



SISTER NIVEDITA UNIVERSITY



DATABASE MANAGEMENT SYSTEM LAB FILE

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DEPT- BTECH (CSE), ROLL- 1027

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ASSIGNMENT 1

02/09/2020 – 09/09/2020

1. Create a table “Student” with following structure:

ROLL	NAME	AGE	COURSE	MATHS	PHYSICS	COMPUTER	BIRTHDAY
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Details of Attributes:-

Roll Number (S)

Name Varchar2 (30)

Age Number (S)

Course Varchar2 (5)

Math Number (6, 2)

Physics Number (6, 2)

Computer Number (6, 2)

Birthday Date

➤ create table student

```
(    roll number(5) PRIMARY KEY,  
        name varchar2(30),  
        age number(5),  
        course varchar2(5),  
        math number(6,2),  
        physics number(6,2),  
        computer number(6,2),  
        birthday date      );
```

```
desc student;
```

The screenshot shows the Oracle SQL Workshop interface. In the top-left, there's a browser window titled 'Inbox - piyushchandrababu@...' with the URL '127.0.0.1:3080/apex/f?p=4500:1003:899882382738997:NO::'. Below it, the SQL Workshop tab is active. The SQL editor contains the following code:

```
Create table student  
( roll number(5) PRIMARY KEY,  
  name varchar2(30),  
  age number(5),  
  course varchar2(5),  
  math number(6,2),  
  physics number(6,2),  
  computer number(6,2),  
  birthday date );  
  
desc student;
```

Below the editor, the 'Results' tab is selected, showing the description of the STUDENT table:

Object Type	Table	Column	Data type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
STUDENT	ROLL	NUMBER	-	5	0	-	1	-	-	-
	NAME	VARCHAR2	30	-	-	-	-	✓	-	-
	AGE	NUMBER	-	5	0	-	-	✓	-	-
	COURSE	VARCHAR2	5	-	-	-	-	✓	-	-
	MATH	NUMBER	-	6	2	-	-	✓	-	-
	PHYSICS	NUMBER	-	6	2	-	-	✓	-	-
	COMPUTER	NUMBER	-	6	2	-	-	✓	-	-
	BIRTHDAY	DATE	7	-	-	-	-	✓	-	-

2. Create table MSC from the Student table with the same fields and same structure but without any data.

- create table MSC as select * from student;
desc MSC;

3. Display the structure of MSC table.

The screenshot shows the Oracle SQL Workshop interface. In the top navigation bar, the path is Home > SQL Workshop > SQL Commands. Below the toolbar, there is a SQL editor window containing the following code:

```
create table MSC as select * from student;
desc MSC;
```

Below the editor, the results are displayed in a table titled "Object Type TABLE Object MSC". The table has columns: Table, Column, Data Type, Length, Precision, Scale, Primary Key, Nullable, Default, and Comment. The data is as follows:

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
MSC	ROLL	NUMBER	-	5	0	-	✓	-	-
	NAME	VARCHAR2	30	-	-	-	✓	-	-
	AGE	NUMBER	-	5	0	-	✓	-	-
	COURSE	VARCHAR2	5	-	-	-	✓	-	-
	MATH	NUMBER	-	6	2	-	✓	-	-
	PHYSICS	NUMBER	-	6	2	-	✓	-	-
	COMPUTER	NUMBER	-	6	2	-	✓	-	-
	BIRTHDAY	DATE	7	-	-	-	✓	-	-

4. Create table 'MCA' from the Student table with the same fields and same structure but without any data. Rename Course with Department and Name with First Name. Display the structure of MCA table.

- create table MCA as select * from student;
desc MCA;
ALTER TABLE MCA
RENAME COLUMN COURSE to DEPARTMENT;
ALTER TABLE MCA
RENAME COLUMN NAME to FIRSTNAME;

The screenshot shows the Oracle SQL Workshop interface. In the top-left corner, there's a browser tab labeled 'Inbox - piyushchandrachandra6'. The main window has tabs for 'Application Builder', 'SQL Workshop' (which is selected), 'Team Development', and 'Administration'. Below the tabs, there's a toolbar with icons for 'Autocommit', 'Rows', 'Save', and 'Run'. The SQL editor contains the following code:

```

create table MCA as select * from student;
drop table MCA;
ALTER TABLE MCA
RENAME COLUMN COURSE to DEPARTMENT;
ALTER TABLE MCA
RENAME COLUMN NAME to FIRSTNAME;

```

Below the code, there are tabs for 'Results', 'Explain', 'Describe', 'Saved SQL', and 'History'. A table titled 'Object Type TABLE Object MCA' is displayed, showing the structure of the MCA table:

Table	Column	Data type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
MCA	ROLL	NUMBER	-	5	0	-	✓	-	-
	FIRSTNAME	VARCHAR2	30	-	-	-	✓	-	-
	AGE	NUMBER	-	5	0	-	✓	-	-
	DEPARTMENT	VARCHAR2	5	-	-	-	✓	-	-
	MATH	NUMBER	-	6	2	-	✓	-	-
	PHYSICS	NUMBER	-	6	2	-	✓	-	-
	COMPUTER	NUMBER	-	6	2	-	✓	-	-
	BIRTHDAY	DATE	7	-	-	-	✓	-	-

5. Insert following records into the Student table:-

- 1, Rahul, 19, BCA, 79.5, 67, 89, 15-jun-93
 - 2, Kunal, 21, BCA, 68, 76, 59.5, 16-aug-91
 - 3, Aditi, 20, MSc, 90, 73, 56, 20-sep-92
 - 4, Sumit, 20, MCA, 57.5, 78, 81, 07-dec-91
 - 5, Anirban, 22, MCA, 80, 68, 63, 15-sep-94
 - 6, Kumkum, 21, BCA, 72, 54.5, 60, 08-feb-95
 - 7, Suman, 21, BCA, 91.5, 32, 61, 10-mar-94
 - 8, Rohit, 22, MSc, 85, 76, 92, 19-apr-92
- insert into student values(1,'Rahul',19,'BCA',79.5,67,89,'06-15-93');
 insert into student values(2,'Kunal',21,'BCA',68,76,59.5,'08-16-91');
 insert into student values(3,'Aditi',20,'Msc',90,73,56,'09-20-92');
 insert into student values(4,'Sumit',20,'MCA',57.5,78,81,'12-07-91');
 insert into student values(5,'Anirban',22,'MCA',80,68,63,'09-15-94');
 insert into student values(6,'Kumkum',21,'BCA',72,54.5,60,'02-08-95');
 insert into student values(7,'Suman',21,'BCA',91.5,32,61,'03-10-94');
 insert into student values(8,'Rohit',22,'Msc',85,76,92,'04-19-92');

6. Display all the students' details from Student table

- Select * from student;

The screenshot shows a browser window for Oracle Application Express. The URL is 127.0.0.1:8080/apex/f?p=4500:1003:89982382738997:NO:::. The page title is "Inbox - piyushchandrachandra@...". The menu bar includes Home, Application Builder, SQL Workshop, Team Development, Administration, and Help. The SQL Workshop tab is selected. The SQL editor contains the following code:

```
Insert into student values(1,'Rahul',19,'BCA',79.5,67,89,'06-15-93');
Insert into student values(2,'Kunal',21,'BCA',68.76,59.5,'08-16-91');
Insert into student values(3,'Aditi',20,'Msc',90.73,56,'09-20-92');
Insert into student values(4,'Sumit',20,'MCA',57.5,78,81,'12-07-91');
Insert into student values(5,'Anirban',22,'MCA',89.68,63,'09-15-94');
Insert into student values(6,'Kumik',21,'BCA',72.54,5.60,'02-08-95');
Insert into student values(7,'Suman',21,'BCA',91.5,32,61,'03-18-94');
Insert into student values(8,'Rohit',22,'Msc',85.76,92,'04-19-92');
select * from student;
```

The Results section shows the following data:

ROLL	NAME	AGE	COURSE	MATH	PHYSICS	COMPUTER	BIRTHDAY
1	Rahul	19	BCA	79.5	67	89	06/15/0093
2	Kunal	21	BCA	68	76	59.5	08/16/0091
3	Aditi	20	Msc	90	73	56	09/20/0092
4	Sumit	20	MCA	57.5	78	81	12/07/0091
5	Anirban	22	MCA	80	68	63	09/15/0094
6	Kumik	21	BCA	72	54.5	60	02/08/0095
7	Suman	21	BCA	91.5	32	61	03/10/0094
8	Rohit	22	Msc	85	76	92	04/19/0092

8 rows returned in 0.05 seconds

7. Find out the details of the students with roll no 5 from Student table.

- Select * from student where roll = 5;

The screenshot shows a browser window for Oracle Application Express. The URL is 127.0.0.1:8080/apex/f?p=4500:1003:89982382738997:NO:::. The page title is "Inbox - piyushchandrachandra@...". The menu bar includes Home, Application Builder, SQL Workshop, Team Development, Administration, and Help. The SQL Workshop tab is selected. The SQL editor contains the following code:

```
Insert into student values(1,'Rahul',19,'BCA',79.5,67,89,'06-15-93');
Insert into student values(2,'Kunal',21,'BCA',68.76,59.5,'08-16-91');
Insert into student values(3,'Aditi',20,'Msc',90.73,56,'09-20-92');
Insert into student values(4,'Sumit',20,'MCA',57.5,78,81,'12-07-91');
Insert into student values(5,'Anirban',22,'MCA',89.68,63,'09-15-94');
Insert into student values(6,'Kumik',21,'BCA',72.54,5.60,'02-08-95');
Insert into student values(7,'Suman',21,'BCA',91.5,32,61,'03-18-94');
Insert into student values(8,'Rohit',22,'Msc',85.76,92,'04-19-92');
select * from student;
select * from student where roll = 5;
```

The Results section shows the following data:

ROLL	NAME	AGE	COURSE	MATH	PHYSICS	COMPUTER	BIRTHDAY
5	Anirban	22	MCA	80	68	63	09/15/0094

1 rows returned in 0.00 seconds

8. Show the roll, name, marks of all subjects for all students from Student table.

- select roll,name,math,physics,computer from student;

The screenshot shows the Oracle Application Express interface with the SQL Commands page open. The code entered is:

```
Insert into student values(1, 'Rahul', 21, 'BCA', 79.5, 67, 56, '08-10-91');
Insert into student values(2, 'Kunal', 21, 'BCA', 68.75, 56, '09-20-92');
Insert into student values(3, 'Aditi', 20, 'Msc', 98.75, 56, '09-20-92');
Insert into student values(4, 'Sunit', 20, 'BCA', 57.5, 78, 81, '09-07-91');
Insert into student values(5, 'Anirban', 22, 'BCA', 80, 68, 63, '09-07-91');
Insert into student values(6, 'Kumkum', 21, 'BCA', 72, 54.5, 60, '02-08-95');
Insert into student values(7, 'Suman', 21, 'BCA', 91.5, 32, 61, '03-10-94');
Insert into student values(8, 'Rohit', 22, 'BCA', 85, 76, 92, '04-19-92');
select * from student;
```

The results section displays the following data:

ROLL	NAME	MATH	PHYSICS	COMPUTER
1	Rahul	79.5	67	56
2	Kunal	68.75	56	56
3	Aditi	98.75	56	56
4	Sunit	57.5	78	81
5	Anirban	80	68	63
6	Kumkum	72	54.5	60
7	Suman	91.5	32	61
8	Rohit	85	76	92

8 rows returned in 0.00 seconds [Download](#)

9. Insert data in the 'MCA' table from 'Student' table where course is MCA.

- insert into MCA select * from student where course = 'MCA';

10. Display the structure of and 'MCA' table.

- Select * from MCA;

The screenshot shows the Oracle Application Express interface with the SQL Commands page open. The code entered is:

```
create table MCA as select * from student;
desc MCA;
ALTER TABLE MCA
RENAME COLUMN AGE to DEPARTMENT;
ALTER TABLE MCA
RENAME COLUMN BIRTHDAY to DEPARTMENT;
ALTER TABLE MCA
RENAME COLUMN FIRSTNAME to FIRSTNAME;
Insert into MCA select * from student where course = 'BCA';
select * from MCA;
```

The results section displays the following data:

ROLL	FIRSTNAME	AGE	DEPARTMENT	MATH	PHYSICS	COMPUTER	BIRTHDAY
4	Sunit	20	MCA	57.5	78	81	12/07/0091
5	Anirban	22	MCA	80	68	63	09/15/0094

2 rows returned in 0.00 seconds [Download](#)

11. Update the Math marks of the student with Roll no 7 from 91 to 95 in the ‘Student’ table.

- update student
set math = 95
where roll = 7;

The screenshot shows the Oracle Application Express interface with the SQL Commands page open. The code entered is:

```
create table MCA as select * from student;
desc MCA;
ALTER TABLE MCA
RENAME COLUMN COURSE to DEPARTMENT;
ALTER TABLE MCA
RENAME COLUMN DEPARTMENT to FIRSTNAME;
insert into MCA select * from student where course = 'MCA';
select * from MCA;
update student
set math = 95
where roll = 7;
select * from student;
```

The results section displays the student data, including the updated record for student ID 7:

ROLL	NAME	AGE	COURSE	MATH	PHYSICS	COMPUTER	BIRTHDAY
1	Rahul	19	BCA	79.5	67	89	06/15/0093
2	Kunal	21	BCA	68	76	59.5	08/16/0091
3	Aditi	20	Msc	90	73	56	09/20/0092
4	Sumit	20	MCA	57.5	78	81	12/07/0091
5	Anirban	22	MCA	80	68	63	09/15/0094
6	Kumkum	21	BCA	72	54.5	60	02/08/0095
7	Suman	21	BCA	95	32	61	03/10/0094
8	Rohit	22	Msc	85	76	92	04/19/0092

8 rows returned in 0.00 seconds [Download](#)

12. Delete the details of the student with Roll no 2 from the ‘Student’ table.

- delete student where roll = 2;

The screenshot shows the Oracle Application Express interface with the SQL Workshop page open. The code entered is:

```
create table MCA as select * from student;
desc MCA;
ALTER TABLE MCA
RENAME COLUMN COURSE to DEPARTMENT;
ALTER TABLE MCA
RENAME COLUMN DEPARTMENT to FIRSTNAME;
insert into MCA select * from student where course = 'MCA';
select * from MCA;
update student
set math = 95
where roll = 7;
select * from student;
delete student
where roll = 2;
```

The results section displays the student data, excluding the record for student ID 2:

ROLL	NAME	AGE	COURSE	MATH	PHYSICS	COMPUTER	BIRTHDAY
1	Rahul	19	BCA	79.5	67	89	06/15/0093
3	Aditi	20	Msc	90	73	56	09/20/0092
4	Sumit	20	MCA	57.5	78	81	12/07/0091
5	Anirban	22	MCA	80	68	63	09/15/0094
6	Kumkum	21	BCA	72	54.5	60	02/08/0095
7	Suman	21	BCA	95	32	61	03/10/0094
8	Rohit	22	Msc	85	76	92	04/19/0092

7 rows returned in 0.00 seconds [Download](#)

Application Express 4.0.2.00.09

ASSIGNMENT 2

09/09/2020 – 16/09/2020

1. Create the following tables with appropriate constraints using SQL command.

A) Table Name : **Member**

COLUMN NAME	DATA TYPE	DESCRIPTION
Member_Id	Number(5)/ Integer(5)	Unique Member ID
Member_Name	Varchar(30)	Name of the Library member
Member_address	Varchar2(50)	Address of the member
Acc_Open_Date	Date	Date of membership
Membership_type	Varchar2(20)	Type of the membership such as „Lifetime“, „Annual“, „Half Yearly“, „Quarterly“
Fees_paid	Number(4)	Membership fees paid
Max_Books_Allowed	Number(2)	Total Number of books that can be issued to the member.
Penalty_Amount	Number(7,2)	Penalty amount due

CONSTRAINT:

- a. Member_Id – Primary Key
- b. Member_Name – NOT NULL
- c. Membership_type - „Lifetime“, „Annual“, „Half Yearly“, „Quarterly“
- d. Max_books_allowed <7
- e. Penalty_amt maximum 1000

```
> CREATE TABLE Member_Piyush
(
    Member_Id NUMBER(5),
    Member_Name VARCHAR(30),
    Member_address VARCHAR2(50),
    Acc_Open_Date DATE,
    Membership_type VARCHAR2(20),
    Fees_paid NUMBER(4),
    Max_Books_Allowed NUMBER(2),
    Penalty_Amount NUMBER(7,2)
);
desc Member_Piyush;
ALTER TABLE Member_Piyush ADD CONSTRAINT P1 PRIMARY KEY(Member_Id);
ALTER TABLE Member_Piyush MODIFY(Member_Name NOT NULL);
ALTER TABLE Member_Piyush ADD CONSTRAINT M1 CHECK(Membership_type
IN('Lifetime', 'Annual', 'Half Yearly', 'Quarterly'));
```

```
ALTER TABLE Member_Piyush ADD CONSTRAINT M2 CHECK(Max_Books_Allowed <7);
```

```
ALTER TABLE Member_Piyush ADD CONSTRAINT M3 CHECK(Penalty_Amount <= 1000);
```

The screenshot shows the Oracle SQL Developer interface. In the top-left corner, there's a tab labeled "SQL Commands". Below it, the URL is shown as "127.0.0.1:8080/apex/f?p=4500:1003:215682278020199::NO::". The main area contains the following SQL code:

```
CREATE TABLE Member_Piyush
(
    Member_Id NUMBER(5),
    Member_Name VARCHAR2(30),
    Member_Address VARCHAR2(50),
    Acc_Open_Date DATE,
    Membership_type VARCHAR2(20),
    Fees_Paid NUMBER(7,2),
    Max_Books_Allowed NUMBER(2),
    Penalty_Amount NUMBER(7,2)
);
DESC Member_Piyush;
ALTER TABLE Member_Piyush ADD CONSTRAINT P1 PRIMARY KEY(Member_Id);
ALTER TABLE Member_Piyush ADD CONSTRAINT M1 CHECK(Membership_type IN('Lifetime', 'Annual', 'Half Yearly', 'Quarterly'));
ALTER TABLE Member_Piyush ADD CONSTRAINT M2 CHECK(Max_Books_Allowed <7);
ALTER TABLE Member_Piyush ADD CONSTRAINT M3 CHECK(Penalty_Amount <= 1000);
```

Below the code, there's a table titled "Object Type TABLE Object MEMBER_PIYUSH" with columns: Table, Column, Data Type, Length, Precision, Scale, Primary Key, Nullable, Default, and Comment. The table structure is as follows:

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
MEMBER_PIYUSH	MEMBER_ID	NUMBER	-	5	0	1	-	-	-
	MEMBER_NAME	VARCHAR2	30	-	-	-	-	-	-
	MEMBER_ADDRESS	VARCHAR2	50	-	-	-	✓	-	-
	ACC_OPEN_DATE	DATE	7	-	-	-	✓	-	-
	MEMBERSHIP_TYPE	VARCHAR2	20	-	-	-	✓	-	-
	FEES_PAID	NUMBER	-	4	0	-	✓	-	-
	MAX_BOOKS_ALLOWED	NUMBER	-	2	0	-	✓	-	-
	PENALTY_AMOUNT	NUMBER	-	7	2	-	✓	-	-

2. Create the following tables with appropriate constraints using SQL command.

B) Table Name : **BOOKS**

COLUMN NAME	DATA TYPE	DESCRIPTION
Book_No	Number(6)	Book identification number
Book_Name	VarChar2(30)	Name of the book
Author_name	Varchar2(30)	Author of the book
Cost	Number(7,2)	Cost of the book
Category	Char(10)	Category like Science , Fiction etc.

CONSTRAINT:

- a. Book_No – Primary Key
- b. Book_Name – Not Null
- c. Category – Science, Database, System, Others.

➤ CREATE TABLE Book_Piyush

```

(
    Book_No Number(6) PRIMARY KEY,
    Book_Name VarChar2(30) NOT NULL,
    Author_name Varchar2(30),
    Cost Number(7,2),
    Category VARCHAR2(10),
);
DESC Book_Piyush;
ALTER TABLE Books ADD CONSTRAINTS B1 PRIMARY KEY(Book_no);
ALTER TABLE Books MODIFY(Book_name NOT NULL);
ALTER TABLE Books ADD CONSTRAINT B2 CHECK(Category IN ('Science', 'Database',
'System', 'Others'));

```

The screenshot shows the Oracle Application Express interface with the SQL Workshop tab selected. The code area contains the SQL statements for creating the Book table and adding constraints B1 and B2. Below the code, the Results tab is active, displaying the table structure with five columns: Book_No, Book_Name, Author_name, Cost, and Category. The constraints section at the bottom shows B1 and B2 defined. The status bar indicates the application version is 4.0.2.0.0.9.

```

CREATE TABLE Book
(
    Book_No NUMBER(6),
    Book_Name VARCHAR2(30),
    Author_name VARCHAR2(30),
    Cost NUMBER(7,2),
    Category VARCHAR2(10)
);
ALTER TABLE Book ADD CONSTRAINTS B1 PRIMARY KEY(Book_no);
ALTER TABLE Book MODIFY(Book_name NOT NULL);
ALTER TABLE Book ADD CONSTRAINT B2 CHECK(Category IN ('Science', 'Database',
'System', 'Others'));

```

Table	Column	Data type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
BOOK	BOOK_NO	NUMBER	-	6	0	1	-	-	-
	BOOK_NAME	VARCHAR2	30	-	-	-	-	-	-
	AUTHOR_NAME	VARCHAR2	30	-	-	-	✓	-	-
	COST	NUMBER	-	7	2	-	✓	-	-
	CATEGORY	VARCHAR2	10	-	-	-	✓	-	-

3. Create the following tables with appropriate constraints using SQL command.

C) Table Name : **ISSUE**

COLUMN NAME	DATA TYPE	DESCRIPTION
Lib_Issue_Id	Number(10)	Library Book Issue No
Book_No	Number(6)	The ID of book, which is issued
Member_Id	Number(5)	Member that issued the book
Issue_Date	Date	Date of Issue
Return_date	Date	Return date

CONSTRAINT:

- a. Lib_Issue_Id -Primary key
- b. Book_No - foreign key
- c. Member_id - foreign key

➤ CREATE TABLE ISSUE

```
(

Lib_Issue_Id NUMBER(10) PRIMARY KEY,
Book_No NUMBER(6),
FOREIGN KEY(Book_No) REFERENCES Book(Book_No),
Member_Id NUMBER(5),
FOREIGN KEY(Member_Id) REFERENCES Member_Piyush(Member_Id),
Issue_date DATE,
Return_date DATE
);

desc ISSUE;
```

The screenshot shows the Oracle Application Express interface with the following details:

SQL Commands:

```
CREATE TABLE ISSUE
(
  Lib_Issue_Id NUMBER(10) PRIMARY KEY,
  Book_No NUMBER(6),
  FOREIGN KEY(Book_No) REFERENCES Book(Book_No),
  Member_Id NUMBER(5),
  FOREIGN KEY(Member_Id) REFERENCES Member_Piyush(Member_Id),
  Issue_date DATE,
  Return_date DATE
);
desc ISSUE;
```

Object Type: TABLE Object: ISSUE

Table	Column	Data Type	Length	Precision	Scale	Primary Key	Nullable	Default	Comment
ISSUE	LIB_ISSUE_ID	NUMBER	-	10	0	1	-	-	-
	BOOK_NO	NUMBER	-	6	0	-	✓	-	-
	MEMBER_ID	NUMBER	-	5	0	-	✓	-	-
	ISSUE_DATE	DATE	7	-	-	-	✓	-	-
	RETURN_DATE	DATE	7	-	-	-	✓	-	-

Bottom right corner of the screenshot displays: Application Express 4.0.2.0.09

1. Insert the following data to the appropriate table using SQL command.

A) Table Name : Member

MEMBER_ID	MEMBER_NAME	MEMBER_ADDRESS	ACC_OPEN_DATE	MEMBERSHIP_TYPE	FEES_PAID	MAX_BOOKS_ALLOWED	PENALTY_AMOUNT
1	Sayantan Sinha	Pune	10-Dec-10	Lifetime	2000	6	50
2	Abhirup Sarkar	Kolkata	19-jan-11	Annual	1400	3	0
3	Ritesh Bhuniya	Gujarat	20-feb-11	Quarterly	350	2	100
4	Paresh sen	Tripura	21-mar-11	Half yearly	700	1	200
5	Sohini Haldar	Birbhum	11-apr-11	Lifetime	2000	6	10
6	Suparna Biswas	Kolkata	12-apr-11	Half Yearly	700	1	0
7	Suranjana Basu	Purulia	30-june-11	Annual	1400	3	50
8	Arpita Roy	Kolkata	31-july-11	Half yearly	700	1	0

```

➤ CREATE TABLE Member_Piyush
(
    Member_Id NUMBER(5),
    Member_Name VARCHAR(30),
    Member_address VARCHAR2(50),
    Acc_Open_Date DATE,
    Membership_type VARCHAR2(20),
    Fees_paid NUMBER(4),
    Max_Books_Allowed NUMBER(2),
    Penalty_Amount NUMBER(7,2)
);
desc Member_Piyush;
ALTER TABLE Member_Piyush ADD CONSTRAINT P1 PRIMARY KEY(Member_Id);
ALTER TABLE Member_Piyush MODIFY(Member_Name NOT NULL);
ALTER TABLE Member_Piyush ADD CONSTRAINT M1 CHECK(Membership_type
IN('Lifetime', 'Annual', 'Half Yearly', 'Quarterly'));
ALTER TABLE Member_Piyush ADD CONSTRAINT M2 CHECK(Max_Books_Allowed
<7);
ALTER TABLE Member_Piyush ADD CONSTRAINT M3 CHECK(Penalty_Amount <=
1000);

```

```

SELECT SYSDATE FROM DUAL;

INSERT INTO Member_Piyush VALUES(1,'SAYANTAN
SINHA','PUNE','12/10/2010','Lifetime',2000,6,50);

INSERT INTO Member_Piyush VALUES(2,'ABHIRUP
SARKAR','KOLKATA','01/19/2011','Annual',1400,3,0);

INSERT INTO Member_Piyush VALUES(3,'Ritesh
Bhuniya','Gujarat','02/20/2011','Quarterly',350,2,100);

INSERT INTO Member_Piyush VALUES(4,'Paresh sen','Tripura','03/21/2011','Half
Yearly',700,1,200);

INSERT INTO Member_Piyush VALUES(5,'Sohini
Haldar','Birbhum','04/11/2011','Lifetime',2000,6,10);

INSERT INTO Member_Piyush VALUES(6,'Suparna Biswas','Kolkata','04/12/2011','Half
Yearly',700,1,0);

INSERT INTO Member_Piyush VALUES(7,'Suranjana
Basu','Purulia','06/30/2011','Annual',1400,3,50);

INSERT INTO Member_Piyush VALUES(8,'Arpita Roy','Kolkata','07/31/2011','Half
Yearly',700,1,0);

SELECT * FROM Member_Piyush;

```

The screenshot shows the Oracle Application Express SQL Commands interface. The URL is 127.0.0.1:8080/apex/?p=4500:1003:7196860299536789:NO. The page title is ORACLE Application Express. The SQL command entered is:

```

Penalty_Amount NUMBER(7,2)
);
ALTER TABLE Member_Piyush ADD CONSTRAINT PK_MEMBER_ID PRIMARY KEY(Member_Id);
ALTER TABLE Member_Piyush MODIFY(Member_Name NOT NULL);
ALTER TABLE Member_Piyush ADD CONSTRAINT CK_MEMBERSHIP_TYPE CHECK(Membership_Type IN('Lifetime', 'Annual', 'Half Yearly', 'Quarterly'));
ALTER TABLE Member_Piyush ADD CONSTRAINT CK_NUM_OF_BOOKS_ALLOWED CHECK(Num_of_Books_Allowed > 0);
ALTER TABLE Member_Piyush ADD CONSTRAINT CK_PENALTY_AMOUNT CHECK(Penalty_Amount < 1000);
SELECT SYSDATE FROM DUAL;
INSERT INTO Member_Piyush VALUES(1, 'SAYANTAN SINHA', 'PUNE', '12/10/2010', 'Lifetime', 2000, 6, 50);
INSERT INTO Member_Piyush VALUES(2, 'ABHIRUP SARKAR', 'KOLKATA', '01/19/2011', 'Annual', 1400, 3, 0);
INSERT INTO Member_Piyush VALUES(3, 'Ritesh Bhuniya', 'Gujarat', '02/20/2011', 'Quarterly', 350, 2, 100);
INSERT INTO Member_Piyush VALUES(4, 'Paresh sen', 'Tripura', '03/21/2011', 'Half Yearly', 700, 1, 200);
INSERT INTO Member_Piyush VALUES(5, 'Sohini Haldar', 'Birbhum', '04/11/2011', 'Lifetime', 2000, 6, 10);
INSERT INTO Member_Piyush VALUES(6, 'Suparna Biswas', 'Kolkata', '04/12/2011', 'Half Yearly', 700, 1, 0);
INSERT INTO Member_Piyush VALUES(7, 'Suranjana Basu', 'Purulia', '06/30/2011', 'Annual', 1400, 3, 50);
INSERT INTO Member_Piyush VALUES(8, 'Arpita Roy', 'Kolkata', '07/31/2011', 'Half Yearly', 700, 1, 0);
SELECT * FROM Member_Piyush;

```

The Results tab displays the data from the Member_Piyush table:

MEMBER_ID	MEMBER_NAME	MEMBER_ADDRESS	ACC_OPEN_DATE	MEMBERSHIP_TYPE	FEES_PAID	MAX_BOOKS_ALLOWED	PENALTY_AMOUNT
5	Sohini Haldar	Birbhum	04/11/2011	Lifetime	2000	6	10
6	Suparna Biswas	Kolkata	04/12/2011	Half Yearly	700	1	0
7	Suranjana Basu	Purulia	06/30/2011	Annual	1400	3	50
8	Arpita Roy	Kolkata	07/31/2011	Half Yearly	700	1	0
1	SAYANTAN SINHA	PUNE	12/10/2010	Lifetime	2000	6	50
2	ABHIRUP SARKAR	KOLKATA	01/19/2011	Annual	1400	3	0
3	Ritesh Bhuniya	Gujarat	02/20/2011	Quarterly	350	2	100
4	Paresh sen	Tripura	03/21/2011	Half Yearly	700	1,200	200

8 rows returned in 0.01 seconds [Download](#)

2. Insert the following data to the appropriate table using SQL command.

B) Table Name : BOOKS

BOOK_NO	BOOK_NAME	AUTHOR_NAME	COST	CATEGORY
101	Let us C	Denis Ritchie	450	Others
102	Oracle – Complete Ref	Loni	550	Database
103	Visual Basic 10	BPB	700	Others
104	Mastering SQL	Loni	450	Database
105	PL SQL-Ref	Scott Urman	750	Database
106	UNIX	Sumitava Das	300	System
107	Optics	Ghatak	600	Science
108	Data Structure	G.S. Baluja	350	Others

➤ CREATE TABLE Book
(
 Book_No NUMBER(6),
 Book_Name VARCHAR(30),
 Author_name VARCHAR2(30),
 Cost NUMBER(7,2),
 Category VARCHAR2(10)
);
desc Book;
ALTER TABLE Book ADD CONSTRAINTS B1 PRIMARY KEY(Book_No);
ALTER TABLE Book MODIFY(Book_Name NOT NULL);
ALTER TABLE Book ADD CONSTRAINT B2 CHECK(Category IN ('Science', 'Database', 'System', 'Others'));
INSERT INTO Book VALUES(101, 'Let us C', 'Denis Ritchie', 450 , 'Others')
INSERT INTO Book VALUES(102, 'Oracle – Complete Ref', 'Loni' , 550, 'Database')
INSERT INTO Book VALUES(103, 'Visual Basic 10', 'BPB' , 700 , 'Others')
INSERT INTO Book VALUES(104, 'Mastering SQL', 'Loni', 450 , 'Database')
INSERT INTO Book VALUES(105, 'PL SQL-Ref' , 'Scott Urman' , 750 , 'Database')
INSERT INTO Book VALUES(106, 'UNIX' , 'Sumitava Das', 300, 'System')
INSERT INTO Book VALUES(107, 'Optics', 'Ghatak' , 600 , 'Science')
INSERT INTO Book VALUES(108, 'Data Structure', 'G.S. Baluja' , 350 , 'Others')
SELECT * FROM Book;

The screenshot shows the Oracle Application Express SQL Workshop interface. The top navigation bar includes Home, Application Builder, SQL Workshop, Team Development, and Administration. The SQL Workshop tab is selected. Below the tabs, the path Home > SQL Workshop > SQL Commands is shown. The main area contains an SQL editor window with the following code:

```

Book_No NUMBER(10),
Book_Name VARCHAR2(30),
Author_name VARCHAR2(30),
Cost NUMBER(7,2),
Category VARCHAR2(10)
);
--PL/SQL Block;
ALTER TABLE Book ADD CONSTRAINTS B1 PRIMARY KEY(Book_No);
ALTER TABLE Book MODIFY(Book_Name NOT NULL);
INSERT INTO Book VALUES(101, 'Let us C', 'Denis Ritchie', 450, 'Science');
INSERT INTO Book VALUES(102, 'Oracle - Complete Ref.', 'Loni', 550, 'Database');
INSERT INTO Book VALUES(103, 'Visual Basic 10', 'BPB', 700, 'Others');
INSERT INTO Book VALUES(104, 'Mastering SQL', 'Loni', 450, 'Database');
INSERT INTO Book VALUES(105, 'PL SQL-Ref', 'Scott Urman', 750, 'Database');
INSERT INTO Book VALUES(106, 'UNIX', 'Sumitava Das', 300, 'System');
INSERT INTO Book VALUES(107, 'Optics', 'Ghatak', 600, 'Science');
INSERT INTO Book VALUES(108, 'Data Structure', 'G.S. Baluja', 350, 'Others');
SELECT * FROM Books;

```

The Results tab is active, displaying the following table output:

BOOK_NO	BOOK_NAME	AUTHOR_NAME	COST	CATEGORY
101	Let us C	Denis Ritchie	450	Others
103	Visual Basic 10	BPB	700	Others
104	Mastering SQL	Loni	450	Database
106	UNIX	Sumitava Das	300	System
108	Data Structure	G.S. Baluja	350	Others
102	Oracle - Complete Ref	Loni	550	Database
105	PL SQL-Ref	Scott Urman	750	Database
107	Optics	Ghatak	600	Science

8 rows returned in 0.04 seconds [Download](#)

3. Insert the following data to the appropriate table using SQL command.

C) Table Name : ISSUE

LIB_ISSUE_ID	BOOK_NO	MEMBER_ID	ISSUE_DATE	RETURN_DATE
7001	101	1	10-jan-11	
7002	102	2	25-jan-11	
7003	104	1	1-Feb-11	
7004	104	2	15-Mar-11	
7005	101	4	04-Apr-11	
7006	108	5	12-apr-11	
7007	101	8	1-Aug-11	

➤ CREATE TABLE ISSUE

```

(
Lib_Issue_Id NUMBER(10) PRIMARY KEY,
Book_No NUMBER(6),
FOREIGN KEY(Book_No) REFERENCES Book(Book_No),
Member_Id NUMBER(5),
FOREIGN KEY(Member_Id) REFERENCES Member_Piyush(Member_Id),
Issue_date DATE,
Return_date DATE
);

```

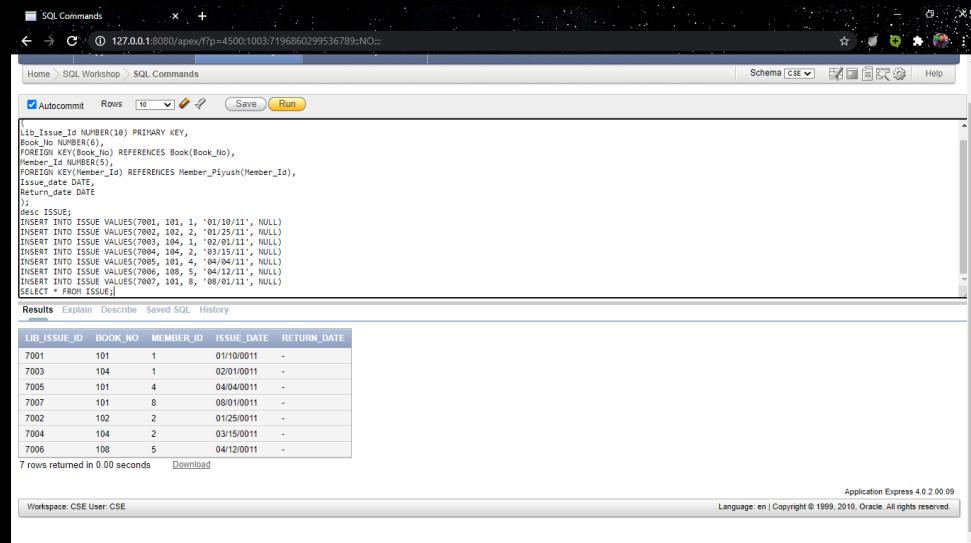
```

desc ISSUE;

INSERT INTO ISSUE VALUES(7001, 101, 1, '01/10/11', NULL)
INSERT INTO ISSUE VALUES(7002, 102, 2, '01/25/11', NULL)
INSERT INTO ISSUE VALUES(7003, 104, 1, '02/01/11', NULL)
INSERT INTO ISSUE VALUES(7004, 104, 2, '03/15/11', NULL)
INSERT INTO ISSUE VALUES(7005, 101, 4, '04/04/11', NULL)
INSERT INTO ISSUE VALUES(7006, 108, 5, '04/12/11', NULL)
INSERT INTO ISSUE VALUES(7007, 101, 8, '08/01/11', NULL)

SELECT * FROM ISSUE;

```



The screenshot shows the Oracle Application Express SQL Workshop interface. The SQL command window contains the provided SQL code. The results pane shows a table with the following data:

LIB_ISSUE_ID	BOOK_NO	MEMBER_ID	ISSUE_DATE	RETURN_DATE
7001	101	1	01/10/0011	-
7003	104	1	02/01/0011	-
7005	101	4	04/04/0011	-
7007	101	8	08/01/0011	-
7002	102	2	01/25/0011	-
7004	104	2	03/15/0011	-
7006	108	5	04/12/0011	-

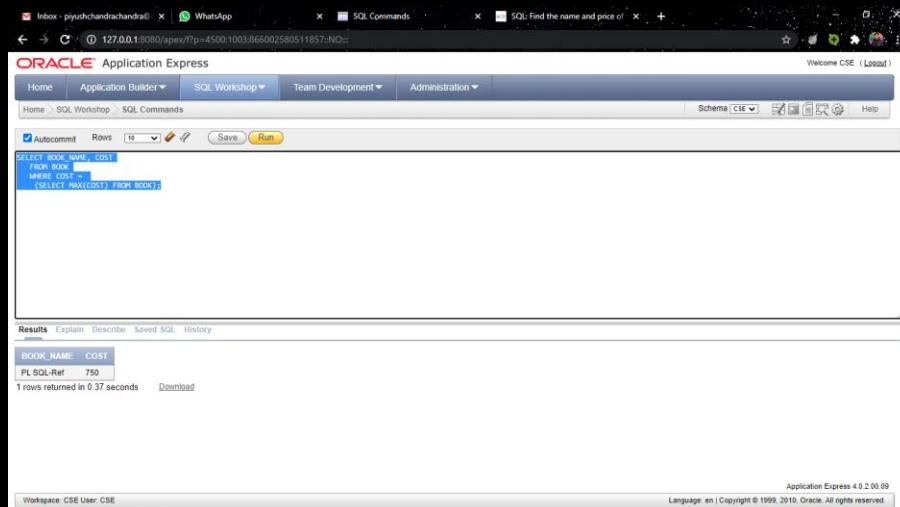
7 rows returned in 0.00 seconds

ASSIGNMENT 3

16/09/2020 – 27/09/2020

1. Retrieve the Name of Book and Cost who has Maximum cost.

➤ SELECT BOOK_NAME, COST
FROM BOOK
WHERE COST =
(SELECT MAX(COST) FROM BOOK);



The screenshot shows the Oracle Application Express interface. In the SQL Commands panel, the following query is entered:

```
SELECT BOOK_NAME, COST
FROM BOOK
WHERE COST =
(SELECT MAX(COST) FROM BOOK);
```

In the Results panel, the output is displayed in a table:

BOOK_NAME	COST
PL SQL-Ref	750

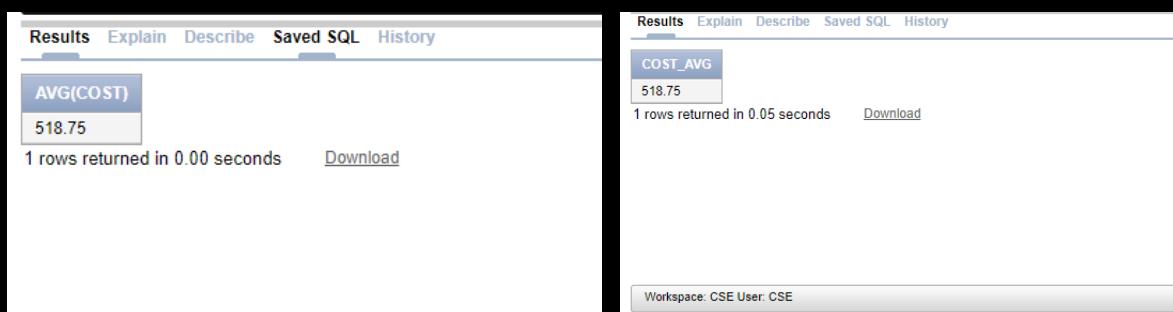
Below the table, it says "1 rows returned in 0.37 seconds".

2. Calculate the Minimum cost, Average cost and Total cost value in BOOKS table and Rename the resulting attributes.

➤ SELECT AVG(COST) AS COST_AVG
FROM BOOK;

SELECT MIN(COST) AS COST_MIN
FROM BOOK;

SELECT SUM(COST) AS COST_TOTAL
FROM BOOK;



The image contains two side-by-side screenshots of Oracle Application Express results pages.

Left Screenshot: Results for the first query (AVG(COST)). The output is:

AVG(COST)
518.75

Below the table, it says "1 rows returned in 0.00 seconds".

Right Screenshot: Results for the second query (MIN(COST)). The output is:

COST_AVG
518.75

Below the table, it says "1 rows returned in 0.05 seconds".

The image contains four separate windows of the Oracle Application Express interface, each displaying a SQL query result:

- Top Left:** Shows the result of the query `SUM(COST)`. The result is 4150. It took 0.07 seconds and has 1 row.
- Top Right:** Shows the result of the query `COST_TOTAL`. The result is 4150. It took 0.00 seconds and has 1 row.
- Bottom Left:** Shows the result of the query `MIN(COST)`. The result is 300. It took 0.01 seconds and has 1 row.
- Bottom Right:** Shows the result of the query `COST_MIN`. The result is 300. It took 0.04 seconds and has 1 row.

3. Retrieve the Name and ID of Members who's issued book between 26th January 2011 and 14th April 2011.

➤ SELECT Member_Piyush.MEMBER_ID, MEMBER_NAME, ISSUE.Issue_Date
FROM Member_Piyush, ISSUE
WHERE Member_Piyush.MEMBER_ID = ISSUE.Member_Id AND Issue_Date BETWEEN
TO_DATE('26-JAN-0011','DD-MON-YYYY') AND TO_DATE('14-APR-0011','DD-MON-YYYY');

The screenshot shows the Oracle Application Express interface with the following details:

- SQL Commands Tab:** Contains the SQL query for retrieving member information based on issue dates.
- Results Tab:** Displays the results of the query, showing four rows of data:

MEMBER_ID	MEMBER_NAME	ISSUE_DATE
5	Sobini Haldar	04/12/0011
1	SAYANTAN SINHA	02/01/0011
2	ABHIRUP SARKAR	03/15/0011
4	Parekh sen	04/04/0011

 The results were returned in 0.02 seconds.

4. Retrieve Book Name, Author Name and Category whose Category is not „OTHERS“.

- SELECT Book_Name, Author_name, Category from BOOK WHERE NOT Category = 'Others';

```

SQL Commands
127.0.0.1:8080/apex/f?p=4500:1003:1360668107660264:NO_
ORACLE Application Express
Home Application Builder SQL Workshop Team Development Administration
Welcome CSE (Logout)
Home > SQL Workshop > SQL Commands
Schema CSE Help
Autocommit Rows 10 Save Run
SELECT AVG(COST) AS COST_AVG
FROM BOOK;
SELECT MIN(COST) AS COST_MIN
FROM BOOK;
SELECT MAX(COST) AS COST_TOTAL
FROM BOOK;

SELECT Member_Piyush.MEMBER_ID, MEMBER_NAME, ISSUE.Issue_Date
FROM Member_Piyush, MEMBER_TO_ISSUE, ISSUE
WHERE Member_Piyush.MEMBER_ID = ISSUE.Member_Id AND Issue_Date BETWEEN TO_DATE('26-JAN-0011','DD-MON-YYYY') AND TO_DATE('14-APR-0011','DD-MON-YYYY');

SELECT Book_Name, Author_name, Category FROM BOOK WHERE NOT Category = 'Others';

SELECT H_MEMBER_ID, H_MEMBER_NAME, I.Issue_Date
FROM H_MEMBER, ISSUE I
WHERE H_MEMBER_ID = I.Member_Id AND I.Issue_Date BETWEEN TO_DATE('26-JAN-2011','DD-MON-YYYY') AND TO_DATE('14-APR-2011','DD-MON-YYYY');

SELECT MEMBER_TO_MEMBER.HAVE FROM MEMBER WHERE MEMBER_ID IN (SELECT Member_Id FROM ISSUE WHERE Issue_Date BETWEEN TO_DATE('26-JAN-2011','DD-MON-YYYY') AND TO_DATE('14-APR-2011','DD-MON-YYYY'));

```

Results

BOOK_NAME	AUTHOR_NAME	CATEGORY
Mastering SQL	Lori	Database
UNIX	Sumitava Das	System
Oracle – Complete Ref	Lori	Database
PL SQL-Ref	Scott Uman	Database
Optics	Ghatal	Science

5 rows returned in 0.07 seconds Download

Application Express 4.0.2.0.09
Language: en | Copyright © 1999, 2010, Oracle. All rights reserved.

5. Retrieve the Book name and Author Name where 5th letter of the Author name is "t".

- SELECT Book_Name, Author_name FROM BOOK WHERE Author_Name LIKE '_____t%';

```

SQL Commands
127.0.0.1:8080/apex/f?p=4500:1003:1360668107660264:NO_
ORACLE Application Express
Home Application Builder SQL Workshop Team Development Administration
Welcome CSE (Logout)
Home > SQL Workshop > SQL Commands
Schema CSE Help
Autocommit Rows 10 Save Run
SELECT AVG(COST) AS COST_AVG
FROM BOOK;
SELECT MIN(COST) AS COST_MIN
FROM BOOK;
SELECT MAX(COST) AS COST_TOTAL
FROM BOOK;

SELECT Member_Piyush.MEMBER_ID, MEMBER_NAME, ISSUE.Issue_Date
FROM Member_Piyush, MEMBER_TO_ISSUE, ISSUE
WHERE Member_Piyush.MEMBER_ID = ISSUE.Member_Id AND Issue_Date BETWEEN TO_DATE('26-JAN-0011','DD-MON-YYYY') AND TO_DATE('14-APR-0011','DD-MON-YYYY');

SELECT Book_Name, Author_name, Category FROM BOOK WHERE NOT Category = 'Others';

SELECT Book_Name, Author_name FROM BOOK WHERE Author_Name LIKE '_____t%';

SELECT H_MEMBER_ID, H_MEMBER_NAME, I.Issue_Date
FROM H_MEMBER, ISSUE I
WHERE H_MEMBER_ID = I.Member_Id AND I.Issue_Date BETWEEN TO_DATE('26-JAN-2011','DD-MON-YYYY') AND TO_DATE('14-APR-2011','DD-MON-YYYY');

SELECT MEMBER_TO_MEMBER.HAVE FROM MEMBER WHERE MEMBER_ID IN (SELECT Member_Id FROM ISSUE WHERE Issue_Date BETWEEN TO_DATE('26-JAN-2011','DD-MON-YYYY') AND TO_DATE('14-APR-2011','DD-MON-YYYY'));

```

Results

BOOK_NAME	AUTHOR_NAME
UNIX	Sumitava Das
PL SQL-Ref	Scott Uman

2 rows returned in 0.01 seconds Download

Application Express 4.0.2.0.09
Language: en | Copyright © 1999, 2010, Oracle. All rights reserved.

6. How many Books are available whose Cost is greater than 350.

- SELECT COUNT(*) FROM BOOK WHERE COST>350;

The screenshot shows the Oracle Application Express interface with a SQL Commands window. The query is:

```
SELECT COUNT(*) FROM BOOK WHERE COST>350;
```

The results show a single row with COUNT(*) = 6.

COUNT(*)
6

1 rows returned in 0.01 seconds

7. How many different Authors name are available in BOOKS table.

- SELECT COUNT(DISTINCT Author_Name) FROM BOOK;

The screenshot shows the Oracle Application Express interface with a SQL Commands window. The query is:

```
SELECT COUNT(DISTINCT Author_Name) FROM BOOK;
```

The results show a single row with COUNT(DISTINCT AUTHOR_NAME) = 7.

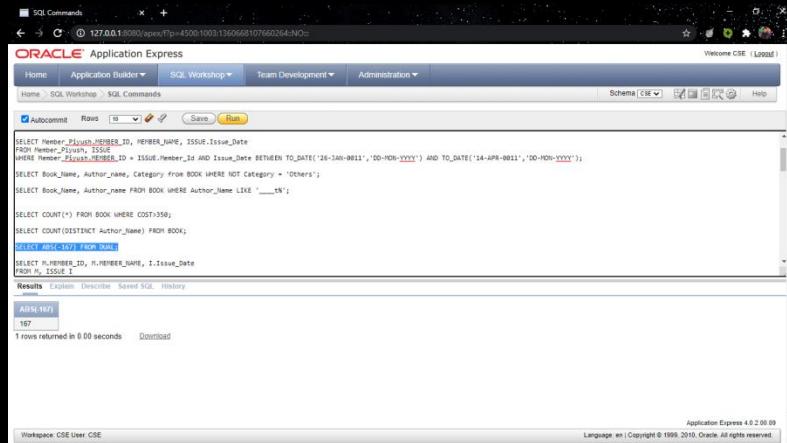
COUNT(DISTINCT AUTHOR_NAME)
7

1 rows returned in 0.01 seconds

8. Calculate the following Numeric functions:

a. What is the absolute value of -167.

- SELECT ABS(-167) FROM DUAL;



The screenshot shows the Oracle Application Express interface with a SQL command window. The query executed is:

```
SELECT Member_Plyush_MEMBER_ID, MEMBER_NAME, ISSUE_Issue_Date
FROM Member_Plyush_ISSUE_I
WHERE Member_Plyush_MEMBER_ID = ISSUE_member_Id AND Issue_date BETWEEN TO_DATE('26-JAN-2011','DD-MON-YYYY') AND TO_DATE('14-APR-2011','DD-MON-YYYY');

SELECT Book_Name, Author_name, Category FROM BOOK WHERE NOT Category = 'Others';

SELECT Book_Name, Author_name FROM BOOK WHERE Author_name LIKE '_____n';

SELECT COUNT(*) FROM BOOK WHERE COST>50;

SELECT COUNT(DISTINCT Author_name) FROM BOOK;

SELECT COUNT(*) FROM DUAL;

SELECT H.Member_ID, H.Member_Name, I.Issue_date
FROM H, ISSUE_I
WHERE H.Member_ID = I.Member_Id AND I.Issue_date BETWEEN TO_DATE('26-JAN-2011','DD-MON-YYYY') AND TO_DATE('14-APR-2011','DD-MON-YYYY');

SELECT MEMBER_ID, MEMBER_NAME FROM MEMBER WHERE MEMBER_ID IN (SELECT Member_Id FROM ISSUE WHERE Issue_date BETWEEN TO_DATE('26-JAN-2011','DD-MON-YYYY') AND TO_DATE('14-APR-2011','DD-MON-YYYY'));

SELECT Book_Name, Author_name, Category FROM BOOK WHERE NOT Category = 'Others';

SELECT Book_Name, Author_name FROM BOOK WHERE Author_name LIKE '_____n';

SELECT COUNT(*) FROM BOOK WHERE COST>50;

SELECT COUNT(DISTINCT Author_name) FROM BOOK;
```

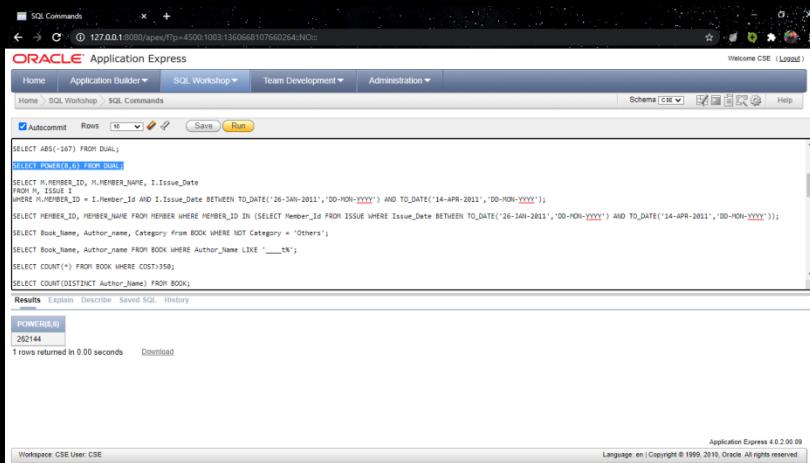
The results pane shows the output:

ANSWER
167

1 rows returned in 0.00 seconds [Download](#)

b. Calculate 8^6 .

- SELECT POWER(8,6) FROM DUAL;



The screenshot shows the Oracle Application Express interface with a SQL command window. The query executed is:

```
SELECT ABS(-167) FROM DUAL;

SELECT POWER(8,6) FROM DUAL;

SELECT H.Member_ID, H.Member_Name, I.Issue_date
FROM H, ISSUE_I
WHERE H.Member_ID = I.Member_Id AND I.Issue_date BETWEEN TO_DATE('26-JAN-2011','DD-MON-YYYY') AND TO_DATE('14-APR-2011','DD-MON-YYYY');

SELECT MEMBER_ID, MEMBER_NAME FROM MEMBER WHERE MEMBER_ID IN (SELECT Member_Id FROM ISSUE WHERE Issue_date BETWEEN TO_DATE('26-JAN-2011','DD-MON-YYYY') AND TO_DATE('14-APR-2011','DD-MON-YYYY'));

SELECT Book_Name, Author_name, Category FROM BOOK WHERE NOT Category = 'Others';

SELECT Book_Name, Author_name FROM BOOK WHERE Author_name LIKE '_____n';

SELECT COUNT(*) FROM BOOK WHERE COST>50;

SELECT COUNT(DISTINCT Author_name) FROM BOOK;
```

The results pane shows the output:

POWER(8,6)
262144

1 rows returned in 0.00 seconds [Download](#)

c. Round up to 2 decimal points (134.56789).

- SELECT ROUND(134.56789,2) FROM DUAL;

The screenshot shows the Oracle Application Express interface. In the SQL Commands window, the following SQL code is entered:

```
SELECT ABS(-167) FROM DUAL;
SELECT POWER(8,6) FROM DUAL;
SELECT ROUND(134.56789,2) FROM DUAL;

SELECT M MEMBER_ID, M.MEMBER_NAME, I.Issue_date
FROM MEMBER M
WHERE M.MEMBER_ID = I.Member_Id AND I.Issue_date BETWEEN TO_DATE('26-JAN-2011','DD-MON-YYYY') AND TO_DATE('14-APR-2011','DD-MON-YYYY');
SELECT MEMBER_ID, MEMBER_NAME FROM MEMBER WHERE MEMBER_ID IN (SELECT Member_Id FROM ISSUE WHERE Issue_date BETWEEN TO_DATE('26-JAN-2011','DD-MON-YYYY') AND TO_DATE('14-APR-2011','DD-MON-YYYY'));
SELECT Book_name, Author_name, Category FROM BOOK WHERE NOT Category = 'Others';
SELECT Book_name, Author_name FROM BOOK WHERE Author_name LIKE '____%';
```

The Results window displays the output of the last query:

ROUND(134.56789,2)
134.57

Below the results, it says "1 rows returned in 0.00 seconds".

d. What is the square root of 144

- SELECT SQRT(144) FROM DUAL;

The screenshot shows the Oracle Application Express interface. In the SQL Commands window, the following SQL code is entered:

```
SELECT ABS(-167) FROM DUAL;
SELECT POWER(8,6) FROM DUAL;
SELECT ROUND(134.56789,2) FROM DUAL;
SELECT SQRT(144) FROM DUAL;

SELECT M MEMBER_ID, M.MEMBER_NAME, I.Issue_date
FROM MEMBER M
WHERE M.MEMBER_ID = I.Member_Id AND I.Issue_date BETWEEN TO_DATE('26-JAN-2011','DD-MON-YYYY') AND TO_DATE('14-APR-2011','DD-MON-YYYY');
SELECT MEMBER_ID, MEMBER_NAME FROM MEMBER WHERE MEMBER_ID IN (SELECT Member_Id FROM ISSUE WHERE Issue_date BETWEEN TO_DATE('26-JAN-2011','DD-MON-YYYY') AND TO_DATE('14-APR-2011','DD-MON-YYYY'));
SELECT Book_name, Author_name, Category FROM BOOK WHERE NOT Category = 'Others';
SELECT Book_name, Author_name FROM BOOK WHERE Author_name LIKE '____%';
```

The Results window displays the output of the last query:

SQRT(144)
12

Below the results, it says "1 rows returned in 0.00 seconds".

e. Floor and Ceil value of 13.15.

- o SELECT FLOOR(13.15), CEIL(13.15) FROM DUAL;

The screenshot shows the Oracle Application Express interface with the following SQL code in the command window:

```
SELECT ABS(-167) FROM DUAL;
SELECT POWER(8,6) FROM DUAL;
SELECT ROUND(134.56789,2) FROM DUAL;
SELECT SQRT(144) FROM DUAL;
SELECT FLOOR(13.15), CEIL(13.15) FROM DUAL;

SELECT M.MEMBER_ID, M.MEMBER_NAME, I.Issue_Date
FROM ISSUE I
WHERE M.MEMBER_ID = I.Member_Id AND I.Issue_Date BETWEEN TO_DATE('26-JAN-2011','DD-MON-YYYY') AND TO_DATE('14-APR-2011','DD-MON-YYYY');
SELECT MEMBER_ID, MEMBER_NAME FROM MEMBER WHERE MEMBER_ID IN (SELECT Member_Id FROM ISSUE WHERE Issue_Date BETWEEN TO_DATE('26-JAN-2011','DD-MON-YYYY') AND TO_DATE('14-APR-2011','DD-MON-YYYY'));
```

The results window displays the output:

FLOOR(13.15)	CEIL(13.15)
13	14

1 rows returned in 0.05 seconds

9. Extract Year, Month, Day from System Date.

➤ SELECT
TO_CHAR(SYSDATE, 'YYYY') YEAR,
TO_CHAR(SYSDATE, 'MON') MONTH,
TO_CHAR(SYSDATE, 'DD') DAY
FROM
DUAL;

The screenshot shows the Oracle Application Express interface with the following SQL code in the command window:

```
SELECT ABS(-167) FROM DUAL;
SELECT POWER(8,6) FROM DUAL;
SELECT ROUND(134.56789,2) FROM DUAL;
SELECT SQRT(144) FROM DUAL;
SELECT FLOOR(13.15), CEIL(13.15) FROM DUAL;

SELECT TO_CHAR(SYSDATE, 'YYYY') YEAR,
       TO_CHAR(SYSDATE, 'MON') MONTH,
       TO_CHAR(SYSDATE, 'DD') DAY
  FROM DUAL;
```

The results window displays the output:

YEAR	MONTH	DAY
2020	SEP	16

1 rows returned in 0.03 seconds

10. What is the greatest value between 4, 5 and 17.

- SELECT GREATEST(4, 5, 17) FROM DUAL;

The screenshot shows the Oracle Application Express interface. In the SQL Commands window, the following SQL code is entered:

```
TO_CHAR(SYSDATE, 'DD') DAY
FROM
DUAL;
SELECT GREATEST(4, 5, 17) FROM DUAL;
```

When run, the results show:

Result
GREATEST(4,5,17) 17

1 rows returned in 0.07 seconds. The application version is shown as 4.0.2.0.09.

11. What is the Least value between '4', '5' and '17' and Express why resulting value of last two queries are same.

- SELECT LEAST(4, 5, 17) FROM DUAL;

The screenshot shows the Oracle Application Express interface. In the SQL Commands window, the following SQL code is entered:

```
TO_CHAR(SYSDATE, 'DD') DAY
FROM
DUAL;
SELECT GREATEST( 4, 5, 17 ) FROM DUAL;
SELECT LEAST( 4, 5, 17 ) FROM DUAL;
```

When run, the results show:

Result
LEAST(4,5,17) 4

1 rows returned in 0.00 seconds. The application version is shown as 4.0.2.0.09.

12. Extract 4 letters from 3th position of this word 'INFOSYS'.

- SELECT SUBSTR('INFOSYS',3,4) "ANSWER"
FROM DUAL;

The screenshot shows the Oracle Application Express interface with the following SQL command in the editor:

```
TO_CHAR( SYSDATE, 'DD' ) DAY
FROM DUAL;
SELECT GREATEST( 4, 5, 17 ) FROM DUAL;
SELECT LEAST( 4, 5, 17 ) FROM DUAL;
SELECT SUBSTR('INFOSYS',3,4) "ANSWER"
FROM DUAL;
```

The results pane shows the output:

ANSWER
FOSY

1 rows returned in 0.06 seconds

13.What is the ASCII value of 'a' and 'S'.

- SELECT ASCII('a'), ASCII('S') from dual;

The screenshot shows the Oracle Application Express interface with the following SQL command in the editor:

```
TO_CHAR( SYSDATE, 'DD' ) DAY
FROM DUAL;
SELECT GREATEST( 4, 5, 17 ) FROM DUAL;
SELECT LEAST( 4, 5, 17 ) FROM DUAL;
SELECT SUBSTR('INFOSYS',3,4) "ANSWER"
FROM DUAL;
```

Below the command, there is another line of code:

```
SELECT ASCII('a'), ASCII('S') From dual;
```

The results pane shows the output:

ASCII('a')	ASCII('S')
97	83

1 rows returned in 0.02 seconds

14.What is Length of this word 'INFOSYS' AND change 'S' with 'T'.

- SELECT REPLACE('INFOSYS','S','T') "Replaced"
FROM DUAL;

The screenshot shows the Oracle Application Express interface. In the SQL Commands window, the following SQL code is entered:

```
TO_CHAR( SYSDATE, 'XXXX' ) YEAR,  
TO_CHAR( SYSDATE, 'MM' ) MONTH,  
TO_CHAR( SYSDATE, 'DD' ) DAY  
FROM DUAL;  
SELECT GREATEST( 4, 5, 17 ) FROM DUAL;  
SELECT LEAST( 4, 5, 17 ) FROM DUAL;  
SELECT SUBSTR('INFOSYS',3,4) "ANSWER"  
FROM DUAL;  
SELECT ASCII('a'), ASCII('S') FROM dual;  
SELECT REPLACE('INFOSYS','S','T') "Replaced"  
FROM DUAL;
```

The results section shows the output:

Replaced
INFOTYT

1 rows returned in 0.00 seconds

15.Retrieve the Names and Address of the Members who belong to Kolkata.

- SELECT Member_Name, Member_address from Member_Piyush WHERE Member_address = 'Kolkata';

The screenshot shows the Oracle Application Express interface. In the SQL Commands window, the following SQL code is entered:

```
TO_CHAR( SYSDATE, 'MONTH' )  
TO_CHAR( SYSDATE, 'DD' ) DAY  
FROM DUAL;  
SELECT GREATEST( 4, 5, 17 ) FROM DUAL;  
SELECT LEAST( 4, 5, 17 ) FROM DUAL;  
SELECT SUBSTR('INFOSYS',3,4) "ANSWER"  
FROM DUAL;  
SELECT ASCII('a'), ASCII('S') FROM dual;  
SELECT REPLACE('INFOSYS','S','T') "Replaced"  
FROM DUAL;  
SELECT Member_Name, Member_address from Member_Piyush WHERE Member_address = 'Kolkata';
```

The results section shows the output:

MEMBER_NAME	MEMBER_ADDRESS
Suparna Biswas	Kolkata
Arpita Roy	Kolkata

2 rows returned in 0.02 seconds

16. Retrieve the Name of Books, where Cost prices are between 300 and 500.

➤ SELECT Book_Name
FROM BOOK
WHERE Cost BETWEEN '300' AND '500';

The screenshot shows the Oracle Application Express interface. The SQL Commands page displays the following SQL code:

```
SELECT GREATEST(4, 5, 17) FROM DUAL;
SELECT LEAST(4, 5, 17) FROM DUAL;
SELECT SUBSTR('INFOSYS',3,4) "ANSWER"
FROM DUAL;
SELECT ASCII('a'), ASCII('S') FROM dual;
SELECT REPLACE('INFOSYS','S','T') "Replaced"
FROM DUAL;
SELECT Member_Name, Member_address From Member_Piyush WHERE Member_address = 'Kolkata';
SELECT Book_Name
FROM BOOK
WHERE Cost BETWEEN '300' AND '500';
```

The results pane shows a single row of data:

BOOK_NAME
Let us C

4 rows returned in 0.01 seconds [Download](#)

17. List the Name of the Members whose Membership type is “HALF YEARLY”.

➤ SELECT Member_Name
FROM Member_Piyush
WHERE Membership_type = 'Half Yearly';

The screenshot shows the Oracle Application Express interface. The SQL Commands page displays the following SQL code:

```
SELECT ASCII('a'), ASCII('S') FROM dual;
SELECT REPLACE('INFOSYS','S','T') "Replaced"
FROM DUAL;
SELECT Member_Name, Member_address From Member_Piyush WHERE Member_address = 'Kolkata';
SELECT Book_Name
FROM BOOK
WHERE Cost BETWEEN '300' AND '500';
SELECT Member_Name
FROM Member_Piyush
WHERE Membership_type = 'Half Yearly';
```

The results pane shows three rows of data:

MEMBER_NAME
Suparna Biswas
Arpita Roy
Parech sen

3 rows returned in 0.00 seconds [Download](#)

18. List the Name of the Members who open their account in the year of 2011.

➤ SELECT *
FROM Member_Piyush
WHERE Acc_Open_Date>('01/01/2011');

The screenshot shows the Oracle Application Express interface. The SQL command entered is:

```
SELECT REPLACE('THEGYS','S','T') "Replaced"  
FROM DUAL;  
  
SELECT Member_Name, Member_address FROM Member_Piyush WHERE Member_address = 'Kolkata';  
  
SELECT Book_Name  
FROM BOOK  
WHERE Cost BETWEEN '300' AND '500';  
  
SELECT Member_Name  
FROM Member_Piyush  
WHERE Membership_Type = 'Half Yearly';  
  
SELECT *  
FROM Member_Piyush  
WHERE Acc_Open_Date>'01/01/2011';
```

The results table shows the following data:

MEMBER_ID	MEMBER_NAME	MEMBER_ADDRESS	ACC_OPEN_DATE	MEMBERSHIP_TYPE	FEE_PAID	MAX_BOOKS_ALLOWED	PENALTY_AMOUNT
5	Sohni Halder	Birbhum	04/11/2011	Lifetime	2000	6	10
6	Supama Biswas	Kolkata	04/12/2011	Half Yearly	700	1	0
7	Suranjana Basu	Purulia	06/30/2011	Annual	1400	3	50
8	Amita Roy	Kolkata	07/31/2011	Half Yearly	700	1	0
2	ABHIRUP SARKAR	KOLKATA	01/19/2011	Annual	1400	3	0
3	Ritesh Bhunia	Gujarat	02/20/2011	Quarterly	350	2	100
4	Parekh sen	Tripura	03/21/2011	Half Yearly	700	1	200

7 rows returned in 0.00 seconds [Download](#)

19. Retrieve the Penalty Amount of the Members who has taken the book “LET US C”.

➤ SELECT Member_Piyush.Penalty_Amount
FROM Member_Piyush,BOOK
WHERE BOOK.Book_Name = 'Let us C';

The screenshot shows the Oracle Application Express interface. The SQL command entered is:

```
SELECT Book_Name  
FROM BOOK  
WHERE Cost BETWEEN '300' AND '500';  
  
SELECT Member_Name  
FROM Member_Piyush  
WHERE Membership_Type = 'Half Yearly';  
  
SELECT Member_Piyush  
WHERE Acc_Open_Date>'01/01/2011';  
  
SELECT Member_Piyush.Penalty_Amount  
FROM Member_Piyush, BOOK  
WHERE BOOK.Book_Name = 'Let us C';
```

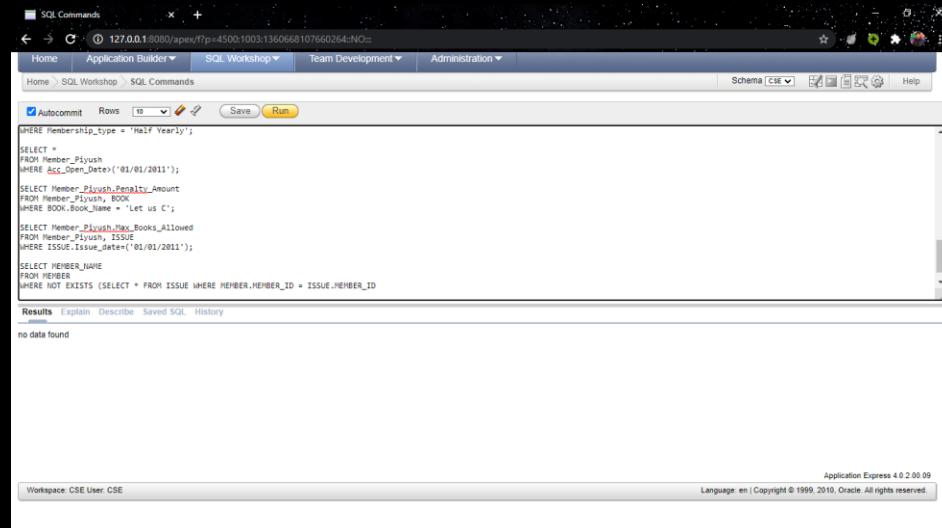
The results table shows the following data:

PENALTY_AMOUNT
10
0
50
0
50
0
100
200

8 rows returned in 0.00 seconds [Download](#)

20. Retrieve the no of Max books allowed to a Member, who has issued books on January.

➤ SELECT Member_Piyush.Max_Books_Allowed
FROM Member_Piyush, ISSUE
WHERE ISSUE.Issue_date='01/01/2011');



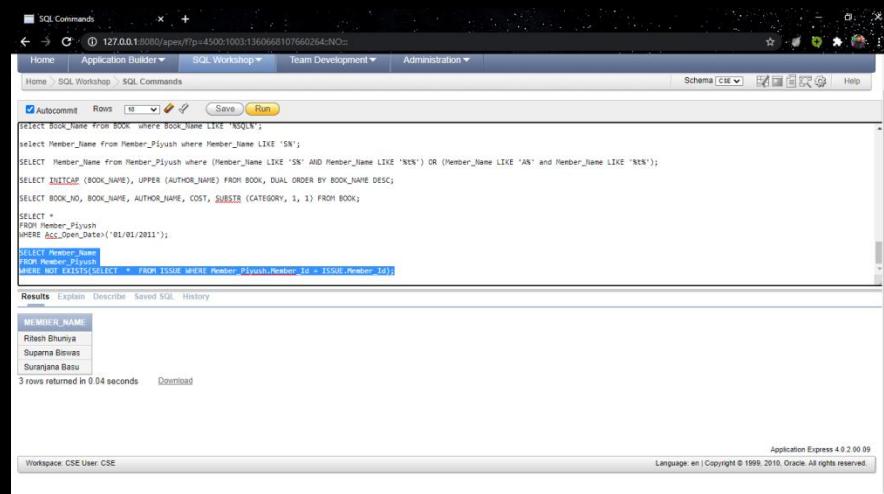
```
SQL Commands
SELECT * FROM Member_Piyush WHERE Membership_type = 'Half Yearly';
SELECT * FROM Member_Piyush WHERE Acc_Open_Date > ('01/01/2011');
SELECT Member_Piyush.Penalty_Amount FROM Member_Piyush, BOOK
WHERE BOOK.Book_Name = 'Let us C';
SELECT Member_Piyush.Max_Books_Allowed FROM Member_Piyush, ISSUE
WHERE ISSUE.Issue_date='01/01/2011';
SELECT MEMBER_NAME FROM MEMBER
WHERE NOT EXISTS (SELECT * FROM ISSUE WHERE MEMBER_MEMBER_ID = ISSUE_MEMBER_ID)

Results Explain Describe Saved SQL History
no data found

Application Express 4.0.2.00.09
Language: en | Copyright © 1999, 2010, Oracle. All rights reserved.
Workspace: CSE User: CSE
```

21. Give the Names of the Members who have not issued any books.

➤ SELECT Member_Name
FROM Member_Piyush
WHERE NOT EXISTS(SELECT * FROM ISSUE WHERE Member_Piyush.Member_Id =
ISSUE.Member_Id);



```
SQL Commands
SELECT Book_Name FROM Book WHERE Book_Name LIKE '%S%';
SELECT Member_Name FROM Member_Piyush WHERE Member_Id LIKE 'S%';
SELECT Member_Name FROM Member_Piyush WHERE (Member_Name LIKE 'SK' AND Member_Name LIKE 'SK%') OR (Member_Name LIKE 'AS' AND Member_Name LIKE 'AS%');
SELECT INITCAP(BOOK_NAME), UPPER(AUTHOR_NAME) FROM BOOK, DUAL ORDER BY BOOK_NAME DESC;
SELECT BOOK_NO, BOOK_NAME, AUTHOR_NAME, COST, SUBSTR(CATEGORY, 1, 1) FROM BOOK;
SELECT *
FROM Member_Piyush
WHERE Acc_Open_Date > ('01/01/2011');

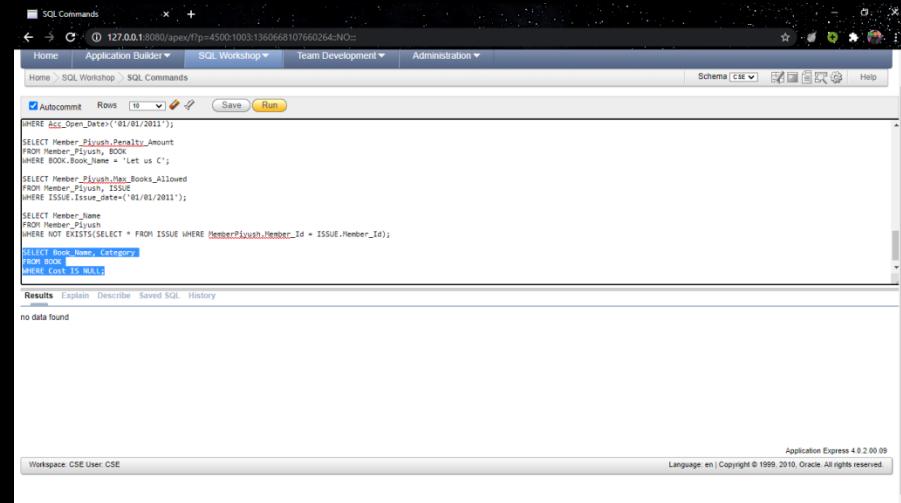
SELECT Member_Name
FROM MEMBER
WHERE NOT EXISTS(SELECT * FROM ISSUE WHERE Member_Piyush.Member_Id = ISSUE.Member_Id)

Results Explain Describe Saved SQL History
MEMBER_NAME
Ritesh Bhunia
Suparna Biswas
Suranjan Basu
3 rows returned in 0.04 seconds Download

Application Express 4.0.2.00.09
Language: en | Copyright © 1999, 2010, Oracle. All rights reserved.
Workspace: CSE User: CSE
```

22. Give the Name and Category of the books whose cost is not recorded.

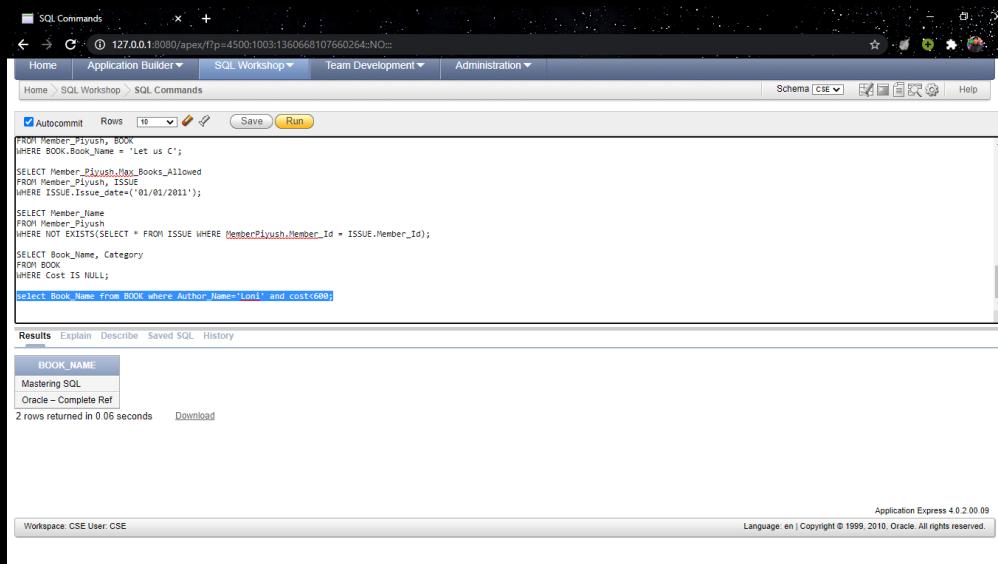
➤ SELECT Book_Name, Category
FROM BOOK
WHERE Cost IS NULL;



```
Autocommit Rows 10 Save Run
SELECT Book_Name, Category
FROM BOOK
WHERE Cost IS NULL;
no data found
```

23. List all the books that are written by Author „“Loni”“ and has Price less than 600.

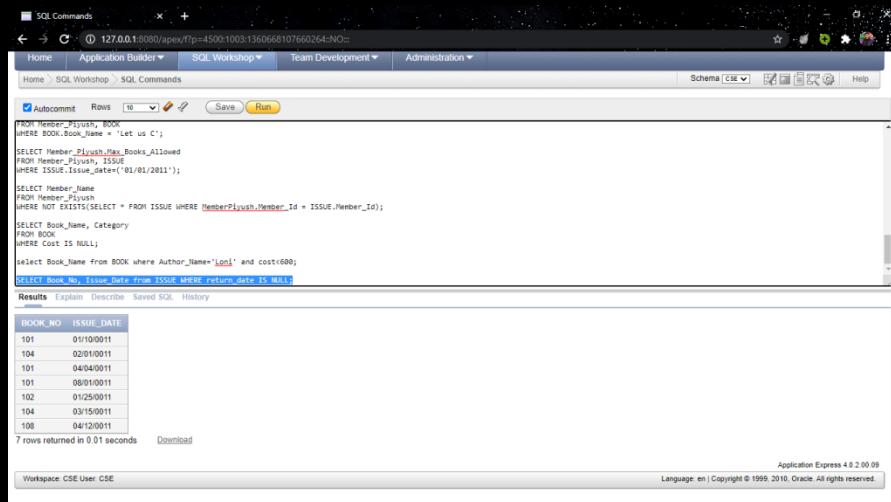
➤ SELECT Book_Name from BOOK where Author_Name='Loni' and cost<600;



```
Autocommit Rows 10 Save Run
SELECT Book_Name
FROM BOOK
WHERE Author_Name='Loni' and cost<600;
BOOK_NAME
Mastering SQL
Oracle - Complete Ref
2 rows returned in 0.00 seconds Download
```

24. List the Issue details for the Books that are not returned yet.

- SELECT Book_No, Issue_Date from ISSUE WHERE return_date IS NULL;



The screenshot shows the Oracle Application Express SQL Workshop interface. The query window contains the following SQL code:

```
SELECT Book_No, Issue_Date
FROM ISSUE
WHERE return_date IS NULL;
```

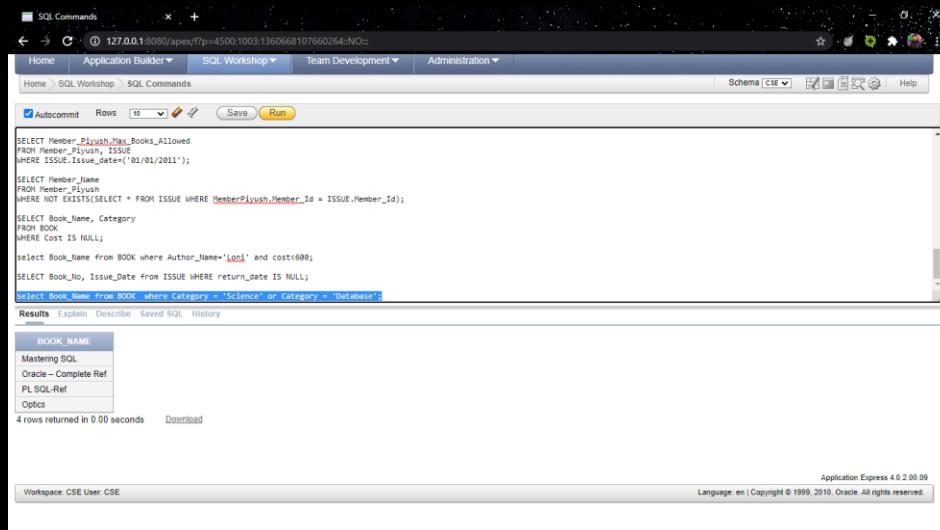
The results section displays a table with two columns: BOOK_NO and ISSUE_DATE. The data is as follows:

BOOK_NO	ISSUE_DATE
101	05/10/2011
104	02/01/2011
101	04/04/2011
101	08/01/2011
102	01/25/2011
104	03/15/2011
108	04/12/2011

7 rows returned in 0.01 seconds

25. List all the Books that belong to any one of the following categories Science, Database.

- select Book_Name from BOOK where Category = 'Science' or Category = 'Database';



The screenshot shows the Oracle Application Express SQL Workshop interface. The query window contains the following SQL code:

```
SELECT Book_Name
FROM BOOK
WHERE Category = 'Science' OR Category = 'Database';
```

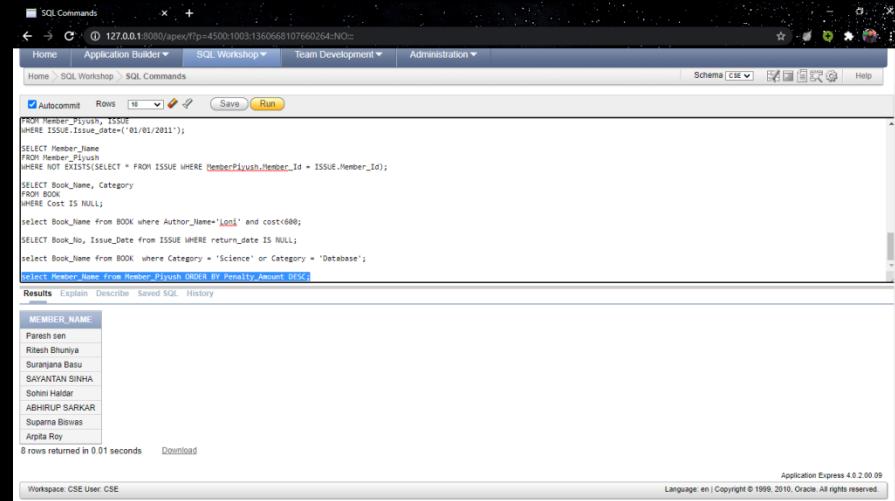
The results section displays a table with a single column: BOOK_NAME. The data is as follows:

BOOK_NAME
Mastering SQL
Oracle - Complete Ref
PL SQL-Ref
Optics

4 rows returned in 0.00 seconds

26. List all the Members in the descending order of Penalty due on them.

- select Member_Name from Member_Piyush ORDER BY Penalty_Amount DESC;



The screenshot shows the Oracle SQL Workshop interface. The SQL Commands tab is active, displaying the following query:

```
FROM Member_Piyush_ISSUE
WHERE ISSUE.Issue_date='01/01/2011';
SELECT Member_Name
FROM Member_Piyush
WHERE NOT EXISTS(SELECT * FROM ISSUE WHERE MemberPiyush.Member_Id = ISSUE.Member_Id);
SELECT Book_Name, Category
FROM BOOK
WHERE Cost IS NULL;
select Book_Name from BOOK where Author_Name='LonI' and cost<600;
SELECT Book_No, Issue_Date from ISSUE WHERE return_date IS NULL;
select Book_Name from BOOK where Category = 'Science' or Category = 'Database';
select Member_Name from Member_Piyush ORDER BY Penalty_Amount DESC;
```

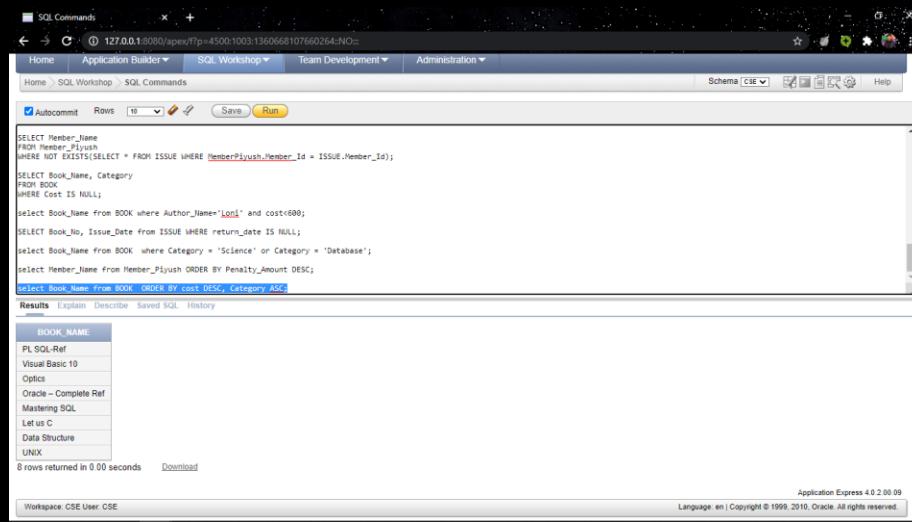
The Results tab shows the output:

MEMBER_NAME
Parekh san
Ritesh Bhuniya
Suranjana Basu
SAYANTAN SINHA
Sohini Halder
ABHIRUP SARKAR
Suparna Biswas
Arpita Roy

8 rows returned in 0.01 seconds [Download](#)

27. List all the Books in ascending order of category and descending order of price.

- select Book_Name from BOOK ORDER BY cost DESC, Category ASC;



The screenshot shows the Oracle SQL Workshop interface. The SQL Commands tab is active, displaying the following query:

```
SELECT Member_Name
FROM Member_Piyush
WHERE NOT EXISTS(SELECT * FROM ISSUE WHERE MemberPiyush.Member_Id = ISSUE.Member_Id);
SELECT Book_Name, Category
FROM BOOK
WHERE Cost IS NULL;
select Book_Name from BOOK where Author_Name='LonI' and cost<600;
SELECT Book_No, Issue_Date from ISSUE WHERE return_date IS NULL;
select Book_Name from BOOK where Category = 'Science' or Category = 'Database';
select Member_Name from Member_Piyush ORDER BY Penalty_Amount DESC;
select Book_Name from BOOK ORDER BY cost DESC, Category ASC;
```

The Results tab shows the output:

BOOK_NAME
PL SQL Ref
Visual Basic 10
Optics
Oracle - Complete Ref
Mastering SQL
Let us C
Data Structure
UNIX

8 rows returned in 0.00 seconds [Download](#)

28. List all the Books that contain word „SQL“ in the Name of the Book.

- select Book_Name from BOOK where Book_Name LIKE '%SQL%';

The screenshot shows the Oracle Application Express interface with the following details:

- URL:** 127.0.0.1:8080/apex/f?p=4500:1003:1360668107660264::NO::
- Tab:** SQL Commands
- Code:**

```
SELECT Book_Name, Category
FROM BOOK
WHERE Book_Name LIKE '%SQL%';
```
- Results:** A table titled "BOOK_NAME" displays one row: "Mastering SQL".
- Bottom Status Bar:** Application Express 4.0.2.00.09, Language: en | Copyright © 1999, 2010, Oracle. All rights reserved.

29. List all the Members whose Name starts with S.

- select Member_Name from Member_Piyush where Member_Name LIKE 'S%';

The screenshot shows the Oracle Application Express interface with the following details:

- URL:** 127.0.0.1:8080/apex/f?p=4500:1003:1360668107660264::NO::
- Tab:** SQL Commands
- Code:**

```
SELECT Member_Name
FROM Member_Piyush
WHERE Member_Name LIKE 'S%';
```
- Results:** A table titled "MEMBER_NAME" displays four rows: Sohini Halder, Supama Biswas, Suranjana Basu, and SAYANTAN SINHA.
- Bottom Status Bar:** Application Express 4.0.2.00.09, Language: en | Copyright © 1999, 2010, Oracle. All rights reserved.

30. List all the Members whose Name starts with S or A and contains letter T in it.

- SELECT Member_Name from Member_Piyush where (Member_Name LIKE 'S%' AND Member_Name LIKE '%t%') OR (Member_Name LIKE 'A%' and Member_Name LIKE '%t%');

The screenshot shows the Oracle Application Express SQL Workshop interface. The SQL Commands tab is active, displaying the following query:

```
select Member_Name from Member_Piyush ORDER BY Penalty_Amount DESC;
select Book_Name from BOOK ORDER BY cost DESC, Category ASC;
select Book_Name from BOOK where Book_Name LIKE '%SQL%';
select Member_Name from Member_Piyush where Member_Name LIKE 'S%';
SELECT INITCAP(BOOK_NAME), UPPER(AUTHOR_NAME) FROM BOOK, DUAL ORDER BY BOOK_NAME DESC;
SELECT BOOK_ID, BOOK_NAME, AUTHOR_NAME, COST, SUBSTR(CATEGORY, 1, 1) FROM BOOK;
SELECT *
FROM Member_Piyush
WHERE Acc_Open_Date > ('01/01/2011');

Results Explain Describe Saved SQL History
```

The results pane shows a single row:

MEMBER_NAME
Amita Roy

1 rows returned in 0.06 seconds [Download](#)

Application Express 4.0.2.00.09
Language: en | Copyright © 1999-2010, Oracle. All rights reserved.

31. List the Entire Book name in INIT CAP and Author Name in UPPER case in the descending order of the Book Name.

- SELECT INITCAP (BOOK_NAME), UPPER (AUTHOR_NAME) FROM BOOKS, DUAL ORDER BY BOOK_NAME DESC;

The screenshot shows the Oracle Application Express SQL Workshop interface. The SQL Commands tab is active, displaying the following query:

```
select Book_Name from BOOK where Author_Name='LonI' and cost<600;
SELECT Book_No, Issue_Date from ISSUE WHERE return_date IS NULL;
select Book_Name from BOOK where Category = 'Science' or Category = 'Database';
select Member_Name from Member_Piyush ORDER BY Penalty_Amount DESC;
select Book_Name from BOOK ORDER BY cost DESC, Category ASC;
select Book_Name from BOOK where Book_Name LIKE '%SQL%';
select Member_Name from Member_Piyush where Member_Name LIKE 'S%';
select Member_Name from Member_Piyush where (Member_Name LIKE 'S%' and Member_Name LIKE 't%') or (Member_Name LIKE 'A%' and Member_Name LIKE 't%');
SELECT INITCAP(BOOK_NAME), UPPER(AUTHOR_NAME) FROM BOOK, DUAL ORDER BY BOOK_NAME DESC;
```

The results pane shows the following data:

INITCAP(BOOK_NAME)	UPPER(AUTHOR_NAME)
Visual Basic 10	BPB
Unix	SUMITAVA DAS
PI Sig-Ref	SCOTT URMAN
Oracle - Complete Ref	LONI
Optics	GHATAK
Mastering Sql	LONI
Let Us C	DENIS RITCHIE
Data Structure	G.S. BALUJA

8 rows returned in 0.02 seconds [Download](#)

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32. List the data in the book table with category data displayed as „D“ for Database, „S“ for Science, „R“ for RDBMS and „O“ for all the others.

➤ SELECT BOOK_NO, BOOK_NAME, AUTHOR_NAME, COST, SUBSTR(CATEGORY, 1, 1) FROM BOOK;

```

SQL Commands
Home Application Builder SQL Workshop Team Development Administration
Home > SQL Workshop SQL Commands
Autocommit Rows 19 Save Run
SELECT Book_No, Issue_Date FROM ISSUE WHERE return_date IS NULL;
select Book_Name from BOOK where Category = 'Science' or Category = 'Database';
select Member_Name from Member_Piyush ORDER BY Penalty_Amount DESC;
select Book_Name from BOOK ORDER BY cost DESC, Category ASC;
select Book_Name from BOOK where Book_Name LIKE '%SQL%';
select Book_Name from Member_Piyush where Member_Name LIKE 'SN%';
select Member_Name from Member_Piyush where (Member_Name LIKE 'SN%' and Member_Name LIKE 'Ntn') or (Member_Name LIKE 'AN%' and Member_Name LIKE 'Ntn');
SELECT INITCAP(BOOK_NAME), UPPER(AUTHOR_NAME) FROM BOOK, DUAL ORDER BY BOOK_NAME DESC;
SELECT BOOK_NO, BOOK_NAME, AUTHOR_NAME, COST, SUBSTR(CATEGORY, 1, 1) FROM BOOK;

```

BOOK_NO	BOOK_NAME	AUTHOR_NAME	COST	SUBSTR(CATEGORY,1,1)
101	Let us C	Denis Ritchie	450	O
103	Visual Basic 10	BPB	700	O
104	Mastering SQL	Loni	450	D
106	UNIX	Sumtava Das	300	S
108	Data Structure	G.S. Baliga	350	O
102	Oracle - Complete Ref	Loni	550	D
105	PL SQL-Ref	Scott Uman	750	D
107	Optics	Ghatak	600	S

8 rows returned in 0.00 seconds Download

Workspace: CSE User: CSE Application Express 4.0.2.00.09 Language: en | Copyright © 1999, 2010, Oracle. All rights reserved.

33. List all the Members that became the Member in the year 2011.

➤ SELECT *
FROM Member_Piyush
WHERE Acc_Open_Date>'01/01/2011';

```

SQL Commands
Home Application Builder SQL Workshop Team Development Administration
Home > SQL Workshop SQL Commands
Autocommit Rows 19 Save Run
select Member_Name from Member_Piyush ORDER BY Penalty_Amount DESC;
select Book_Name from BOOK ORDER BY cost DESC, Category ASC;
select Book_Name from BOOK where Book_Name LIKE '%SQL%';
select Member_Name from Member_Piyush where Member_Name LIKE 'SN%';
select Member_Name from Member_Piyush where (Member_Name LIKE 'SN%' and Member_Name LIKE 'Ntn') or (Member_Name LIKE 'AN%' and Member_Name LIKE 'Ntn');
SELECT INITCAP(BOOK_NAME), UPPER(AUTHOR_NAME) FROM BOOK, DUAL ORDER BY BOOK_NAME DESC;
SELECT BOOK_NO, BOOK_NAME, AUTHOR_NAME, COST, SUBSTR(CATEGORY, 1, 1) FROM BOOK;
SELECT *
FROM Member_Piyush
WHERE Acc_Open_Date>'01/01/2011';

```

MEMBER_ID	MEMBER_NAME	MEMBER_ADDRESS	ACC_OPEN_DATE	MEMBERSHIP_TYPE	FEE_PAID	MAX_BOOKS_ALLOWED	PENALTY_AMOUNT
5	Sohni Helder	Birbhum	04/11/2011	Lifetime	2000	8	10
6	Superna Biswas	Kolkata	04/12/2011	Half Yearly	700	1	0
7	Surajana Basu	Punjab	06/30/2011	Annual	1400	3	50
8	Apita Roy	Kolkata	07/31/2011	Half Yearly	700	1	0
2	ABHIRUP SARKAR	KOLKATA	01/19/2011	Annual	1400	3	0
3	Ritesh Bhunuya	Gujarat	02/20/2011	Quarterly	350	2	100
4	Priyanshu Tripathi	Tripura	03/21/2011	Half Yearly	700	1	200

7 rows returned in 0.00 seconds Download

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