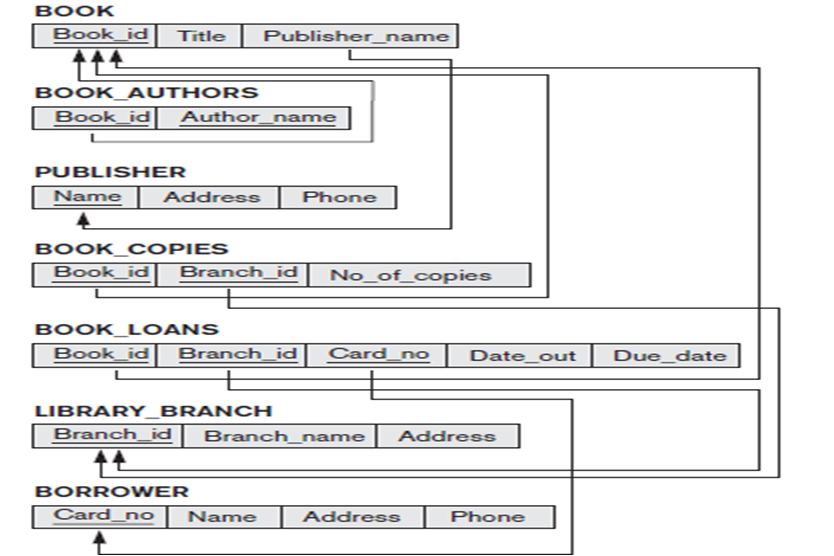
**Assignment No.5**

Name: - Bhavin Ratansing Patil

Roll No.: - 26 SEDA

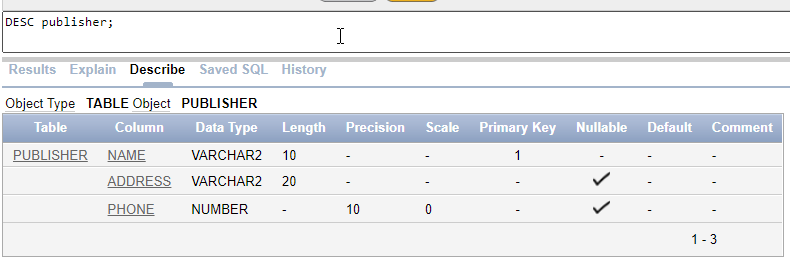
**Que 1. Create the following database with appropriate constraints using DDL and populate/modify it with the help of DML. Use alter table command to modify table schema. Use Primary Key, Foreign Key, Not Null, Unique, etc.**



**Creating Tables:**

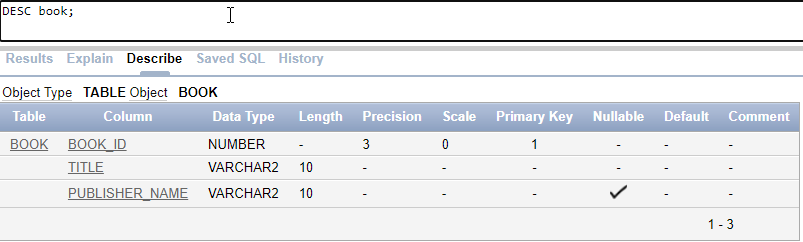
**PUBLISHER table:**

create table PUBLISHER (Name varchar2(10), Address varchar2(20), Phone number(10), PRIMARY KEY(Name));



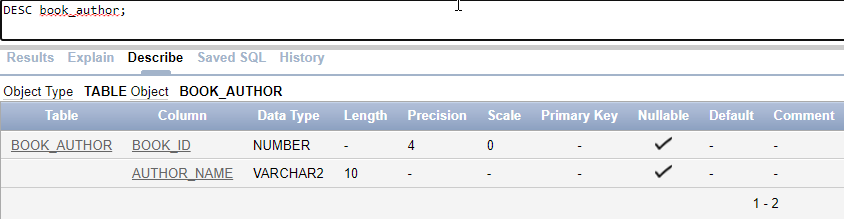
**BOOK table:**

create table BOOK(Book\_id number(3) Primary Key, Title varchar2(10) NOT NULL, Publisher\_Name varchar2(10), FOREIGN KEY(Publisher\_Name) REFERENCES PUBLISHER(Name));



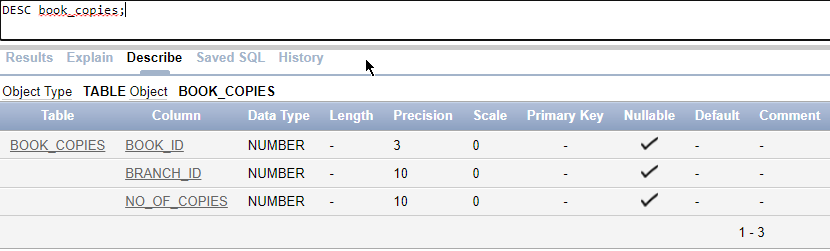
**BOOK\_AUTHOR table:**

create table BOOK\_AUTHOR (Book\_id number(4), Author\_Name varchar2(10), FOREIGN KEY(Book\_id) REFERENCES BOOK(Book\_id));



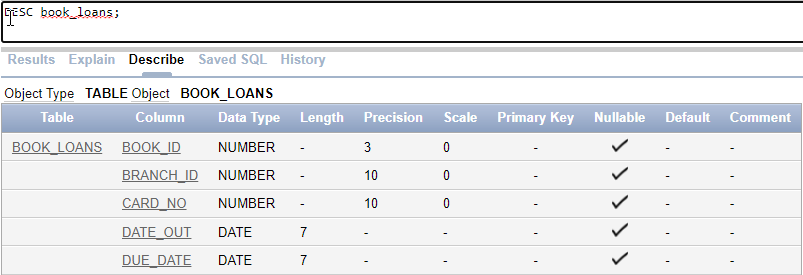
**BOOK\_COPIES table:**

create table BOOK\_COPIES (Book\_id number(3), Branch\_id number(10),No\_of\_copies number(10), CHECK (No\_of\_copies >=10), FOREIGN KEY(BOOK\_ID) REFERENCES BOOK(Book\_id));

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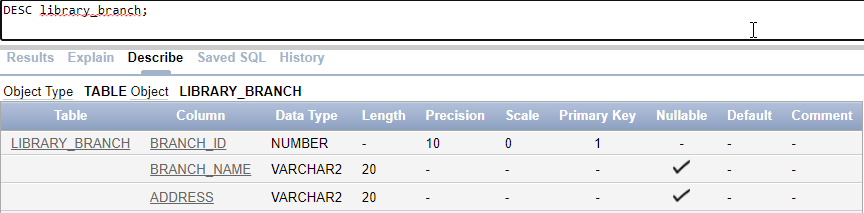
**BOOK\_LOANS table:**

create table BOOK\_LOANS (Book\_id number(3), Branch\_id number(10), Card\_no number(10) UNIQUE , Date\_out date, Due\_date date, FOREIGN KEY(BOOK\_ID) REFERENCES BOOK(Book\_id) );

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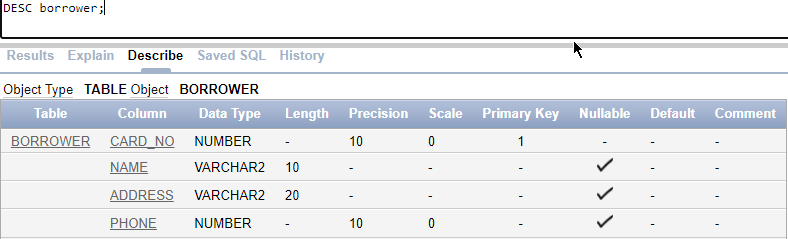
**LIBRARY\_BRANCH table:**

create table LIBRARY\_BRANCH ( Branch\_id number(10) PRIMARY KEY, Branch\_Name varchar2(20), Address varchar2(20) );



**BORROWER table:**

create table BORROWER (Card\_no number(10) PRIMARY KEY, Name varchar2(10), Address varchar2(20), Phone number(10));



**Altering Tables:**

**Alter BOOK\_COPIES to make branch\_id as foreign key:**

alter table BOOK\_COPIES add (FOREIGN KEY(Branch\_id) REFERENCES LIBRARY\_BRANCH (Branch\_id));

**Alter BOOK\_Loans to make branch\_id as foreign key:**

alter table BOOK\_LOANS add (FOREIGN KEY(Branch\_id) REFERENCES LIBRARY\_BRANCH (Branch\_id));

**Alter BOOK\_Loans to make Card\_no as foreign key:**

alter table BOOK\_LOANS add (FOREIGN KEY(Card\_no) REFERENCES BORROWER (Card\_no));