial. A good system maintains correct and current financial records and a good audit trial records. Obviously, this function must be sufficiently flexible so as to operate with the library policies and changing fiscal management requirements. One of the main features in this function is that the System should allow maintaining funds under different budget heads as required by the library from time to time. The maintenance of funds encompass creation of funds, closing of funds or modification of funds by suitably auto on payment of new subscription and renewal of Subscriptions, the system should adjust the funds appropriately. The system should record the actual price paid, postage, foreign exchange, etc., as appropriate to each serialized persons.

Other features related to accounting function include alerting duplication of accounts, calculation of foreign currencies and Han Maintenance of a full audit trial particularly for financial transaction inessential. The audit trial details should be recorded in such a way that they should Identify the person effecting the transaction, the date, the time, nature of transaction carried out, etc. Ling of exceptional situations.

It is highly useful, if support in the work related also. The assistance from the record of all payments made cheque register (if the library write cheques),
voucher register, seen in the practice, the system cheques also. The system provides some to payment of subscriptions system include maintenance (by payee), maintenance of staff is authorized to etc.

It is highly useful, if support in the work related also. The assistance from the record of all payments made cheque register (if the library write cheques), voucher register, seen in the practice, the system cheques also. The system provides some to payment of subscriptions System include maintenance (by payee), maintenance of staff is authorized to etc. Though very rarely may be made to write the

7.2.14 Help

The functional requirements in this function are similar to the requirements described under the Sam function of "Acquisitions"

7.2.15 Reports

One of the advantages of automated systems is the relative ease with which reports can be generated. A good system should produce a variety of reports required for day-to-day as well as for occasional work/decision making process.

The system should provide both statistical as well as management reports. A good system is capable of producing daily activity reports (number issued checked-in, number of items

Claimed and so on), vendor performance reports, financial reports and so on.

7.2.16 Report Generator

The functional requirements similar to the requirements function of "Acquisitions”.

7.2.17 Data entry and update

The functional requirements similar to the requirements function of "Acquisitions".
7.2.18 Documentation
The functional requirements similar to the requirements function of "Acquisitions". So, for details. In this function are described under.

7.2.19 Back-up and recovery
The functional requirements in this function are similar to the requirements described under the same function of "Acquisitions."

7.3 Circulation Control
Circulation is a central and highly visible function of a typical library. Circulation, which is often Compared with inventory control, involves a great deal of record keeping and correspondingly, staff time. It is highly essential that the records have to be accurate and all information has to be updated immediately after each transaction. In other words, circulation controls is useful if it is in online real-time interactive mode.

Circulation, by definition, encompasses all aspects of patron loan processing and management including closed reserves, holds, material booking and in-library use of the collection. Automated support for circulation control vastly improves a library's ability to rapidly and accurately record the loan transactions, to monitor these transactions, to record return of lent items and to support other related circulation functions.

The objectives of an automated circulation control may be summarized as follows

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- To record timely and accurately the loan transaction Data
- To have efficient and effective control over dues, fines And records
➢ To accurately provide information about status of a book And/or library loan status of a borrower
➢ To provide necessary statistical and management reports.

The following sections briefly describe the functional requirements of an automated circulation system.

7.3.1 Charge/Issues

Charge/Issue is one of the fundamental functions in a circulation control system. For charging an item, the Patron Identification Number (PIN) and Documentation Identification Number (DIN) are identified to the system (through OCR or keying in the data or some other means) which are eventually validated by the system for their correctness. Only if both are through with the validation check does the system records the transaction and allows the patron to borrow the item. The validation should not only check whether the entered code (PIN or DIN) is correct but also see whether the total number of items borrowed is within the borrowing privilege of the patron.

In the interest of efficiency, the system should Support having different patron types with different borrowing periods. Further, it should allow different types of items to be loaned for different loan periods as prescribed by the library. A good system allows multiple books to be borrowed in a single transaction. This will, of course, save the time required for each transaction.
If needed, the system should print due date slip also. The due date calculation should be done by the system taking into account the general and special holidays as applicable to that library.

7.3.2 Discharge/Return

The discharge function basically involves receiving the item back into the library and updating the patron’s record to reflect the returning of the item and producing an acknowledgement for returning the item, if required. As in the case of holding, even in discharging the PIN and DIN are identified to the system. The system after suitable validation, updates the concerned records suitably.

7.3.3 Renewal

This function allows for the patron to extend the loan period. This function may be thoroughly controlled by the patron type, material type, the reservation status of the book, and other conditions as applicable to an individual library. As many as times, renewal has to be done with or without the presence of the patron and/or item, the control has to be exercised by the system automatically.

In case the item to be renewed has a hold (reservation) or recall outstanding, the renewal should be denied, of course depending on the library policy. Again, depending upon the library policy, successive renewals may be restricted.

7.3.4 Holds/Reservation

This function helps the operator to reserve a document which is on loan. It is the usual practice in libraries to maintain the holds queue on first-come first-serve basis. Even in this function, before actually recording the holds, the
system has to govern the hold placement by
Material type, patron type and other conditions as required by the library policy. Upon discharge of the item, the system should produce a notice to be sent to the patron at the head of the Queue. If the patron does not claim the item within a specified time, the system should automatically send the notice to the next patron in the queue. If the situation demands, the system should allow authorized persons to modify the holds queue and/or to cancel the holds to any patron. The system should be flexible enough to accommodate the handling of exceptional situation as and when it may arise.

7.3.5 Recall
It is not an unusual situation in libraries to recall the items borrowed by a patron. Even in this function, the system may allow recall to be governed by patron type and material type. Though, normally, an item is recalled if it is overdue and/or is reserved by some patron, there may be other conditions for recall such as item is required for some purpose in the library, the item has to be sent for binding and so on.

7.3.6 Overdue
An item is said to be overdue, if it is not returned to the library on or before date established at the time of charge or renewal or recall. The system should detect the overdue items and produce suitable overdue notices to the patron. When required, the system should able to provide listings of overdue items and patrons having overdue items.

7.3.7 Fines/Overdue Charges
In order to ensure the prompt returning of items, it is the usual practice in libraries to levy fines against a patron for failure to return items by the due date. Usually, the fine accrued will be calculated upon the discharge of an overdue item. While calculating fines, it is necessary for the system to
consider (as per the library policy) the type of item, the patron class, and other specifications as applicable to that particular library. Further, the system should take into account the holiday list during the calculation of fines. If the library policy allows, the system should allow for partial payment of fines also. An efficient system allows suitably authorized staff for waiving of the fines and levying of fines for document(s) mutilated by the patron.

7.3.8 Handling of Loss of documents
When library materials patron, the system should replace the item. If the item does not contain calculating the cost, the staff to enter an amount. Are declared lost by the able to calculate the bibliographic record for the the required information for system should allow library staff to enter an amount. Similarly, depending upon the policy of a library, the books may be treated as lost when the system accrue to the account of the patron an amount equal to the replacement value of the item lost (or not returned).

7.3.9 Circulation of reserve collection
The principal aspects of this function which distinguish it from ordinary circulation control are the shorter loan periods, the class of patron permitted to use materials on reserve, the handling of fines and other charges, and the handling of over dues. All of the functions available in ordinary circulation control must be available in reserve collection circulation also. This function may include the circulation of un-catalogued items also.

7.3.10 Special Materials handling
The principal aspects of this function which distinguish it from ordinary circulation control are the type of items to be circulated, shorter loan periods, the class of patrons permitted to use these materials, the handling of fines and other charges and also the handling of over dues. Special materials, here, include all non-conventional information sources such as microforms, A/V materials etc. All of the functions available in ordinary circulation control must be available in special collection circulation also.
7.3.11 Printing
Many of the functions require the support of printing at the work station. The system should, therefore, support printing of due date slips, receipt for discharge and fine, hold slips, overdue notices, reports and other communication letters required by the circulation staffroom time to time.

7.3.12 Document Identification Number
The functional requirements in this function are similar to the requirements described under the same Function of "Acquisitions". So, please see page no’s 64 for details.

7.3.13 Patron Identification Number
The functional requirements in this function are similar to the requirements described under the same Function of "Acquisitions". So, please see page no 64 for details.

7.3.14 Search
The functional requirements in this function are similar to the requirements described under the same function of "Acquisitions". So, please see page nos 59 & 60 for details.

7.3.15 Retrieval
The functional requirements in this function are similar to the requirements described under the same Function of "Acquisitions". So, please see page no’s 60 & 61 for details.

7.3.16 Access Control
Access control is a critical function in circulation control. This function prevents unauthorized access to. The system. Normally access control is achieved by allowing the user to interact with it only through a password.
Further, the system may be made to identify the ‘access level’ of the user. Depending upon this access level, the system allows for accessing files/records/fields. A system may allow even patrons of the library to interact with it. But, their (patrons’) access is restricted only to read-only access to those files required for answering usual enquiries. Even among staff, depending upon the ‘access level’ the system should allow them to carry out only those functions which are permitted to them.

7.3.17 Override

The main purpose of this function is to counter the effects of systems' automatic features and default limits on various transactions. Override should be carefully controlled to ensure its correct use. Examples of override include override on loan period, override on material-type restriction, override limit on number of items charged to a patron, override queue placement and soon.

7.3.18 Financial Records/Audit trial

A good system maintains correct and current financial records and good audit trial. The system should maintain record of fines due by a patron and by item (so that the patron can know how much has been charged for him/her for each item). The system should, at any point of time, provide information about fines levied, fines paid, amount levied for replacement of lost documents, amount paid for replacement of lost document, deposits levied (if any), and deposits refunded (if any). Maintenance of a full audit trial particularly for financial transactions essential. The audit trial Details should be recorded in such a way that they identify the person effecting the transaction, the date, the time, nature of transaction carried out, etc.