LIBRARY MANAGEMENT SYSTEM

*A major project report submitted to Jawaharlal Nehru Technological University, Kakinada in the partial fulfillment for the award of the Degree of*

# BACHELOR OF TECHNOLOGY IN

INFORMATION TECHNOLOGY

*Submitted By*

*M.Ajay kumar (21491A1289)*

*Under the Noble Guidance of:*



**DEPARTMENT OF INFORMATION TECHNOLOGY**

**QIS COLLEGE OF ENGINEERING & TECHNOLOGY (AUTONOMOUS)**

(Approved by AICTE | Permanent Affiliation: JNTU-Kakinada | UGC-Recognized) (Accredited by NBA | Accredited by NAAC | ISO 9001:2015 Certified)

### VENGAMUKKAPALEM, ONGOLE - 523272, A.P.

2023 - 2025

**QIS COLLEGE OF ENGINEERING & TECHNOLOGY**

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### VENGAMUKKALAPALEM, ONGOLE-523272, A.P



**DEPARTMENT OF**

**INFORMATION TECHNOLOGY BONAFIDE CERTIFICATE**

*This is to certify that the major project entitled “* **LIBRARY MANAGEMENT SYSTEM ”** *is a bonafide work of*

*M.Ajay Kumar (21491A1289)*

*in the partial fulfillment of the requirement for the award of the degree of Bachelor of Technology in INFORMATION TECHNOLOGY and* ***for*** *the academic year* ***2023-2025****. This work is done under my supervision and guidance.*

**Signature Of the Guide Signature Of the Head Of Department**

**Mr. Ajay Kumar Nerumati** **Dr. R.Saran Kumar** Ph.D.,

Professor & HOD, Dept of IT - QISCET

### Signature Of External Examiner

**ACKNOWLEDGMENT**

“Task successful” makes everyone happy. But the happiness will be gold without glitter if we didn’t state the persons who have supported us to make it a success.

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Finally, we would like to thank our Parents, Family and friends for their co-operation to complete this project.

#### MEMBER

M.Ajay kumar (21491A1289)

**DECLARATION**

We hereby declare that the project work entitled “**LIBRARY MANAGEMENT SYSTEM”** done under theguidance of **Mr**.**N.Ajay Kumar,** is being submitted to the “Department of Information Technology”, QIS College of Engineering & Technology, Ongole is of our own and has not been submitted to any other University or Educational institution for any degree.

## Member

M.Ajay kumar (21491A1289)

**LIBRARY MANAGEMENT SYSTEM**

**Table of Contents**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  | | | |  |
| **Serial No.** | **Topic Name** | **Content** | | | | **Page No.** |
| 1. | Introduction | 1.1 Setup checklist for mini project | | | | 2 |
|  |  | 1.2 Instructions | | | | 3 |
| 2. | Problem statement | 2.1 Objective | | | | 4 |
|  |  | 2.2 Abstract of the project | | | | 4 |
|  |  | 2.3 Functional components of the project | | | | 4 |
|  |  | 2.4 Technology used | | | | 5 |
| 3. | Implementation in  RDBMS LOT | | 3.1 Guidelines on the functionality to be built | | | 6 |
| 4. | Evaluation | | | 4.1Evaluation | 7 | |

1

**1.     Introduction**

This document outlines a mini project for the RDBMS LOT. The project is to design the database, reports the queries related to Library Management System. This document contains information about the attributed that will be participating in the system and guidelines about reports.

**1.1 Setup Checklist for Mini Project**

Minimum System Requirements

·        Physical Memory (RAM)                    - 1GB Minimum

·        Virtual Memory                                 - Double the amount of RAM

·        Disk space                                         - Total 5 GB

·        Processor                                          - 550 MHz minimum

·        Video Adapter                                   - 256 colors

2

**1.2 Instructions**

·        Follow standards while coding

·        Create a directory by your name in drive <drive>. In this directory, create a subdirectory MiniProject. Store your Project here.

·        You can refer to your course material.

·        The total time required to complete this mini project is 8 hrs.

·        Maintain the code.

**2.     Problem Statement**

**2.1  Objective**

Designing the database, developing the queries and basic reports required for Library Management System

**2.2  Abstract of the Project**

## A Library Management System is a software built to handle the primary housekeeping functions of a library. Libraries rely on library management systems to manage asset collections as well as relationships with their members.

## Library management systems help libraries keep track of the

## books and their checkouts, as well as members’ subscriptions and profiles. The system must be able to maintain database for entering new books and recording books that have been borrowed with their respective due dates.

**2.3 Functional components of the project**

Design the normalized relational database using the following details. You can make appropriate assumptions wherever required. Some of the attributes are given below with the restrictions on data it can contain. Find the required attributes for all the tables and create appropriate constraints on it. (For Ex. Primary key, Foreign key, etc.)

Some of the entities and attributes are as follows:

·        **Book\_Master**    - book id, book name, book\_author, book publication date, book type, book price, book description

·        **Book\_issue\_details** – issue\_id, book id, member id, issue\_date, issue\_renewal, issue\_expiry, issue\_description

·        **Librarian Master -**Librarian id, Librarian name, Librarian mobile,

Librarian email, librarian username, Librarian password,  librarian address

·        **Member Master** - member id, member name, member mobile, member email , member username, member password, member address

·        **Address Master** – address id, address description

This Mini project will be done individually. Implement the Software development life cycle for the project and develop code for the respective functionality.  The librarian must be able to put request of a specific book as Given by member

This project shall be done in 2 parts :

·        Librarian login and registration.

·        The librarian must be able to put request of a specific book as Given by member

Some of the guidelines/protocols are given below:- Normalize the tables.

·        Create additional tables, if necessary.

**Conceptual Model Design:**

A conceptual model is the model of an application that the designers want users to understand. By using the software and perhaps reading its documentation, users build a model in their minds of how it works. It is best if the model that users build in their minds is like the one the designers intended. That is more likely if you design a clear conceptual model beforehand.

Developing a conceptual model before designing a user interface is hard: it is tempting to jump right into discussing user interface concepts, such as control panels, menus, and data displays. The temptation is exacerbated by the tendency of sales and marketing people to state functional requirements in terms of window layout and mouse clicks. When marketing requirements are stated in UI terms, gracefully but firmly decline them, and demand requirements stated in terms of the task: the problems users face and the goals they wish to achieve.

Librarian Master

Book Issue Details

Member Master

Book Master

**Logical Model Design:**

Issue ID(PK)

Book ID(FK)

Member id (FK)

These are the most important characteristics of a logical data model:

* A logical data model can describe the data needs for each individual project. Yet, it is designed to seamlessly integrate with other logical data models should the project demand it to do so.
* A logical data model can be developed and designed independently from the database management system. The type of database management system does not affect it that much.
* Data attributes contain data types with exact length and precisions.
* In logical data modeling, no primary or secondary key is defined. At this level of data modeling, it is required to verify and tweak connector details that were set prior to defining relationships.
* A logical data model is like a graphical representation of the information requirements of a business area. It is not a database or database management system itself.
* A logical data model is independent of any physical data storage device, such as a file system.
* A logical data model must be designed to be independent of technology, so as not to be affected by the rapid changes in technology.

Librarian Name

Librarian Mobile

Librarian User

Librarian Passwr

Librarian Address

Librarian Id(pk)

Member Name

Member Mobil

Member User

Member Passw

Member addres

Member Id(pk)

mMMaster

Issue Date

Issue Renewal

Issue Expiry

Book name

Book author

Book published

Book price

Book desc

Book id (PK)

Librarian Master

Book Issue Details

Member Master

Book Master

**Physical Model Design:**

Issue\_id number(PK)

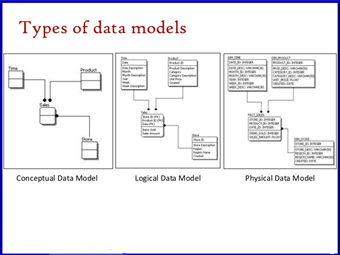
Book\_id number(FK)

Member\_id number (FK)

Issue\_Date date

Issue\_Renewal date

Issue\_Expiry date



Librarian Id(pk)

Librarian\_Name varchar

Librarian\_Mobile number

Librarian\_User varchar2

Librarian\_Passwr varchar2

Librarian\_Address varchar

Book Master

Member Master

Member\_Id number(pk)

mMMaster

Member\_Name varchar2

Member\_Mobil number

Member\_User varchar2

Member\_Passw varchar2

Book\_name varchar2(30)

Book\_author varchar2(30)

Book\_published date

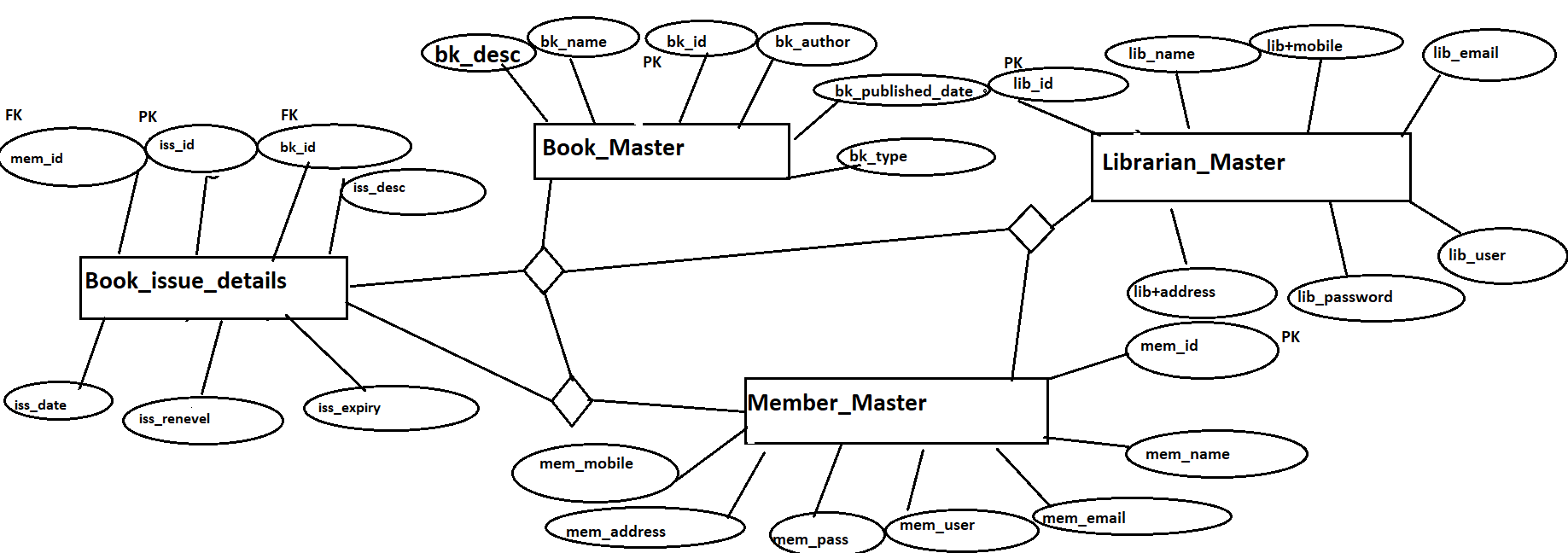
Book\_price number

Book\_desc varchar2(30)

Book\_id numer(PK)

Librarian Master

Book Issue Details

**ER-DIAGRAM: **

**CODE**

**CREATING A TABLES:**

**CREATING A BOOK MASTER TABLE:**

CREATE TABLE BOOK\_MASTER(

BK\_ID NUMBER PRIMARY KEY,

BK\_NNAME VARCHAR2(40) NOT NULL,

BK\_AUTHOR VARCHAR2(50) NOT NULL,

BK\_PUBLICATIONDATE DATE,

BK\_TYPE VARCHAR2(50) NOT NULL,

BK\_PRICE NUMBER NOT NULL,

BK\_DESC VARCHAR2(50));

SQL> desc book\_master;

Name Null? Type

----------------------------------------- -------- ----------------------------

BK\_ID NOT NULL NUMBER

BK\_NAME NOT NULL VARCHAR2(30)

BK\_AUTHOR NOT NULL VARCHAR2(30)

BK\_PUB\_DATE DATE

BK\_TYPE NOT NULL VARCHAR2(30)

BK\_PRICE NOT NULL NUMBER

BK\_DESC VARCHAR2(100)

**CREATING A LIBRARIAN MASTER TABLE:**

CREATE TABLE LIB\_MASTER(

LIB\_ID NUMBER PRIMARY KEY NOT NULL,

LIB\_NAME VARCHAR2(50) NOT NULL,

LIB\_MOBILR NUMBER NOT NULL,

LIB\_EMAIL VARCHAR2(50),

LIB\_USERNAME VARCHAR2(60) NOT NULL,

LIB\_PASSWORD VARCHAR2(50) NOT NULL,

LIB\_ADDRESS VARCHAR2(40));

SQL> DESC LIB\_MASTER;

Name Null? Type

----------------------------------------- -------- ----------------------------

LIB\_ID NOT NULL NUMBER

LIB\_NAME NOT NULL VARCHAR2(50)

LIB\_MOBILE NOT NULL NUMBER

LIB\_EMAIL VARCHAR2(60)

LIB\_USERNAME NOT NULL VARCHAR2(70)

LIB\_PASS NOT NULL VARCHAR2(70)

LIB\_ADDRS VARCHAR2(100)

**CREATING A MEMBER MASTER TABLE:**

CREATE TABLE MEM\_MASTER(

MEM\_ID NUMBER PRIMARY KEY NOT NULL,

MEM\_NAME VARCHAR2(40) NOT NULL,

MEM\_MOBILE NUMBER ,

MEM\_EMAIL VARCHAR2(50) NOT NULL,

MEM\_USER VARCHAR2(50) NOT NULL,

MEM\_PASS VARCHAR2(50) NOT NULL,

MEM\_ADDRESS VARCHAR2(100));

SQL> desc mem\_master;

Name Null? Type

----------------------------------------- -------- ---------------------------

MEM\_ID NOT NULL NUMBER

MEM\_NAME NOT NULL VARCHAR2(40)

MEM\_MOBILE NUMBER

MEM\_EMAIL NOT NULL VARCHAR2(40)

MEM\_USERNAME NOT NULL VARCHAR2(60)

MEM\_PASS NOT NULL VARCHAR2(60)

MEM\_ADRS VARCHAR2(100)

**CREATING A TABLE TO STORE BOOK ISSUE DETAILS:**

SQL> ED

Wrote file afiedt.buf

1 CREATE TABLE BK\_ISS\_DLS1(

2 ISS\_ID NUMBER PRIMARY KEY NOT NULL,

3 BK\_ID NUMBER NOT NULL ,

4 MEM\_ID NUMBER NOT NULL,

5 ISS\_DATE DATE NOT NULL,

6 ISS\_EXPIRY DATE NOT NULL,

7 ISS\_DESC VARCHAR2(50),

8 FOREIGN KEY(BK\_ID)REFERENCES BOOK\_MASTER(BK\_ID),

9\* FOREIGN KEY(MEM\_ID)REFERENCES MEM\_MASTER(MEM\_ID))

SQL> /

Table created.

SQL>

SQL> desc bk\_iss\_dls;

Name Null? Type

----------------------------------------- -------- ----------------------

ISS\_ID NOT NULL NUMBER

BK\_ID NOT NULL NUMBER

MEM\_ID NOT NULL NUMBER

ISS\_DATE NOT NULL DATE

ISS\_EXPR\_DTE NOT NULL DATE

ISS\_DESC VARCHAR2(100)

**INSERTING VALUES INTO TABLES:**

**1.BOOK\_MASTER:**

1)insert into book\_master values(01,'c','bala guru swamy','02-feb-89','reference',3000,'A Book Co

vers all basics of c and data structures of c');

2) insert into book\_master values(02,'python','james','09-jan-1878','subject',3000,'A Book Covers all about python’);

3)insert into book\_master values(4,'java','james gosling','23-mar-56','theory',3000,'A Book that describe all about java’);

4)insert into book\_master values(5,'Data Structures','ram','23-apr-98','theory',5000,'A Book that describe all about ds’);

5) insert into book\_master values(6,'Html','raju','21-may-86','reference',2000,'A Book THat Describe all about html’);

6) insert into book\_master values(7,'.Net','Ajay','21-jun-86','reference',2000,'A Book THat Describe all about .net’);

7) insert into book\_master values(8,'Artificial intiligence','ravi','21-aug-88','theory',3000,'A book that describe all about

Ai’)

8) insert into book\_master values(9,'Deep Learning','jhon','21-sep-78','theory',3000,'A Book that describe all about deep learning’);

9) insert into book\_master values(10,'Java Script','rames','21-oct-69','programming',2000,'A Book that describe all about

Java script’);

SQL> select \* from book\_master;

BK\_ID BK\_NAME BK\_AUTHOR BK\_PUB\_DA BK\_TYPE BK\_PRICE BK\_DESC

---------- ------------------------------ ------------------------------ --------- -----------------

1 c bala guru swamy 02-FEB-89 reference 3000 A Book Covers all basics of c and data stru

2 python james 09-JAN-78 subject 3000 A Book Covers all basics of python and data struc

3 c++ guru swamy 23-JUL-89 programming 4000 A Book That Describe All About The c c+ wit

4 java james gosling 23-MAR-56 theory 3000 A Book THat Describe All About Java

5 Data Structures ram 23-APR-98 theory 5000 A Book THat Describe All About Data Structur

6 Html raju 21-MAY-86 reference 2000 A Book THat Describe All About Html

7 .Net Ajay 21-JUN-86 reference 2000 A Book THat Describe All About .Net

8 Artificial intiligence ravi 21-AUG-88 theory 3000 A Book THat Describe All About Artifi

9 Deep Learning jhon 21-SEP-78 theory 3000 A Book THat Describe All About Deep Learning

10 Java Script rames 21-OCT-69 programming 2000 A Book THat Describe All About Java Scri

10 rows selected.

**INSERTING VALUES INTO MEM\_MASTER:**

1. insert into mem\_master values(01,'ajay',7013413075,'ajju1677143@gmail.com','ajju1234','ajay143','23-1182/3 vishnukundi nagar 2nd line 522647');
2. insert into mem\_master values(02,'khadar',7013413785,'khadar@gmail.com','khadar1234','kha143','23-1182/3 vishnukundi nagar 2nd line 522647');
3. insert into mem\_master values(03,'konda',7013413785,'konda@gmail.com','konda1234','kondi143','23-1182/3 vishnukundi nagar 2nd line 522647');
4. insert into mem\_master values(04,'vijay',7013413785,'vijay@gmail.com','vijay1234','vijju143','23-

1182/3 vishnukundi nagar 2nd line 522647');

1. insert into mem\_master values(05,'kumar',7013413785,'kumar@gmail.com','kumr1234','kumar143','23-1182/3 vishnukundi nagar 2nd line 522647');

SQL> select \* from mem\_master;

MEM\_ID MEM\_NAME MEM\_MOBILE MEM\_EMAIL MEM\_USERNAME

---------- ---------------------------------------- ---------- -------------------------------------

MEM\_PASS MEM\_ADRS

------------------------------------------------------------ ---------------------------------------

1 ajay 7013413075 ajju1677143@gmail.com ajju1234

ajay143 23-1182/3 vishnukundi nagar 2nd line 522647

2 khadar 7013413785 khadar@gmail.com khadar1234

kha143 23-1182/3 vishnukundi nagar 2nd line 522647

3 konda 7013413785 konda@gmail.com konda1234

kondi143 23-1182/3 vishnukundi nagar 2nd line 522647

4 vijay 7013413785 vijay@gmail.com vijay1234

vijju143 23-1182/3 vishnukundi nagar 2nd line 522647

5 kumar 7013413785 kumar@gmail.com kumr1234

kumar143 23-1182/3 vishnukundi nagar 2nd line 522647

6 pushpa 9874563214 pushpa@gmail.com pushpa123

sandi@143 23-1182/3 ongole

6 rows selected.

**INSERTING VALUES INTO LIB\_MASTER:**

1. insert into lib\_master values(05,'neelima',7013413785,'neelima@gmail.com','neelima','neelima','23-1182/3 vishnukundi nagar 522647');
2. insert into lib\_master values(102,'parvathi',7013413075,'para@gmail.com','parvathi','parvathi','34-1149/3 ongole');

insert into lib\_master values(103,'prasad',7013413075,'prasad@gmail.com','prasad','prasad',' 34-1149/3 ongole')

/

1. insert into lib\_master values(104,'kiran',7013413075,'kiran@gmail.com','kiran','kiran', '34-1149/3 ongole ');
2. insert into lib\_master values(105,'sreenadh',7013413075,'sreenadh@gmail.com','sreenadh','sreenadh','34-1149/3 ongole');

SQL> select \* from lib\_master;

LIB\_ID LIB\_NAME LIB\_MOBILE LIB\_EMAIL

---------- -------------------------------------------------- ---------- ---------------------------

LIB\_USERNAME LIB\_PASS

---------------------------------------------------------------------- -----------------------------

LIB\_ADDRS

----------------------------------------------------------------------------------------------------

101 neelima 7013413075 neeli@gmail.com

nelima123 qis@1234

34-1149/3 yarajarla ongole

102 parvathi 7013413075 para@gmail.com

alreddy123 qis@1234

34-1149/3 ongole

103 prasad 7013413075 prasad@gmail.com

uprasad123 passi@1234

34-1149/3 ongole

104 kiran 7013413075 kiran@gmail.com

kiran123 kiran@1234

34-1149/3 ongole

105 sreenadh 7013413075 sreenadh@gmail.com

sree123 qis@1234

34-1149/3 ongole

**INSERTING VALUES INTO BOOK ISSUE DETAILS:**

1. insert into bk\_iss\_dls values(2001,8,3, '12-may-23 ','20-may-23','given by neelima to konda at:3.00pm’);
2. insert into bk\_iss\_dls values(2002,5,4, '12-may-23 ','20-may-23','given by parvathi to vijay at:12.00 PM’);
3. Insert into bk\_iss\_dls values(2003,4,5, '12-may-23 ','20-may-23','given by prasad to kumar at:2.00pm’);
4. insert into bk\_iss\_dls values(2004,3,4, '12-may-23 ','25-may-23','given by kiran to vijay at:2.00pm ‘);
5. insert into bk\_iss\_dls values(2005,2,3, '12-may-23 ','25-may-23','given by sreenadh to konda at:2.00Pm’);

SQL> select \* from bk\_iss\_dls;

ISS\_ID BK\_ID MEM\_ID ISS\_DATE ISS\_EXPR\_ ISS\_DESC

---------- ---------- ---------- --------- --------- -----------------------------------------------

2013 5 2 13-MAY-23 30-MAY-23 given by neelima at 3.30pm

2001 8 3 12-MAY-23 20-MAY-23 given by neelima to konda at:3.00pm book:Artificial In

2002 5 4 12-MAY-23 20-MAY-23 given by parvathi to vijay at:12.00pm book:Data Struct

2003 4 5 12-MAY-23 20-MAY-23 given by prasad to kumar at:2.00pm book:java

2004 3 4 12-MAY-23 25-MAY-23 given by kiran to vijay at:2.00pm book:c++

2005 2 3 12-MAY-23 25-MAY-23 given by sreenadh to konda at:2.00pm book:python

2006 1 2 12-MAY-23 25-MAY-23 given by neelima to khadar at:1.00pm book:c

2007 7 2 12-MAY-23 27-MAY-23 given by parvathi to khadar at:1.00pm book:.net

2008 6 1 12-MAY-23 27-MAY-23 given by prasad to ajay at:3.00pm book:HTML

2009 9 3 12-MAY-23 30-MAY-23 given by kiran to at:3.00pm

2010 10 4 12-MAY-23 30-MAY-23 given by sreenadh at:3.00pm

2012 9 3 12-MAY-23 30-MAY-23 given by kiran to at:3.00pm

12 rows selected.

**CREATING A TRIGGER**:

CREATE TABLE LIB\_LOG(

WHO VARCHAR2(30),

ACTION VARCHAR2(40),

WHEN DATE);

SQL> DESC LIB\_LOG;

Name Null? Type

---------------------------------------------------------------------------------------------------

WHO VARCHAR2(15)

ACTION VARCHAR2(30)

WHEN

DATE

create or replace trigger lib\_head

before insert or update or delete on bk\_iss\_dls

declare

u\_action varchar2(30);

begin

if inserting then

u\_action := 'insert';

elsif updating then u\_action := 'update';

elsif deleting then u\_action := 'delete';

else

raise\_application\_error(-20001,'you should never ever get this error');

end if;

insert into lib\_log(who,action,when) values(user,u\_action,sysdate);

end;

**3.1 Guidelines on the functionality to be built :**

**Procedure-1**

**Q)**Write a procedure which will return the list of    books drawn in **a day**, it must show columns as    member\_id, member\_name, book\_id, book\_name

**CODE**:

**CREATE OR REPLACE PROCEDURE PROC\_1 (CURRDATE DATE)AS**

**CURSOR C1 IS select mem\_master.mem\_id,mem\_master.mem\_name,book\_master.bk\_id,book\_master.bk\_name from ((bk\_iss\_dls join book\_master on bk\_iss\_dls.bk\_id=book\_master.bk\_id) join mem\_master on bk\_iss\_dls.mem\_id=mem\_master.mem\_id) where bk\_iss\_dls.iss\_date=TRUNC(CURRDATE);**

**V\_REC C1%ROWTYPE;**

**BEGIN**

**OPEN C1;**

**LOOP**

**FETCH C1 INTO V\_REC;**

**EXIT WHEN C1%NOTFOUND;**

**DBMS\_OUTPUT.PUT\_LINE(V\_REC.MEM\_ID||' '||V\_REC.MEM\_NAME||' '||V\_REC.BK\_ID||' '||V\_REC.BK\_NAME);**

**END LOOP;**

**CLOSE C1;**

**EXCEPTION**

**WHEN NO\_DATA\_FOUND THEN**

**DBMS\_OUTPUT.PUT\_LINE('NO DATA FOUND');**

**WHEN OTHERS THEN**

**DBMS\_OUTPUT.PUT\_LINE('NO BOOKS ARE ISSUED AT TODAY');**

**END;**

/

**END;**

**/**

**OUTPUT:**

SQL> EXEC PROC\_1(SYSDATE);

5 kumar 9 Deep Learning

3 konda 8 Artificial intiligence

2 khadar 7 .Net

1 ajay 4 java

1 ajay 3 c++

5 kumar 3 c++

PL/SQL procedure successfully completed**.**

**Procedure -2:**

**Q)**Write a procedure which will return the list of   members whose books return date is expired, it must show columns as  member\_id, member\_name, book\_id, book\_name.

**CODE:**

**CREATE OR REPLACE PROCEDURE PROC\_2 (EXPRDATE DATE)AS**

**CURSOR C1 IS select mem\_master.mem\_id,mem\_master.mem\_name,book\_master.bk\_id,book\_master.bk\_name from ((bk\_iss\_dls join book\_master on bk\_iss\_dls.bk\_id=book\_master.bk\_id) join mem\_master on bk\_iss\_dls.mem\_id=mem\_master.mem\_id) where bk\_iss\_dls. ISS\_EXPR\_DTE =TRUNC(EXPRDATE);**

**V\_REC C1%ROWTYPE;**

**BEGIN**

**OPEN C1;**

**LOOP**

**FETCH C1 INTO V\_REC;**

**EXIT WHEN C1%NOTFOUND;**

**DBMS\_OUTPUT.PUT\_LINE(V\_REC.MEM\_ID||' '||V\_REC.MEM\_NAME||' '||V\_REC.BK\_ID||' '||V\_REC.BK\_NAME);**

**END LOOP;**

**CLOSE C1;**

**END;**

**/**

**OUTPUT:**

SQL> EXEC PROC\_2(’03-JUN-23’);

4 vijay 9 Deep Learning

PL/SQL procedure successfully completed.

**Procedure -3:**

Q)Write a procedure which will do transaction processing when a book is issued to a member details must be stores in the respective tables .

**CODE:**

CREATE SEQUENCE SEQ\_ISSID

START WITH 2025

INCREMENT BY 1

MINVALUE 0

MAXVALUE 100000**;**

**Sequence created.**

**SQL> ED**

**Wrote file afiedt.buf**

**CREATE OR REPLACE PROCEDURE PROC\_3 (**

**BOOKID NUMBER ,MEMID NUMBER,**

**ISSDATE DATE, EXPRDATE DATE,**

**ISSDESC VARCHAR2) IS**

**BEGIN**

**INSERT INTO BK\_ISS\_DLS VALUES(SEQ\_ISSID.NEXTVAL,BOOKID,MEMID,ISSDATE,EXPRDATE,ISSDESC);**

**END;**

**/**

**Procedure created.**

SQL> EXEC PROC\_3(9,3,SYSDATE,'05-JUN-23','GIVEN BY PARVATHI AT 3.00PM');

PL/SQL procedure successfully completed.SQL> select \* from lib\_log;

SQL> SELECT \* FROM LIB\_LOG;

WHO ACTION WHEN

--------------- ------------------------------ ---------

SCOTT insert 24-MAY-23

OUTPUT:

SQL> SELECT \* FROM BK\_ISS\_DLS ORDER BY ISS\_ID;

ISS\_ID BK\_ID MEM\_ID ISS\_DATE ISS\_EXPR\_ ISS\_DESC

---------- ---------- ---------- --------- --------- -----------------------------------------------

2001 8 3 12-MAY-23 20-MAY-23 given by neelima to konda at:3.00pm book:Artificial In

2002 5 4 12-MAY-23 20-MAY-23 given by parvathi to vijay at:12.00pm book:Data Struct

2003 4 5 12-MAY-23 20-MAY-23 given by prasad to kumar at:2.00pm book:java

2004 3 4 12-MAY-23 25-MAY-23 given by kiran to vijay at:2.00pm book:c++

2005 2 3 12-MAY-23 25-MAY-23 given by sreenadh to konda at:2.00pm book:python

2006 1 2 12-MAY-23 25-MAY-23 given by neelima to khadar at:1.00pm book:c

2007 7 2 12-MAY-23 27-MAY-23 given by parvathi to khadar at:1.00pm book:.net

2008 6 1 12-MAY-23 27-MAY-23 given by prasad to ajay at:3.00pm book:HTML

2009 9 3 12-MAY-23 30-MAY-23 given by kiran to at:3.00pm

2010 10 4 12-MAY-23 30-MAY-23 given by sreenadh at:3.00pm

2011 8 3 24-MAY-23 05-JUN-23 GIVEN BY KIRAN

2012 9 3 12-MAY-23 30-MAY-23 given by kiran to at:3.00pm

2013 5 2 13-MAY-23 30-MAY-23 given by neelima at 3.30pm

2014 7 2 24-MAY-23 05-JUN-23 GIVEN BY KIRAN

2015 4 1 24-MAY-23 05-JUN-23 GIVEN BY KIRAN

2016 3 1 24-MAY-23 05-JUN-23 GIVEN BY KIRAN

2017 3 5 24-MAY-23 05-JUN-23 GIVEN BY KIRAN

2018 5 4 17-MAY-23 25-MAY-23 given by kiran to vijay at:2.00pm

2019 5 2 16-MAY-23 30-MAY-23 given by neelima at 3.30pm

2020 6 4 24-MAY-23 24-MAY-23 GIVEN BY SREENAH

2021 9 5 24-MAY-23 05-JUN-23 JAVA BOOK

2022 9 4 24-MAY-23 24-MAY-23 GIVEN BY KIRAN

2023 2 3 17-MAY-23 25-MAY-23 given by sreenadh to konda at:2.00Pm

2024 4 5 17-MAY-23 20-MAY-23 given by prasad to kumar at:2.00pm

2025 9 3 24-MAY-23 05-JUN-23 GIVEN BY PARVATHI AT 3.00PM

**25 rows selected.**

**PROCEDURE-4:**

**Q)**Write a procedure which will Add transaction of a new  book in the database

CODE:

CREATE SEQUENCE SEQ\_BKID

START WITH 13

INCREMENT BY 1

MINVALUE 0

MAXVALUE 100000

SQL> ED

Wrote file afiedt.buf

**CREATE OR REPLACE PROCEDURE PROC\_4 (**

**BKNAME VARCHAR2 , BKAUTHOR VARCHAR2 ,**

**BKPUBDATE DATE , BKTYPE VARCHAR2 , BKPRICE NUMBER,**

**BKDESC VARCHAR2) IS**

**BEGIN**

**INSERT INTO BOOK\_MASTER VALUES(SEQ\_BKID.NEXTVAL,BKNAME,BKAUTHOR,BKPUBDATE,BKTYPE,BKPRICE,BKDESC**

**END;**

/

Procedure created.

SQL> EXEC PROC\_4('SQL','CHARNDRA','23-MAY-96','VOLUME 2',3000,'A BOOK PUBLISHED FOR ALL THE STANDARD

S');

PL/SQL procedure successfully completed.

**OUTPUT**:

SQL> SELECT \* FROM BOOK\_MASTER ORDER BY BK\_ID;

BK\_ID BK\_NAME BK\_AUTHOR BK\_PUB\_DA BK\_TYPE BK\_PRICE BK\_DESC

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1 c bala guru swamy 02-FEB-89 reference 3000 A Book Covers all basics of c and data stru

2 python james 09-JAN-78 subject 3000 A Book Covers all basics of python and data struc

3 c++ guru swamy 23-JUL-89 programming 4000 A Book That Describe All About The c c+ wit

4 java james gosling 23-MAR-56 theory 3000 A Book THat Describe All About Java

5 Data Structures ram 23-APR-98 theory 5000 A Book THat Describe All About Data Structur

6 Html raju 21-MAY-86 reference 2000 A Book THat Describe All About Html

7 .Net Ajay 21-JUN-86 reference 2000 A Book THat Describe All About .Net

8 Artificial intiligence ravi 21-AUG-88 theory 3000 A Book THat Describe All About Artifi

9 Deep Learning jhon 21-SEP-78 theory 3000 A Book THat Describe All About Deep Learning

10 Java Script rames 21-OCT-69 programming 2000 A Book THat Describe All About Java Scri

11 Machine Learning jackspot 12-MAY-69 theory 3000 A book that use for all standards

12 Machine Learning jackspot 12-MAY-69 theory 3000 A book that use for all standards

13 SQL CHARNDRA 23-MAY-96 VOLUME 2 3000 A BOOK PUBLISHED FOR ALL THE STANDARDS

13 rows selected.

**Procedure:5**

Q)Write a procedure which will Add transaction of a new member in the database

**CODE:**

**CREATE OR REPLACE PROCEDURE PROC\_5(**

**MEMNAME VARCHAR2 , MEMMOBIL NUMBER , MEMEMAIL VARCHAR2 ,**

**MEMUSER VARCHAR2 , MEMPASS VARCHAR2 , MEMADRS VARCHAR2) IS**

**BEGIN**

**INSERT INTO MEM\_MASTER VALUES(SEQ\_MEMID.NEXTVAL,MEMNAME,MEMMOBIL,MEMEMAIL,MEMUSER,MEMPASS,**

**END;**

**/**

SQL> EXEC PROC\_5('PUSHPA',6547893214,'PUSHPA@GMAIL.COM','PUSHPA','PUSHPA@123','23-1182/3 ONGOLE 5230

01');

PL/SQL procedure successfully completed.

SQL> SELECT \* FROM MEM\_MASTER ORDER BY MEM\_ID;

MEM\_ID MEM\_NAME MEM\_MOBILE MEM\_EMAIL MEM\_USERNAME MEM\_PASS

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1 ajay 7013413075 ajju1677143@gmail.com ajju1234 ajay143

2 khadar 7013413785 khadar@gmail.com khadar1234 kha143

3 konda 7013413785 konda@gmail.com konda1234 kondi143

4 vijay 7013413785 vijay@gmail.com vijay1234 vijju143

5 kumar 7013413785 kumar@gmail.com kumr1234 kumar143

6 PUSHPA 6547893214 PUSHPA@GMAIL.COM PUSHPA PUSHPA@123

6 rows selected.

CONCLUSION

We created a database that a market can use for keeping track on its employees. Employees are devided into salesmen and managers. Salesmen and managers work on departments. A salesman's manager is predetermined by on which department he or she works on, every department having only one manager. Also managers have managers, except the head of the whole market.

In our case we have created the database according to the wishes of our customer, Erkki Jokela. His work gets easier, when he can use a database on a computer, rather than managing employees and managers on paper.

Although we have created this database according to Erkki Jokela's wishes, the model can also be adabted to meet other purposes and thus be used for other projects. The database structure is quite simple, which makes it easy for also other programmers to understand it.

During our database management course we have learned about the basics of database design. This project gave us the opportunity to try our new skills in practice. While doing this project we also gained deeper understanding on database design and how it can be implemented in real life situations. We believe we can use our database designing skills also in other school projects.

REFERENCE

**Text Books:**

1.  “Database System Concepts” by Silberschatz, Korth, Sudarshan, 4th Edition, McGraw Hill          Publication.

**Reference Books:**

 1.   “Database Systems, Concepts, Design and Applications” by S.K.Singh, Pearson Education.

2.   “Database Management Systems” by Raghu Ramakrishnan, Johannes Gehrke, McGraw Hill Publication.

3.    “Fundamentals of Database Systems” by Elmsari, Navathe, 5th Edition, Pearson Education (2008).

---THE END---

DONE BY:

M.AJAY KUMAR

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