

---

## APPLICATION OF WINISIS FOR AUTOMATION OF CIRCULATION SYSTEM: A PRACTICAL APPROACH.

SACHIN G. MAHAJAN

Asstt. Prof. Librarian,  
Arts, Science & Commerce College, Chikhaldara, Dist. Amravati (MS)

---

### Abstract

*WINISIS is open source software introduced by UNESCO is practically applied for the Automation of Library Circulation Module. The author provides detailed procedure used for the databases designed for various menus and submenus of Circulation Module. Field Definition Table, Data Entry Style and Print Format of each database is provided. Also provides details about inter linking of databases and files. In short complete operations of automated circulation module are presented practically.*

---

### KEYWORDS:

WINISIS, Automation of Circulation Module, Field Definition Table, Data Entry Format, Print Format.

### INTRODUCTION:

Libraries are the heart of Education System and Learned Society. At present libraries are facing the problems of funds and manpower and besides have to walk with the present scenario of IT based library services. Because of information explosion, libraries have been growing in size as well as complexity in terms of library management and library services. With this, libraries also require flexibility in library software as per local needs and requirements. Accordingly, libraries require a high degree of efficiency, which can be possible by proper Library Automation.

Library Automation refers to the use of computers in the routine and important jobs and services of a library, such as budgeting, acquisition, cataloguing, circulation, serial control and computer based information services.

### AUTOMATION:

The word "Automation" is derived from the Greek word "Automose" meaning something which has the power of spontaneous motion of self movement.

Automation or Computerization means application of computer hardware and software in day-to-day and repetitive jobs, which helps to save laborious work, time and money. It also helps to speed up the operations and increase all-round productivity with quality and quantity.

---

---

**CIRCULATION CONTROL:**

Manual circulation system is typically a routine in nature with a high degree of labor involvement. Circulation staff is predominantly engaged in clerical functions like issuing and return of library materials, filing of book cards, generating overdue notices, calculating and collecting fines, placing reservations for library materials and maintaining statistical records of library materials circulated. In addition, circulation department has to handle the new borrower registration and maintain records of all existing borrowers. The routine character of all the above activities contributes to errors in filing and record keeping tasks and to the slowness of the procedure itself.

**FUNCTIONS OF CIRCULATION SYSTEM:**

Some of the tasks carried out by automated circulation system are Recording the issue and return of books, Identifying overdue items and generating reminder notices, Calculating fines to be paid on overdue items, Placing reservations on books that have been issued, Searching the borrower records to find information about a borrower and Searching the bibliographic records to find the circulation status of a given item. It also includes generation of management reports like; list of items not circulated over a specified period, list of titles or subjects in great demand, statistical analysis of materials by the type of material, class number or patron category.

**FILES MAINTAINED IN AUTOMATED CIRCULATION SYSTEM:**

The important files to be maintained by an automated circulation system are User file stores details of all eligible borrowers of library, Issue file stores details of books currently issued, Return file is essentially an archival file containing details of returned documents, Reservation file contains details of the documents and borrowers who have placed their claims for books and Book database is used to provide detailed bibliographic information about books.

**WINISIS:**

CDS/ISIS for Windows is an information retrieval package developed by UNESCO (the United Nations Educational, Scientific and Cultural Organization) which runs under Microsoft Windows. Version 1.4 was circulated on CD-ROM to distributors in March 2001 and is dated January 2001.

Technically speaking, the major differentiating feature of CDS/ISIS when compared with other database management systems is in its use of variable length text fields. Data in database management systems are entered into fields. In many database management packages such as dBase or Microsoft Access, the fields are of fixed length. With this, there are various differentiating features when compared with other database management systems.

**Features of WINISIS:**

CDS/ISIS is a generalized Information Storage Retrieval system. It is intended to be used for structured non-numerical databases containing mainly texts.

It is specialized in handling variable-length information.

It may manage stand-alone as well as local network database systems.

Unlike Dbase or MS-Access, CDS/ISIS is not a relational database system, although it provides some relational facilities.

CDS/ISIS may be expanded by advanced users (programmers) for adding new services and tools.

A wide variety of solutions for Internet publishing of data are already available. (UNESCO 2004)

**Practical approach to application of WINISIS for automation of Circulation System:**

In the present study a separate module with various submenus is developed for circulation

---

system. Module and submenus were designed in the form of databases and then the databases were systematically linked to each other to form a complete automated circulation system.

All the databases were designed using four main components of WINISIS i.e. Field Definition Table, Data Entry Worksheet, Print Format and Field Select Table.

1. Field Definition Table: It provides details about the various fields defined to create the databases.
2. Data Entry Worksheet: It shows the structure of data to be entered in the worksheet.
3. Print Format: It is also called as display format. It is used to display the contents of database in various formats.
4. Field Selection Table: It is used to define the searchable fields and to create the term dictionary of useful or retrievable keywords

### 1. Database for Access Page of the Circulation Module:

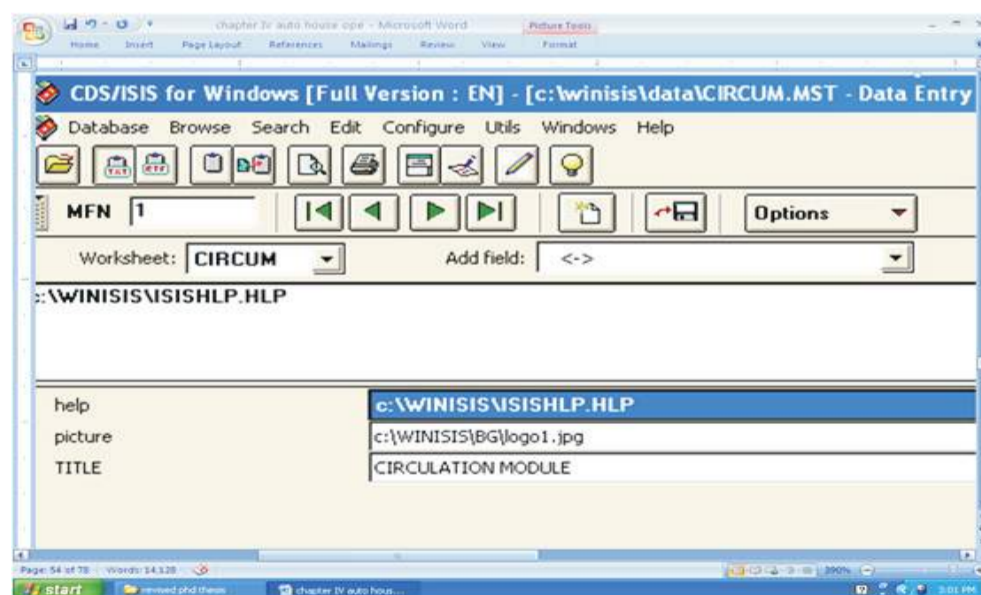
The access page of the module is designed with the database name "CIRCUM.MST" to provide user-friendly access to its various submenus like Book Database, User Database, Book Issue Database, Book Return Database, Record of Book Loss, Record of Books Write-off and Inter Library Loan as shown in the Database window No.1. The entire Circulation module is designed with seven databases having different objectives, features, utility and report capacity. It also provides access to Help Menu.

The detailed procedure for construction of databases i.e. creation of Field Definition Table, Style of Data Entry, Print Format for Database, its actual working and Utility with Report generation is as follows.

Field Definition Table No 1: For Circulation Module (Main Access Page)

| Sr. No. | Tag Number | Field Name | Field Type   | Repeatable or Not | Pattern/ Subfields |
|---------|------------|------------|--------------|-------------------|--------------------|
| 1       | 2          | Help       | Alphanumeric | -                 | ab                 |
| 2       | 5          | Picture    | Alphanumeric | -                 | abc                |
| 3       | 10         | Title      | Alphanumeric | -                 | abc                |

### Data Entry Window No.1: For Circulation Module. (Main Access Page)



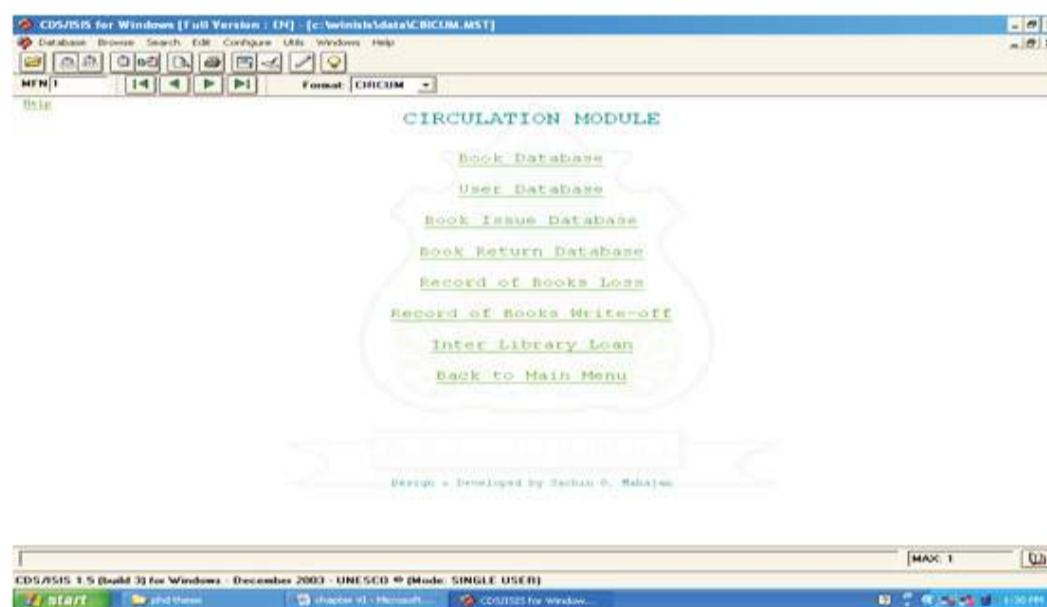
**Print Format No. 1: For Circulation Module. (Main Access Page)**

```

fs20,link(('Help'),'OPENFILE',v2)/
qc,cl6,fs40,{b,v10}/#
fs30,link(('Book Database'),'BROWSE book')/
bpict(('logo1.jpg'),4)/v5^a
link(('User Database'),'BROWSE userdb')/#
link(('Book Issue Database'),'BROWSE isubok')/#
link(('Book Return Database'),'BROWSE retbok')/#
link(('Record of Books Loss'),'BROWSE bkloss')/#
link(('Record of Books Write-off'),'BROWSE rgtoff')/#
link(('Inter Library Loan'),'BROWSE inlilo')/#
link(('Back to Main Menu'),'BROWSE main')/#####
fs20,'Design & Developed by Sachin G. Mahajan/'

```

The field definition table, data entry style and the print format given provides output in the form of Database Window No.1, which provides access to its sub modules as shown below.

**Out put in the form of Database Window No.1: Main Access Page For Circulation Module****1.1 Book Database:**

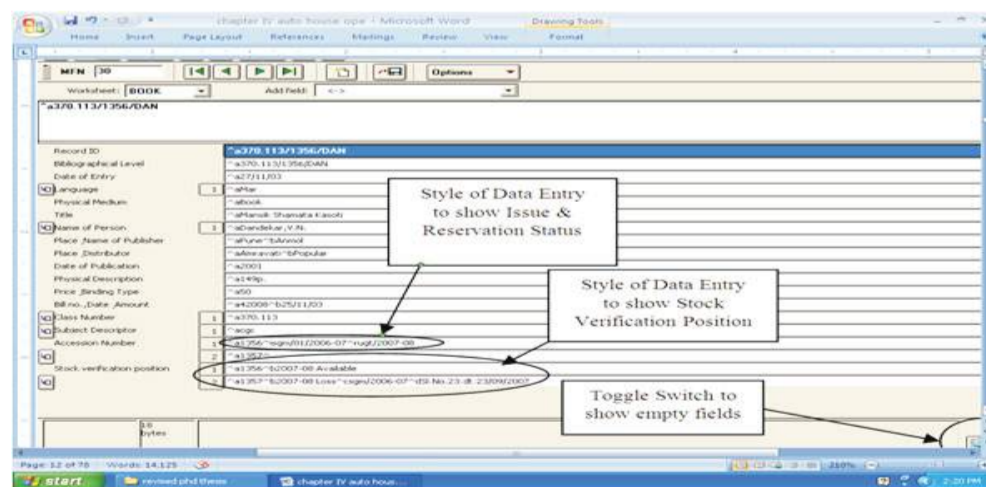
The database "BOOK.MST" is first sub module provides bibliographic details about the book, issue and reservation status of book in Circulation Module. It is designed with the various fields as shown in the Field Definition Table No. 1.1.

**Field Definition Table No 1.1: For Book Database.**

| Sr. No. | Tag Number | Field Name                  | Field Type   | Repeatable or Not | Pattern/ Subfields |
|---------|------------|-----------------------------|--------------|-------------------|--------------------|
| 1       | 1          | Record ID                   | Alphanumeric | -                 | a                  |
| 2       | 5          | Funding Agency              | Alphanumeric | -                 | abc                |
| 3       | 15         | Bibliographical level       | Alphanumeric | -                 | a                  |
| 4       | 20         | Location                    | Alphanumeric | -                 | a                  |
| 5       | 22         | Date of Entry               | Alphanumeric | -                 | abc                |
| 6       | 40         | Language                    | Alphanumeric | R                 | at                 |
| 7       | 50         | Physical Medium             | Alphanumeric | -                 | a                  |
| 8       | 60         | Type of Material            | Alphanumeric | -                 | a                  |
| 9       | 100        | ISBN                        | Alphanumeric | -                 | a                  |
| 10      | 120        | Document / Report No.       | Alphanumeric | -                 | a                  |
| 11      | 200        | Title                       | Alphanumeric | -                 | abl                |
| 12      | 210        | Parallel Title              | Alphanumeric | -                 | al                 |
| 13      | 230        | Other Title                 | Alphanumeric | -                 | a                  |
| 14      | 260        | Edition                     | Alphanumeric | -                 | al                 |
| 15      | 300        | Name of Person              | Alphanumeric | R                 | ab                 |
| 16      | 310        | Name of Corporate Body      | Alphanumeric | -                 | ab                 |
| 17      | 320        | Name of Meeting / Conf.     | Alphanumeric | -                 | ab                 |
| 18      | 400        | Place & Name of Publisher   | Alphanumeric | -                 | abcd               |
| 19      | 420        | Place & Distributor         | Alphanumeric | -                 | abcd               |
| 20      | 440        | Date of Publication         | Alphanumeric | -                 | a                  |
| 21      | 460        | Physical Description        | Alphanumeric | -                 | abc                |
| 22      | 465        | Price & Binding Type        | Alphanumeric | -                 | ab                 |
| 23      | 466        | Bill No. , Date & Amount    | Alphanumeric | -                 | abcde              |
| 24      | 480        | Series Statement            | Alphanumeric | -                 | abc                |
| 25      | 490        | Part Statement              | Alphanumeric | -                 | ab                 |
| 26      | 500        | Note                        | Alphanumeric | -                 | a                  |
| 27      | 510        | Bibliographic Note          | Alphanumeric | R                 | a                  |
| 28      | 530        | Contents Note               | Alphanumeric | R                 | a                  |
| 29      | 610        | Class Number                | Alphanumeric | R                 | a                  |
| 30      | 620        | Subject Descriptor          | Alphanumeric | R                 | a                  |
| 31      | 900        | Accession Number            | Alphanumeric | R                 | abc                |
| 32      | 901        | Blank                       | Alphanumeric | -                 |                    |
| 33      | 902        | Stock Verification Position | Alphanumeric | R                 | abcd               |

The Data Entry Window 1.1 and 1.1.1 shows the structure of data entry to be used.

#### Data Entry Window No. 1.1: For Book Database (BOOK.MST).



**Data Entry Window No.1.1.1: For Book Database (BOOK.MST).**

|                             |   |   |
|-----------------------------|---|---|
| Class Number                | 1 | ^a370.113   |
| Subject Descriptor          | 1 | ^aage   |
| Accession Number            | 1 | ^a1356^ism/01/2006-07^rug/2007-08                     |
|                             | 2 | ^a1357^   |
| Stock verification position | 1 | ^a1356^b2007-08 Available                             |
|                             | 2 | ^a1357^b2007-08 Loss^csgm/2006-07^dSl.No.23.dt.23/09/ |

18 bytes

CDS/ISIS 1.5 (build 3) for Windows - December 2003 - UNESCO © (Mode: SINGLE USER)

The data entry window no. 1.1 and 1.1.1 shows the data entry style to input the details of books issued and reserved for user. Close look on window shows that, the field “900-Accession Number” is provided with subfields “a, i and r” and kept repeatable to input the status of each copy of the book as shown in the data entry windows. The subfield “a” is used to input the accession number, “i” to input the user ID to whom the book is issued and “r” to input the user ID for whom the book is reserved. In this way the subfields help to keep the issue and reservation status of the books in this menu.

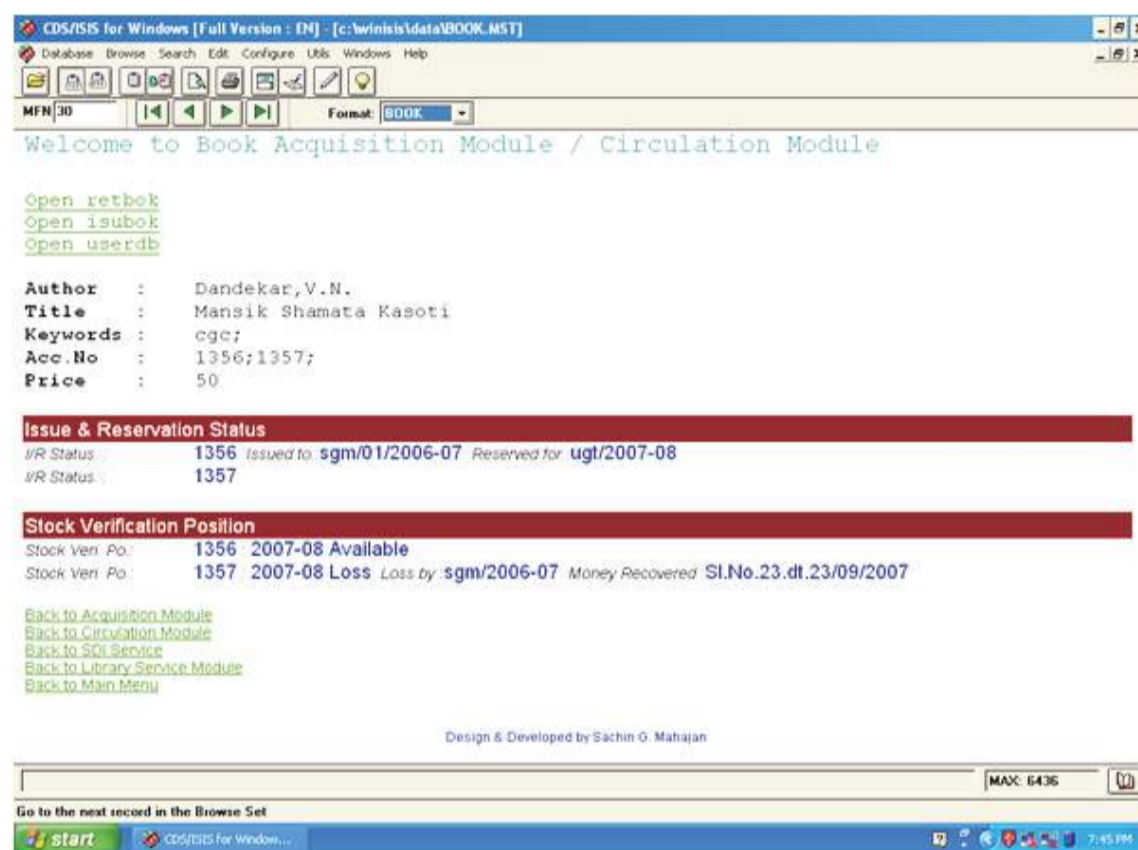
**Print Format No. 1.1: For Book Database (BOOK.MST).**

```

cl6,fs40,'Welcome to Book Acquisition Module / Circulation Module'/#
fs30,link(('Open retbok'),'BROWSE retbok')/
link(('Open isubok'),'BROWSE isubok')/
link(('Open userdb'),'BROWSE userdb')/#
fs30,cl0,{b,'Author      :'}c11v300^a/{b,'Title  :'}c11,v200^a,"",v260^a" ed."/ {b,'Keywords
:'}c11,(v620^a;)/
{b,'Acc.No  :'}c11(v900^a;)/{b,'Price  :'}c11,v465^a/#
(if p(v900^a) then {cl4,fs24,i,'I/R Status. :'}tab(2523),v900^a,if p(v900^i) then {cl4,fs24,i,' Issued
to.:'},v900^i,if p(v900^r) then {cl4,fs24,i,' Reserved for.:'},v900^r/fi/fi/fi)#
(if p(v902^a) then {cl4,fs24,i,'Stock Veri. Po.:'}tab(2523),v902^a,if p(v902^b) then {cl4,fs24,i,' :
'},v902^b,if p(v902^c) then {cl4,fs24,i,' Loss by :'},v902^c,if p(v902^d) then {cl4,fs24,i,' Money
Recovered :'},v902^d/fi/fi/fi/fi)#
link(('Back to Acquisition Module'),'BROWSE acqm')/
link(('Back to Circulation Module'),'BROWSE circum')/
link(('Back to SDI Service'),'BROWSE sdi')/
link(('Back to Library Service Module'),'BROWSE libser')/
link(('Back to Main Menu'),'BROWSE main')/##
qc,fs20,'Design & Developed by Sachin G. Mahajan'/

```

The print format helps to display the database window no. 1.1 and provides access to the various modules and submenus as shown in the database window. The “If and Then” logic shown in red color in the print format 1.1 and the style of data entry shown in the data entry window 1.1 and 1.1.1 helps to display the issue and reservation status of the book as shown in the database window no. 1.1.

**Database Window No.1.1: For Book Database (BOOK.MST).****Utility and Reports from the Book Database:**

- It works as a book database providing bibliographic details of books.
- It allows search for each record on each element entered in the data entry worksheet.
- It helps to avoid duplication of work or repetition in data entry.
- It allows sorting and printing of reports in various forms.
- It helps to provide statistical information about book collection.
- It provides field specific search, guided search and expert search with the use of Boolean Operators for the documents or books.
- It provides report about number of books of a particular author, of a particular subject, and of a particular title.
- It provides report of books in increasing or decreasing order of accession number and amount of books.
- It provides report of books in chronological sequence, books purchased in a year, and purchased form publisher / vendor.
- It provides report of books available language wise.
- It provides year wise report about stock verification position.
- It provides the status about Issue and Reservation of each copy of book.
- It provides information about the recovery of book in case of loss.
- It can provide printout of the catalogue cards as per AACR-I, AACR-II and MARC.

**1.2 User Database:**

This is the second important database in the Circulation Module designed to provide detailed information about the users of library. The database is designed with fourteen fields with two to four subfields and entitled "USERDB.MST".

**Field Definition Table No. 1.2 User Database.**

| Sr. No. | Tag Number | Field Name            | Field Type   | Repeatable or Not | Pattern/ Subfields |
|---------|------------|-----------------------|--------------|-------------------|--------------------|
| 1       | 10         | Name of user          | Alphanumeric | -                 | Abcd               |
| 2       | 20         | Residential Address   | Alphanumeric | -                 | Abcd               |
| 3       | 30         | Phone No.             | Alphanumeric | R                 | Abc                |
| 4       | 40         | E-mail ID             | Alphanumeric | R                 | Abc                |
| 5       | 50         | Gender                | Alphanumeric | -                 | Ab                 |
| 6       | 60         | Blood Group           | Alphanumeric | -                 | Abc                |
| 7       | 70         | Age & Dt. of Birth    | Alphanumeric | -                 | Abc                |
| 8       | 80         | Category of the user  | Alphanumeric | -                 | Abc                |
| 9       | 90         | Designation / Class   | Alphanumeric | -                 | Abc                |
| 10      | 100        | User ID               | Alphanumeric | -                 | Abc                |
| 11      | 110        | BT No. issued to user | Alphanumeric | R                 | Abc                |
| 12      | 120        | Subject interest      | Alphanumeric | R                 | Abcd               |
| 13      | 130        | Reservation of Books  | Alphanumeric | R                 | Abcd               |
| 14      | 140        | Photograph            | Alphanumeric | R                 | Ab                 |

**Data Entry Window No. 1.2: For User Database.**

The screenshot shows a data entry form in Microsoft Word. The form is titled 'USERDB' and contains the following fields and values:

| Field Name            | Value  |
|-----------------------|--|
| Name of user          | Fayade,U.G.  |
| Residential Address   | Arts, Science & commerce College, Chikhalidara   |
| Phone no.             | 9421787856   |
| E-mail ID             | Fayade_u@yahoo.com   |
| Gender                | M  |
| Blood Group           | A+   |
| Age Dt. of Birth      | 13/09/1972   |
| Category of the User  | Assistant professor  |
| Designation/Class     | English  |
| User ID               | UGT/ENG/2011-12  |
| BT no. issued to user | 1 UGT/01<br>2 UGT/02<br>3 UGT/03<br>4 UGT/04<br>5 UGT/05<br>6 UGT/06<br>7 UGT/07<br>8 UGT/08 |
| Subject interest      | 1 English  |
| Reservation of Books  |  |
| Photograph            | C:\userdb\staff\ugt.jpg  |

A callout box points to the Photograph field with the text "Address or path of photograph file".

The data entry structure is kept simple. The field "140-Photograph" in the field definition table no.1.2 is defined to store the file name of photograph and the path where the file is stored as shown in the data entry worksheet no.1.2. The data entry element shows address or path of the photograph i.e. "C:\userdb\staff\ugt.jpg". This photograph is accessible as and when required as shown in the database



window 1.2 and useful to check the user's validity.

### Print Format No. 1.2: For User Database.

```
cl6,fs40,'Welcome to Users Database' /#
fs30,cl0,'MFN: ',MFN(4)/MDL,
"      Name of user: "V10(0,23)/
"      Residential Address: "V20(0,23)/
("      Phone no.: "D30,V30(23,23)/)
("      E-mail ID: "D40,V40(23,23)/)
"      Gender: "V50(0,23)/
"      Blood Group: "V60(0,23)/
"      Age & Dt. of Birth: "V70(0,23)/
"      Category of the User: "V80(0,23)/
"      Designation/Class: "V90(0,23)/
"      User ID: "V100(0,23)/
("BT no. issued to user: "D110,V110(32,23)/)
("      Subject interest: "D120,V120(32,23)/)
("      Reservation of Books: "D130,V130(23,23)/)
link(('click for photo'),'OPENFILE',v140)/
link(('Open isubok'),'BROWSE isubok')/
link(('Open retbok'),'BROWSE retbok')/
link(('Open book'),'BROWSE book')/
link(('Back to Circulation Module'),'BROWSE circum')/
link(('Back to Main Menu'),'BROWSE main')/#
qc,fs20,'Design & Developed by Sachin G. Mahajan'
```

The print format 1.2 and the data elements shown in the data entry window 1.2 provide output in the form of database window 1.2. It provides details about the user and access to the submenus like issue book database, return book database and book database.

### Database Window No.1.2: For User Database. (USERDB.MST)



### Utility and Reports of the User Database:

It provides name, address, phone number, e-mail address, gender, blood group, age and date of birth of the user.

It also provides designation and category of the user.

It provides information about user ID and Borrower Ticket issued to the user.

It works as a user profile, which is useful to provide SDI service.  
It also provides photograph of the user to identify or verify the user.

### 1.3 Book Issue Database:

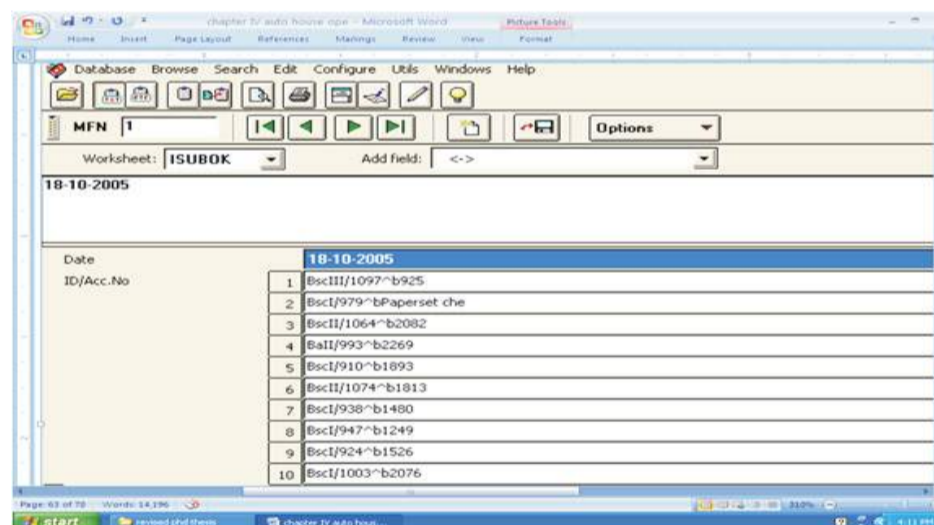
This is the third database designed as a submenu for the Circulation Module entitled "ISUBOK.MST". It is designed to keep the details about daily issued status of the books and to produce statistic at the circulation counter. It is simple database designed with only two fields as shown in the field definition table 1.3.

Field Definition Table No.1.3 for Book Issue Database.

| Sr. No. | Tag Number | Field Name         | Field Type   | Repeatable or Not | Pattern/ Subfields |
|---------|------------|--------------------|--------------|-------------------|--------------------|
| 1       | 1          | Date               | Alphanumeric | -                 | Abc                |
| 2       | 2          | ID / Accession No. | Alphanumeric | R                 | abc                |

The field "1-Date" is used to input the date of issue of books. The subfield "2-ID/Accession No.-a" is used to input the user ID and "2-ID/Accession No.-b" is used to input the accession number of the book issued to the user. As the field is kept repeatable, it allows inputting number of entries regarding issue of book in a particular day as given in the data entry window 1.3 and shown in the database window 1.3.

Data Entry Window No.1.3 for Book Issue Database.

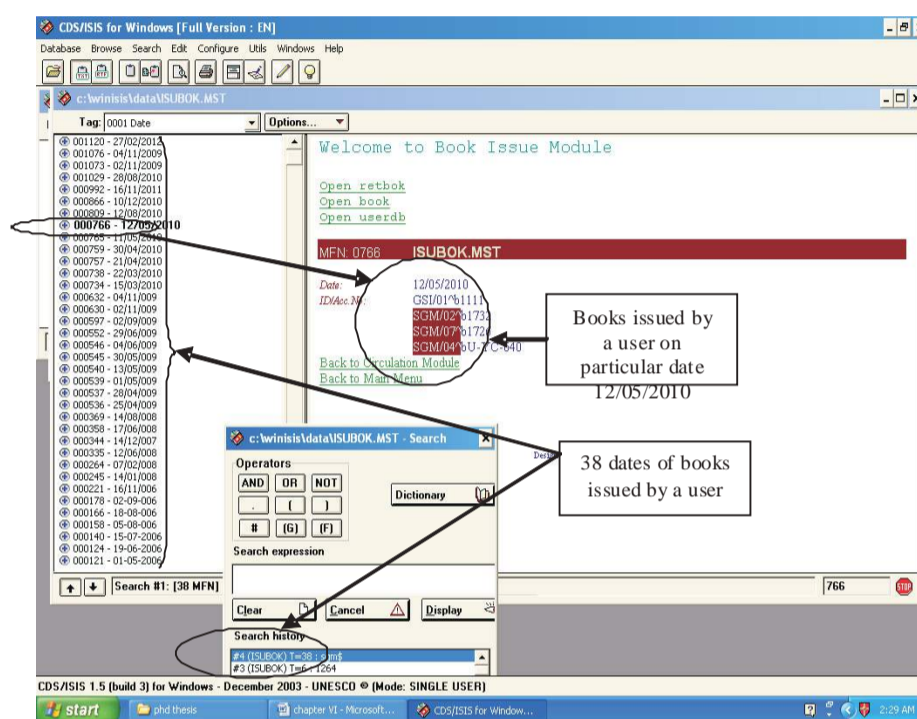


### Print Format No.1.3 for Book Issue Database.

```
c16,fs40,'Welcome to Book Issue Module' /#
fs30,link(('Open retbok'),'BROWSE retbok')/
link(('Open book'),'BROWSE book')/
link(('Open userdb'),'BROWSE userdb')/#
fonts((modern,Courier New),(roman,Times New Roman),(swiss,Arial)),
cols((0,0,0)),
c110,f1,box(1)'MFN: 'mf(4),tab(2159),{c18,fs32,b'ISUBOK.MST'}/#f2,c14,m(2159,-2159),c14,fs30,
if p(v1) then {c11,fs24,i,'Date: ',tab(2159),v1/fi/
```

```
(if p(v2) then if occ=1 then {c11,fs24,i,'ID/Acc.No:'}fi,tab(2159),v2/fi/),
link(('Back to Circulation Module'),'BROWSE circum')/
link(('Back to Main Menu'),'BROWSE main')/####
qc,fs20,'Design & Developed by Sachin G. Mahajan'/
```

### Database Window No.1.3 for Book Issue Database. (ISUBOK.MST)



The database window 1.3 shows that “on 12/05/2010 four books were issued”. The display shows the user ID in subfield “2-a” and book accession number in the subfield “2-b”.

The database window also shows the search conducted on user ID. With the help of expert search and guided search we can get report about how many books and on what dates are issued by a particular user. In the given search, one can get report about the related dates on which the particular user issued the books and the click option used for a date provides details about the books issued by the user on that date. In the same way search can be conducted on the “Accession Number”, which provides details about the particular book i.e. how many times, on which dates and by whom it is issued. The database also provides access to submenu of Circulation Module like Return Book Database, User Database and Book Database.

### Utility and Reports from Issue Database:

It helps to keep the detailed statistic about books issued and supports in circulation process carried out using book database.

It provides date wise status of the books issued.

It provides the frequency of issue of book.

It provides how many times a particular book is issued by a particular user from library.

It provides the number of books issued by a user in particular time.

It provides the number of books issued in a year, in a month, in a week and in a day.

It helps to derive the rate of average circulation.

It is helpful to identify the core period of circulation in a year.

It helps to trace the loss of books.

#### 1.4 Book Return Database:

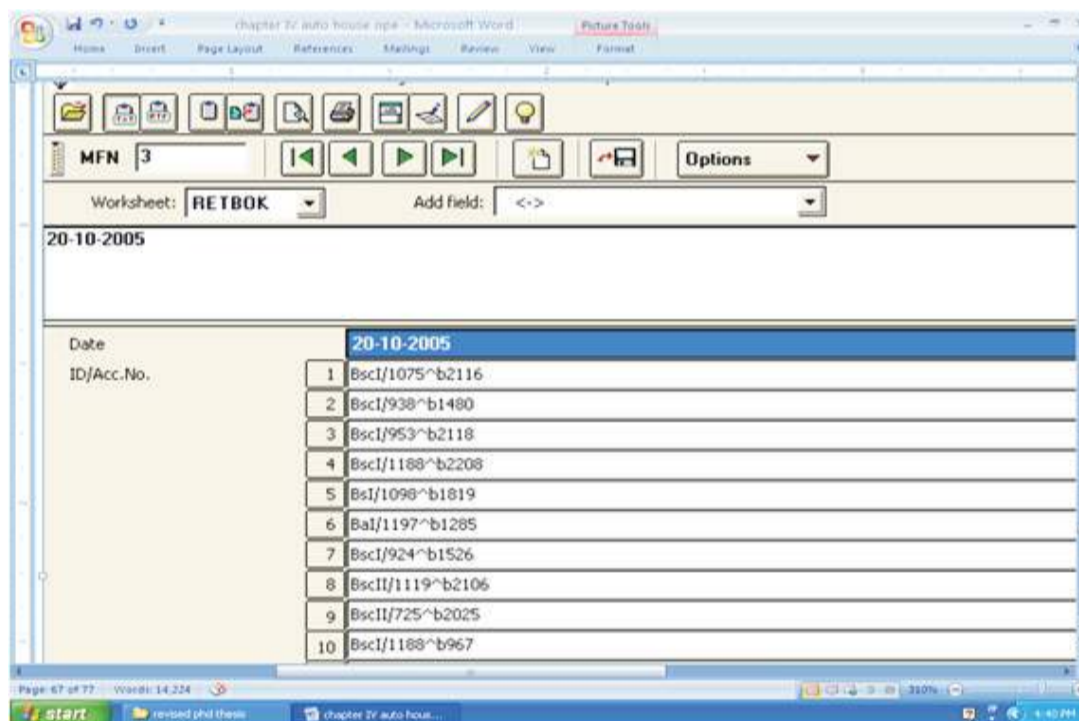
This is the fourth database designed as a submenu for Circulation Module entitled "RETBOOK.MST". It is similar to that of Book Issue Database in its features and structure. It is designed to keep the details about daily return status of the books and to produce statistics in the circulation counter.

#### Field Definition Table No.1.4 for Book Return Database.

| Sr. No. | Tag Number | Field Name         | Field Type   | Repeatable or Not | Pattern/Subfields |
|---------|------------|--------------------|--------------|-------------------|-------------------|
| 1       | 1          | Date               | Alphanumeric | -                 | Abc               |
| 2       | 2          | ID / Accession No. | Alphanumeric | R                 | abc               |

The field "1-Date" is used to input the date of return of books. The subfield "2-ID/Accession No.-a" is used to input the user ID and "2-ID/Accession No.-b" is used to input the accession number of the book return as shown in the data entry window 1.4. As the field is kept repeatable it allows inputting number of entries regarding return of book in a particular day as given in the data entry window 1.4 and shown in the database window 1.4.

#### Data Entry Window No.1.4 for Book Return Database.



#### Print Format No.1.4 for Book Return Database.

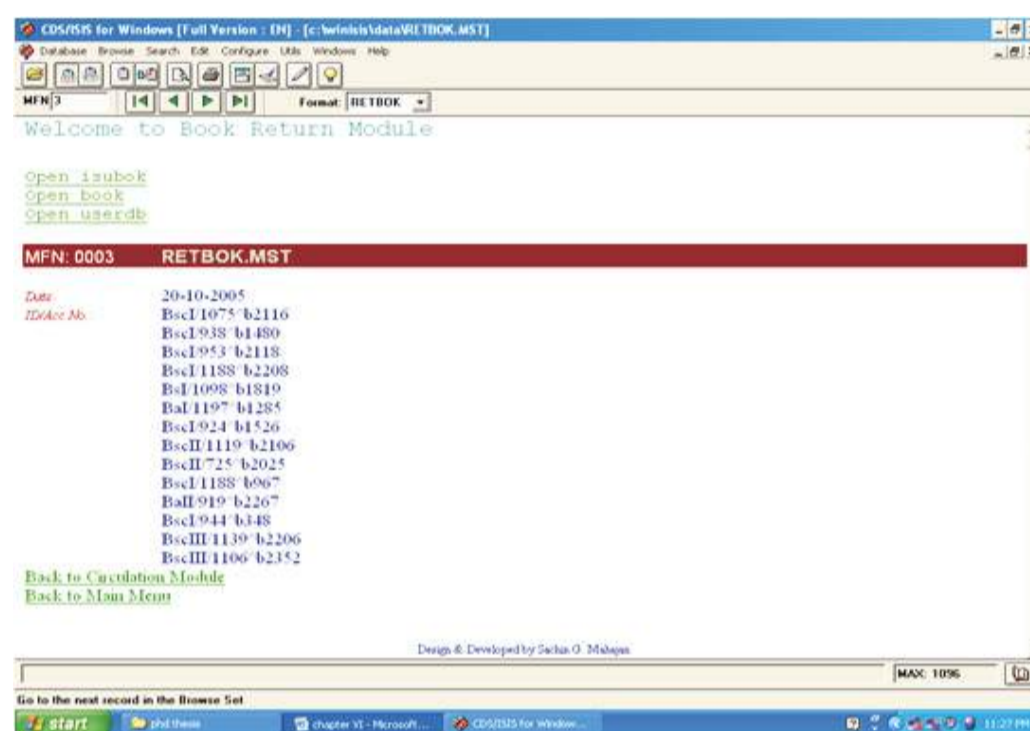
```
cl6,fs40,'Welcome to Book Return Module' /#
fs30,link(('Open isubok'),'BROWSE isubok')/
link(('Open book'),'BROWSE book')/
link(('Open userdb'),'BROWSE userdb')/#
fonts((modern,Courier New),(roman,Times New Roman),(swiss,Arial),
cols((0,0,0)),
```

```

c110,f1,box(1)'MFN: 'mf(4),tab(2286),{c18,fs32,b'RETBOK.MST'}/#f2,c14,m(2286,-
2286),c14,fs30,
if p(v1) then {c11,fs24,i,'Date: ',tab(2286),v1/fi/
(if p(v2) then if occ=1 then {c11,fs24,i,'ID/Acc.No.: '}/fi,tab(2286),v2/fi/),
link(('Back to Circulation Module'),'BROWSE circum')/
link(('Back to Main Menu'),'BROWSE main')/##
qc,fs20,'Design & Developed by Sachin G. Mahajan'/

```

#### Database Window No.1.4 for Book Return Database.



The database window 1.4 shows that “on 20-10-2005 fourteen books are returned”. The display shows the user ID in subfield “2-a” and book accession number in the subfield “2-b”.

In this sub module search can be carried out on user ID and Accession Number in the same way as shown in the Issue Book Database. The database also provides access to submenu of Circulation Module like Issue Book Database, User Database and Book Database.

#### Utility and Reports from Return Database:

It helps to keep the detailed statistic about books returned and supports in circulation process, carried out using book database.

It provides date wise status of the books return.

It provides the number of books returned in a year, in a month, in a week and in a day.

It helps to derive the rate of average circulation.

It is helpful to identify the core period of circulation in a year.

It helps to trace the loss of books.

#### 1.5 Record of Books Loss:

This is the fifth database designed as a submenu of Circulation Module entitled “BKLOSS.MST”. It is designed to keep the record of loss of books and to support the process of stock verification. It is also useful to keep entire statistic about the books lost. The database is designed with five fields having three to four subfields as shown in the Field Definition Table 1.5.

**Field Definition Table No. 1.5. For Record of Book Loss.**

| Sr. No. | Tag Number | Field Name                       | Field Type   | Repeatable or Not | Pattern/Subfields |
|---------|------------|----------------------------------|--------------|-------------------|-------------------|
| 1       | 10         | Date of Loss                     | Alphanumeric | -                 | Abcd              |
| 2       | 20         | Acc. No. of Lost Book            | Alphanumeric | -                 | abc               |
| 3       | 30         | Loss by (BT No. & User ID)       | Alphanumeric | -                 | Abcd              |
| 4       | 40         | Recovery Details (Sl. No. & Dt.) | Alphanumeric | -                 | abc               |
| 5       | 50         | Remark                           | Alphanumeric | R                 | abc               |

**Data Entry Worksheet No. 1.5. For Record of Book Loss.**

The screenshot shows the 'Data Entry' window for 'BKLOSS.MST'. The form contains the following data:

|                                 |                               |
|---------------------------------|-------------------------------|
| Date of Loss                    | 10/01/2008                    |
| Acc.No. of lost book            | 001                           |
| Loss by (BT No. & user ID)      | B.Sc.III/237/2008             |
| Recovery Details (sl.no.dt.rs.) | ASCC/304/11/01/2008 Rs. 200/- |
| Remark                          | 1                             |

The data entry worksheet is used to input the simple information regarding the loss of book i.e. date of loss, accession number of lost books, who lost it, recovery details and remark if any as shown in the data entry window no. 1.5.

Print Format No. 1.5. For Record of Book Loss.

```

cl6,fs40,'Welcome to Book Loss Menu'/#
fonts((modern,Courier New),(roman,Times New Roman),(swiss,Arial)),
cols((0,0,0)),
cl10,f1,box(1)'MFN: 'mfn(4),tab(3937),{cl8,fs32,b'BKLOSS.MST'}/#f2,c14,m(3937,-3937),c14,fs30,
if p(v10) then {cl1,fs24,i,'Date of Loss:'},tab(3937),v10/fi/
if p(v20) then {cl1,fs24,i,'Acc.No. of lost book:'},tab(3937),v20/fi/
if p(v30) then {cl1,fs24,i,'Loss by (BT No. & user ID):'},tab(3937),v30/fi/
if p(v40) then {cl1,fs24,i,'Recovery Details (sl.no.dt.rs.):'},tab(3937),v40/fi/
(if p(v50) then if occ=1 then {cl1,fs24,i,'Remark:'}fi,tab(3937),v50/fi),#
link(('Back to Circulation Module'),'BROWSE circum')/
link(('Back to Main Menu'),'BROWSE main')/####
qc,fs20,'Design & Developed by Sachin G. Mahajan/'

```



Database Window No. 1.5. For Record of Book Loss.(“BKLOSS.MST”)

The database window 1.5 displays the date wise details about book loss. It also provides access to Circulation Module.

#### Utility and Reports from Book Loss Database:

It is used to keep the statistics about the book loss.

It is used to calculate the year wise loss of books and the recovery details about the lost books.

It supports to the process of stock verification and the statistics gained from its submenu helps to improve the issue-return policy and security of the library.

#### 1.6 Record of Books Write-off:

This is the sixth submenu of the Circulation Module designed to keep information and statistics about the books write-off. It supports the process of stock verification. The database for the submenu is designed with six fields having three to four subfields as shown in the Field Definition Table no.1.6 and entitled “RGTOFF.MST”.

Field Definition Table No. 1.6 for Record of Books Write-off.

| Sr. No. | Tag Number | Field Name                   | Field Type   | Repeatable or Not | Pattern/ Subfields |
|---------|------------|------------------------------|--------------|-------------------|--------------------|
| 1       | 10         | Date of write-off            | Alphanumeric | -                 | Abc                |
| 2       | 20         | Acc. No. of write-off Book   | Alphanumeric | R                 | Abcd               |
| 3       | 30         | Reasons of write-off         | Alphanumeric | R                 | Abcd               |
| 4       | 40         | Remark of LMC                | Alphanumeric | R                 | Abcd               |
| 5       | 50         | Order of LMC & Date          | Alphanumeric | -                 | Abcd               |
| 6       | 60         | Action taken after write-off | Alphanumeric | R                 | abcd               |

In the data entry worksheet no.1.6, fields “20, 30, 40 and 60” are kept repeatable to input more than one accession number of books write-off, reasons of write-off, remarks of local management council and actions taken after write-off respectively as shown in the data entry window no.1.6.

| Date of right-off            | 31/04/2008                              |
|------------------------------|---|
| Acc. No. of right-off books  | 1 001                                   |
|                              | 2 002                                   |
|                              | 3 003                                   |
|                              | 4 105                                   |
|                              | 5 190                                   |
| Reasons of right-off         | 1 Due to loss of book : 001, 002, 190   |
|                              | 2 Not in condition of use : 003, 105    |
| Remark of LMC                | 1 Loss of book should be prevented      |
|                              | 2 Permission granted for right-off      |
| Order of LMC & Date          | ASCC/LMC/2008/03 Dt. 01/005/2008        |
| Action taken after right-off | 1 Due to Loss of Book : money recovered |
|                              | 2 Not in condition : given in scrap     |

#### Data Entry Worksheet No. 1.6 for Record of Books Write-off.

#### Print Format No. 1.6 For Record of Books Write-off.

```

cl6,fs40,'Welcome to Book Write-off Module' /#
font((modern,Courier New),(roman,Times New Roman),(swiss,Arial)),
cols((0,0,0)),
cl10,f1,box(1)'MFN: 'mfn(4),tab(3937),{cl8,fs32,b'RGTOFF.MST'}/#f2,cl4,m(3937,-3937),cl4,fs30,
if p(v10) then {cl1,fs24,i,'Date of right-off: '},tab(3937),v10/fi/
(if p(v20) then if occ=1 then {cl1,fs24,i,'Acc. No. of right-off books: '},fi,tab(3937),v20/fi/,
(if p(v30) then if occ=1 then {cl1,fs24,i,'Reasons of right-off: '},fi,tab(3937),v30/fi/,
(if p(v40) then if occ=1 then {cl1,fs24,i,'Remark of LMC: '},fi,tab(3937),v40/fi/,
if p(v50) then {cl1,fs24,i,'Order of LMC & Date: '},tab(3937),v50/fi/
(if p(v60) then if occ=1 then {cl1,fs24,i,'Action taken after right-off: '},fi,tab(3937),v60/fi/,#
link(('Back to Circulation Module'),'BROWSE circum')/
link(('Back to Main Menu'),'BROWSE main')/####
qc,fs20,'Design & Developed by Sachin G. Mahajan'/

```

```

Welcome to Book Write-off Module

MFN: 0001      RGTOFF.MST

Date of right-off      31/04/2008
Acc. No. of right-off books
001
002
003
105
190

Reasons of right-off
Due to loss of book : 001, 002, 190
Not in condition of use : 003, 105

Remark of LMC
Loss of book should be prevented
Permission granted for right-off

Order of LMC & Date
ASCC/LMC/2008/03 Dt. 01/005/2008

Action taken after right-off
Due to Loss of Book : money recovered
Not in condition : given in scrap

Back to Circulation Module
Back to Main Menu

Design & Developed by Sachin G. Mahajan

```



### Database Window No. 1.6 For Record of Books Write-off.

The database window no.1.6 shows the details about the books write-off on a particular day or date. It displays the date, accession numbers of books, reasons, remarks of LMC, order details of LMC and the action taken after write-off.

Utility and reports from the database designed for Book Write-off:

It helps to keep detailed information about the books write-off.

It supports the process of stock verification.

It provides date wise details about the books write-off and reasons behind the write-off.

It helps to keep the remarks of LMC for further necessary actions and actions taken after write-off.

The statistics gained from the menu helps to improve book selection policy.

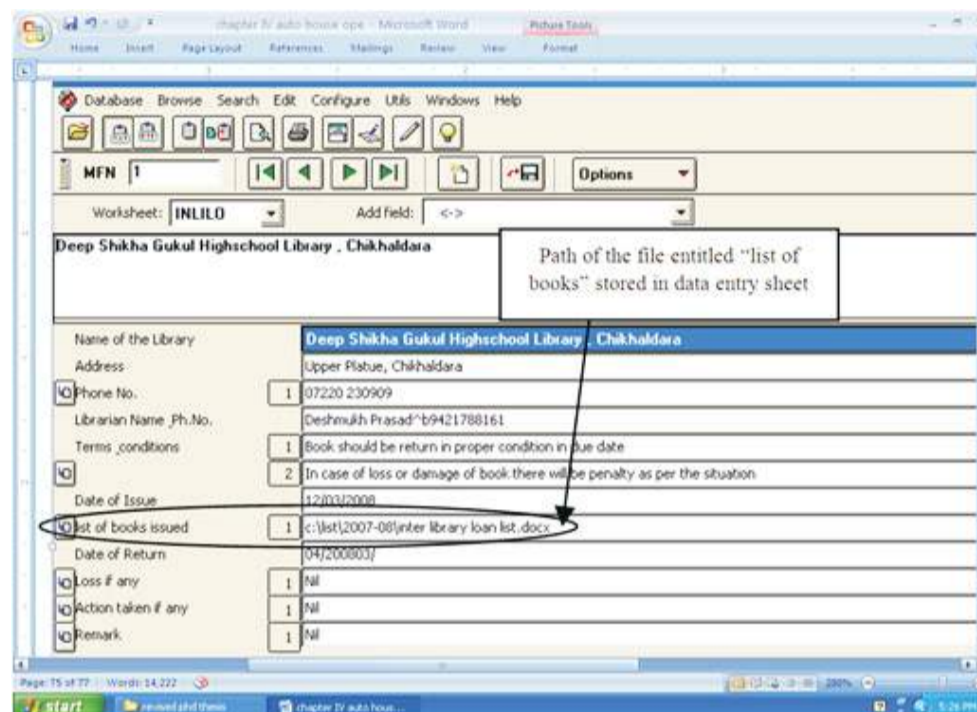
### 1.7 Inter Library Loan Menu:

This is the seventh submenu of the circulation module. The database is designed with eleven fields having three to four subfields as shown in the field definition table no.1.7 and entitled "INLILLO.MST". The database is designed to maintain the details about the books issued to other libraries on Inter Library Loan. It helps to store and recall all the details about books issued, date of issue & return, terms & conditions, details about loss if any, actions taken & remarks, and the complete address details of the library to which the books are issued. The field definition table no.1.7, data entry worksheet no.1.7, print format no.1.7 and the database window no.1.7 simplifies the structure of the database and helps to understand the utility.

### Field Definition Table No.1.7 For Inter Library Loan Menu.

| Sr. No. | Tag Number | Field Name                 | Field Type   | Repeatable or Not | Pattern/ Subfields |
|---------|------------|----------------------------|--------------|-------------------|--------------------|
| 1       | 10         | Name of the library        | Alphanumeric | -                 | Abcd               |
| 2       | 20         | Address                    | Alphanumeric | -                 | Abcd               |
| 3       | 30         | Phone No.                  | Alphanumeric | R                 | Abcd               |
| 4       | 40         | Librarian's Name & Ph. No. | Alphanumeric | -                 | Abc                |
| 5       | 50         | Terms & Conditions         | Alphanumeric | R                 | Abc                |
| 6       | 60         | Date of Issue              | Alphanumeric | -                 | Abc                |
| 7       | 70         | List of books issued       | Alphanumeric | R                 | Abc                |
| 8       | 80         | Date of Return             | Alphanumeric | -                 | Abc                |
| 9       | 100        | Loss if any                | Alphanumeric | R                 | Abc                |
| 10      | 110        | Action taken if any        | Alphanumeric | R                 | Abc                |
| 11      | 120        | Remark                     | Alphanumeric | R                 | Abc                |

In the above Field Definition Table field "70" is kept repeatable to provide access to more than one list of books. The field is used to store the MS Word File Name given to the book list and its path where it is stored as shown in the Data Entry Window no.1.7. Each list stored has separate and uniform number to identify it.



#### Data Entry Worksheet No. 1.7 For Inter Library Loan Menu.

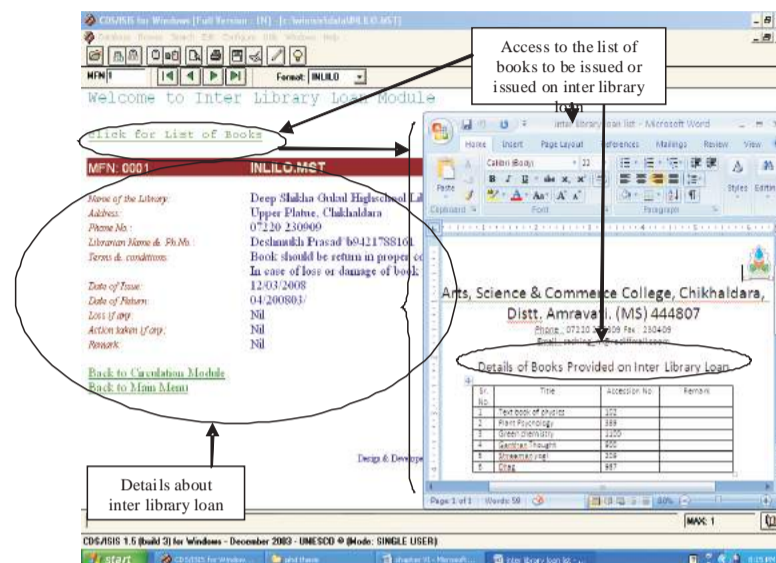
#### Print Format No. 1.7 For Inter Library Loan Menu.

```

cl6,fs40,'Welcome to Inter Library Loan Module'/#
fs30,link(('click for List of Books'),'OPENFILE',v70)/#
fonts((modern,Courier New),(roman,Times New Roman),(swiss,Arial)),
cols((0,0,0)),
cl10,f1,box(1)'MFN: 'mfn(4),tab(3937),{cl8,fs32,b'INLILO.MST'}/#f2,cl4,m(3937,-3937),cl4,fs30,
if p(v10) then {cl1,fs24,i,'Name of the Library: '},tab(3937),v10/fi/
if p(v20) then {cl1,fs24,i,'Address: '},tab(3937),v20/fi/
(if p(v30) then if occ=1 then {cl1,fs24,i,'Phone No.: '},fi,tab(3937),v30/fi/),
if p(v40) then {cl1,fs24,i,'Librarian Name & Ph.No.: '},tab(3937),v40/fi/
(if p(v50) then if occ=1 then {cl1,fs24,i,'Terms & conditions: '},fi,tab(3937),v50/fi/),
if p(v60) then {cl1,fs24,i,'Date of Issue: '},tab(3937),v60/fi/
if p(v80) then {cl1,fs24,i,'Date of Return: '},tab(3937),v80/fi/
(if p(v90) then if occ=1 then {cl1,fs24,i,'Conditions of books: '},fi,tab(3937),v90/fi/),
(if p(v100) then if occ=1 then {cl1,fs24,i,'Loss if any: '},fi,tab(3937),v100/fi/),
(if p(v110) then if occ=1 then {cl1,fs24,i,'Action taken if any: '},fi,tab(3937),v110/fi/),
(if p(v120) then if occ=1 then {cl1,fs24,i,'Remark: '},fi,tab(3937),v120/fi/),#
link(('Back to Circulation Module'),'BROWSE circum')/
link(('Back to Main Menu'),'BROWSE main')/####
qc,fs20,'Design & Developed by Sachin G. Mahajan'/

```

In the above print format, Link command with "OPENFILE" option is used to access the file stored in the field "70". Therefore, the Field Definition Table, Data Entry Style and the Print Format are kept correlated to each other in this menu.



Database Window No. 1.7 For Inter Library Loan Menu.

The Database Window no.1.7 provides access to the list of Books to be issue or issued on inter library loan. It provides details about the inter library loan as shown in the database window. The option “Click for List of Books” provides access to the MS word file stored in the location as given in the Data Entry Window no.1.7 and as shown in the Database Window no.1.7.

#### Utility and Reports from Inter Library Loan Menu:

It provides the details about the inter library loan i.e. to whom the books have been issued, the address of the library, terms & conditions of loan, action taken in case of loss of books and remarks.

It helps to maintain complete statistic about inter library loan.

The list of books is made available in MS Word and easy to edit and update at any time and all the benefits of Word can be utilized i.e. sorting, printing, merging, coping, editing etc.

The list may be prepared by typing or by direct scanning the hand written.

Such module helps and promotes resource sharing.

All the databases designed for Menus and sub-menus are presented and discussed with Field Definition Table, Data Entry Style, Print Format and Structure of Database Window.

The structure of Field Select Table for all the databases was kept same. The Expert Search & Guided Search options in WINISIS helps to generate the various reports requires for Management of Circulation System.

#### FINDINGS:

#### REFERENCES :

- 1.The New Encyclopedia Britannica 2010, *Encyclopedia Britannica Inc., London, 15th edn, vol.14, pp.548.*
- 2.The Encyclopedia Americana 1984, *Grolier Incorporated, USA, vol.2, pp.807.*
- 3.*Webster's New Dictionary & Thesaurus 1995, Webster's Publication Inc., London, pp.30.*
- 4.*McGraw Hill Encyclopedia of Science and Technology 2010, McGraw Hill Book Company, New York, 11th edn, vol. 2, pp. 444.*
- 5.*Encyclopedia of Library and Information Science 1975, Morcel Dekker Inc., New York, vol.14, pp.338.*
- 6.*Nair, RR 2003, Computer application to library and information services, McGraw Hill, Bombay, pp.149.*

- 
7. Ravichandra Rao IK and Sainual AP 1999, *Features of Library Automation Software A Comparative Study*, *Library Science with Slant to Documentation and Information Studies*, vol.36, no.4, pp.211-228.
  8. *Libsys Manuals of all the modules 2001*, Libsys Corporation, New Delhi.
  9. *SOUL Information Brochure 2010*, INFLIBNET, Ahmedabad, Accessed on 20th September 2010, <www.inflibnet.ac.in>.
  10. UNESCO 2004, CDS/ISIS for Windows reference Manual (Version 1.5) : (This manual refers to Winisis 1.5 build 3), Information Society Division Sector of Communication and Information, UNESCO, New Zealand.
  11. Mittal A and Agarwal D 2001, *Computerization of CBRI Library: A practical approach*, *Annals of Library & Information Studies*, vol.48, no.3, pp.111-116.
  12. Wilkinson, D., 2000, *Researcher's toolkit: the complete guide to practitioner research*, Florence, Rutledge.
  13. Parry, S., 1998, 'Disciplinary discourse in doctoral theses'. *Higher Education*, vol.36, no.3, pp.273-299.
  14. Kimber, R., 2001, 'Editorial: referencing style', *The Journal of Documentation*, vol.57, no.3, pp.329.