```sql
CREATE TABLE MEMBER_SHUBHAM (MEMBER_ID NUMBER(5) PRIMARY KEY, MEMBER_NAME
VARCHAR2(30) NOT NULL, 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_SHUBHAM;


ALTER TABLE MEMBER_SHUBHAM ADD CONSTRAINT N1 CHECK (MEMBERSHIP_TYPE IN
('LIFETIME','ANNUAL','HALF YEARLY','QUARTERLY'));

ALTER TABLE MEMBER_SHUBHAM ADD CONSTRAINT N2 CHECK (MAX_BOOKS_ALLOWED < 7);

ALTER TABLE MEMBER_SHUBHAM ADD CONSTRAINT N3 CHECK (PENALTY_AMOUNT<1000);


DESC MEMBER_SHUBHAM;


INSERT INTO MEMBER_SHUBHAM VALUES(1,'SAYANTAN SINHA', 'PUNE', '10-DEC-10', 'LIFETIME',
2000, 6, 50);

INSERT INTO MEMBER_SHUBHAM VALUES(2,'ABHIRUP SARKAR', 'KOLKATA', '19-JAN-11', 'ANNUAL',
1400, 3, 0);

INSERT INTO MEMBER_SHUBHAM VALUES(3,'RITESH BHUNIYA', 'GUJRAT', '20-FEB-11', 'QUARTERLY',
350, 2, 200);

INSERT INTO MEMBER_SHUBHAM VALUES(4,'PARESH SEN', 'TRIPURA', '21-MAR-11', 'HALF YEARLY',
700, 1, 150);

INSERT INTO MEMBER_SHUBHAM VALUES(5,'SOHINI HALDER', 'BIRBHUM', '11-APR-11', 'LIFETIME',
2000, 6, 10);

INSERT INTO MEMBER_SHUBHAM VALUES(6,'SUPARNA BISWAS', 'KOLKATA', '12-APR-11', 'HALF
YEARLY', 700, 1, 0);

INSERT INTO MEMBER_SHUBHAM VALUES(7,'SUJAN BASE', 'PURILIA', '30-JUNE-11', 'ANNUAL',
1000,3, 50);

INSERT INTO MEMBER_SHUBHAM VALUES(8,'ARPITA PAL', 'KOLKATA', '31-JULY-11', 'HALF YEARLY',
700, 1, 0);


SELECT* FROM MEMBER_SHUBHAM;


CREATE TABLE BOOKS_SHUBHAM (BOOK_NO NUMBER(6) PRIMARY KEY, BOOK_NAME
VARCHAR2(30) NOT NULL, AUTHOR_NAME VARCHAR2(30), COST NUMBER(7,2), CATEGORY
CHAR(10));

ALTER TABLE BOOKS_SHUBHAM ADD CONSTRAINT X3 PRIMARY KEY(BOOK_NO);
```

DESC BOOKS_SHUBHAM;

ALTER TABLE BOOKS_SHUBHAM ADD CONSTRAINT X1 CHECK (CATEGORY IN ('SCIENCE','DATABASE','SYSTEM','OTHERS'));

CREATE TABLE ISSUE_SHUBHAM (LIB_ISSUE_ID NUMBER(10) PRIMARY KEY, BOOK_NO NUMBER(6), MEMBER_ID NUMBER(5), ISSUE_DATE DATE, RETURN_DATE DATE);

ALTER TABLE ISSUE_SHUBHAM ADD CONSTRAINT X2 FOREIGN KEY(BOOK_NO) REFERENCES BOOKS_SHUBHAM(BOOK_NO);

DESC ISSUE_SHUBHAM;

INSERT INTO BOOKS_SHUBHAM VALUES(101, 'LET US C', 'DENIS RITCHIE', 450, 'OTHERS');

INSERT INTO BOOKS_SHUBHAM VALUES(102, 'ORACLE-COMPLETE REF', 'LONI', 550, 'DATABASE');

INSERT INTO BOOKS_SHUBHAM VALUES(103, 'VISUAL BASIC 10', 'BPB', 700, 'OTHERS');

INSERT INTO BOOKS_SHUBHAM VALUES(104, 'MASTERING SQL', 'LONI', 200, 'DATABASE');

INSERT INTO BOOKS_SHUBHAM VALUES(105, 'PL SQL-REF', 'SCOTT URMAN', 350, 'DATABASE');

INSERT INTO BOOKS_SHUBHAM VALUES(106, 'UNIX', 'SUMITAVA DAS', 400, 'SYSTEM');

INSERT INTO BOOKS_SHUBHAM VALUES(107, 'OPTICS', 'GHATAK', 500, 'SCIENCE');

INSERT INTO BOOKS_SHUBHAM VALUES(108, 'DARA STRUCTURE', 'G.S BALUJA', 650, 'OTHERS');

SELECT* FROM BOOKS_SHUBHAM;

INSERT INTO ISSUE_SHUBHAM(LIB_ISSUE_ID, BOOK_NO, MEMBER_ID, ISSUE_DATE) VALUES(7001, 101, 1, '10-JAN-11');

INSERT INTO ISSUE_SHUBHAM(LIB_ISSUE_ID, BOOK_NO, MEMBER_ID, ISSUE_DATE) VALUES(7002, 102, 2, '25-JAN-11');

INSERT INTO ISSUE_SHUBHAM(LIB_ISSUE_ID, BOOK_NO, MEMBER_ID, ISSUE_DATE) VALUES(7003, 104, 1, '1-FEB-11');

INSERT INTO ISSUE_SHUBHAM(LIB_ISSUE_ID, BOOK_NO, MEMBER_ID, ISSUE_DATE) VALUES(7004, 104, 2, '15-MAR-11');

INSERT INTO ISSUE_SHUBHAM(LIB_ISSUE_ID, BOOK_NO, MEMBER_ID, ISSUE_DATE) VALUES(7005, 101, 4, '04-APR-11');

INSERT INTO ISSUE_SHUBHAM(LIB_ISSUE_ID, BOOK_NO, MEMBER_ID, ISSUE_DATE) VALUES(7006, 108, 5, '12-APR-11');

INSERT INTO ISSUE_SHUBHAM(LIB_ISSUE_ID, BOOK_NO, MEMBER_ID, ISSUE_DATE) VALUES(7007, 101, 8, '1-AUG-11');

```sql
INSERT INTO ISSUE_SHUBHAM(LIB_ISSUE_ID, BOOK_NO, MEMBER_ID, ISSUE_DATE) VALUES(7007, 201, 8, '1-AUG-11');

SELECT* FROM ISSUE_SHUBHAM;


SELECT BOOK_NAME, COST FROM BOOKS_SHUBHAM WHERE COST=(SELECT MAX(COST) FROM BOOKS_SHUBHAM);


SELECT MIN(COST) AS Minimum,AVG(COST) AS Average,sum(COST) AS sum FROM BOOKS_SHUBHAM;


SELECT MEMBER_ID, MEMBER_NAME FROM MEMBER_SHUBHAM WHERE MEMBER_ID IN (SELECT MEMBER_ID FROM ISSUE_SHUBHAM WHERE ISSUE_DATE BETWEEN '26-JAN-2011' AND '14-APR-2011');


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


SELECT Book_Name, Author_name FROM BOOKS_SHUBHAM WHERE Author_name LIKE '____T%';


SELECT COUNT(*) AS Number_of_Books FROM BOOKS_SHUBHAM WHERE Cost>350;


SELECT Count(UNIQUE(Author_name)) FROM BOOKS_SHUBHAM;


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); SELECT CEIL(13.15) FROM Dual;
```

```sql
SELECT EXTRACT (YEAR FROM sysdate) AS YEAR, EXTRACT(MONTH FROM sysdate) AS MONTH ,
EXTRACT (DAY FROM sysdate) AS DAY FROM Dual;


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


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


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


SELECT ASCII('a'),ASCII('S') FROM DUAL;


SELECT LENGTH('INFOSYS'), REPLACE('INFOSYS','S','T') FROM DUAL;


SELECT Member_Name, Member_address FROM MEMBER where Member_address='Kolkata';


SELECT Book_Name FROM BOOKS_SHUBHAM WHERE Cost BETWEEN 300 AND 500;


SELECT Member_Name FROM MEMBER_SHUBHAM WHERE Membership_type='HALF YEARLY';


SELECT Member_Name FROM MEMBER_SHUBHAM WHERE EXTRACT(YEAR FROM
Acc_Open_Date)='2011';


SELECT Penalty_Amount FROM MEMBER_SHUBHAM WHERE Member_Id IN (SELECT Member_Id
FROM ISSUE_SHUBHAM WHERE Book_No IN (SELECT Book_No FROM BOOKS_SHUBHAM WHERE
Book_Name='LET US C'));


SELECT Max_Books_Allowed FROM MEMBER_SHUBHAM WHERE Member_Id IN (SELECT Member_Id
FROM ISSUE_SHUBHAM WHERE EXTRACT(MONTH FROM Issue_Date) IN'01');


SELECT Member_Name FROM MEMBER_SHUBHAM WHERE Member_Id NOT IN(SELECT Member_Id
FROM ISSUE_SHUBHAM);


SELECT Book_Name,Category FROM BOOKS_SHUBHAM WHERE Cost=NULL;
```

```sql
SELECT Book_Name FROM BOOKS_SHUBHAM WHERE Author_name='LONI' AND Cost<600;


SELECT * FROM ISSUE_SHUBHAM WHERE Return_Date IS NULL;


SELECT Book_Name FROM BOOKS_SHUBHAM WHERE Category IN ('SCIENCE','DATABASE');


SELECT Member_Name FROM MEMBER_SHUBHAM ORDER BY Penalty_Amount DESC;


SELECT Book_Name FROM BOOKS_SHUBHAM ORDER BY Category ASC, Cost DESC;


SELECT Book_Name FROM BOOKS_SHUBHAM WHERE Book_Name LIKE '%SQL%';


SELECT Member_Name FROM MEMBER_SHUBHAM WHERE Member_Name LIKE 'S%';


SELECT Member_Name FROM MEMBER_SHUBHAM WHERE Member_Name LIKE 'S%' UNION SELECT
Member_Name FROM MEMBER_SHUBHAM WHERE Member_Name LIKE 'A%' ;


SELECT INITCAP(Book_Name),UPPER(Author_name) FROM BOOKS_SHUBHAM ORDER BY
Book_Name DESC;


SELECT Book_No, Book_Name, Author_name, Cost, CASE Category WHEN 'Database' THEN 'D' WHEN
'Science' THEN 'S' WHEN 'RDBMS' THEN 'R' WHEN 'Others' THEN 'O' ELSE Category END AS Category
FROM BOOKS_SHUBHAM;


SELECT Member_Name FROM MEMBER_SHUBHAM WHERE EXTRACT(YEAR FROM
Acc_Open_Date)=2011;
```