

1.)

-- Creating Member table

```
CREATE TABLE Member1 (  
    Member_Id    NUMBER(5),  
    Member_Name  VARCHAR2(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)  
);
```

-- Creating Books table

```
CREATE TABLE Books1 (  
    Book_No    NUMBER(6),  
    Book_Name  VARCHAR2(30),  
    Author_name VARCHAR2(30),  
    Cost       NUMBER(7,2),  
    Category   CHAR(10)  
);
```

-- Creating Issue table

```
CREATE TABLE Issue1 (  
    Lib_Issue_Id NUMBER(10),  
    Book_No    NUMBER(6),  
    Member_Id  NUMBER(5),  
    Issue_Date DATE,  
    Return_date DATE  
);
```

```
SQL> CREATE TABLE Member1 (  
        Member_Id      NUMBER(5),  
        Member_Name     VARCHAR2(30),  
        Member_address  VARCHAR2(50),...  
Show more...
```

Table MEMBER1 created.

Elapsed: 00:00:00.010

```
SQL> CREATE TABLE Books1 (  
        Book_No      NUMBER(6),  
        Book_Name    VARCHAR2(30),  
        Author_name  VARCHAR2(30),...  
Show more...
```

Table BOOKS1 created.

Elapsed: 00:00:00.007

```
SQL> CREATE TABLE Issue1 (  
        Lib_Issue_Id NUMBER(10),  
        Book_No      NUMBER(6),  
        Member_Id    NUMBER(5),...  
Show more...
```

Table ISSUE1 created.

Elapsed: 00:00:00.006

2.) DESC MEMBER1;

DESC BOOKS1;

DESC ISSUE1;

SQL> DESC MEMBER1

Name	Null?	Type
MEMBER_ID		NUMBER(5)
MEMBER_NAME		VARCHAR2(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)

SQL> DESC BOOKS1

Name	Null?	Type
BOOK_NO		NUMBER(6)
BOOK_NAME		VARCHAR2(30)
AUTHOR_NAME		VARCHAR2(30)
COST		NUMBER(7,2)
CATEGORY		CHAR(10)

```
SQL> DESC ISSUE1
```

Name	Null?	Type
LIB_ISSUE_ID		NUMBER(10)
BOOK_NO		NUMBER(6)
MEMBER_ID		NUMBER(5)
ISSUE_DATE		DATE
RETURN_DATE		DATE

3.) DROP TABLE MEMBER1;

```
SQL> DROP TABLE MEMBER1
```

Table MEMBER1 dropped.

Elapsed: 00:00:00.020

4.)

```
CREATE TABLE Member1 (
```

```
    Member_Id    NUMBER(5),  
    Member_Name  VARCHAR2(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)
```

```
);
```

```
ALTER TABLE MEMBER1 MODIFY MEMBER_ID PRIMARY KEY;
```

```
ALTER TABLE MEMBER1 MODIFY MEMBERSHIP_TYPE CHECK (Membership_type  
IN ('Lifetime','Annual','Half Yearly','Quarterly'));
```

```
SQL> ALTER TABLE MEMBER1 MODIFY MEMBER_ID PRIMARY KEY
```

Table MEMBER1 altered.

Elapsed: 00:00:00.022

```
SQL> ALTER TABLE MEMBER1 MODIFY MEMBERSHIP_TYPE CHECK (Membership_type IN ('Lifetime','Annual','Half Yearly','Quarterly'))
```

Table MEMBER1 altered.

5. ALTER TABLE MEMBER1 MODIFY Member_Name VARCHAR2(30);

```
SQL> ALTER TABLE MEMBER1 MODIFY Member_Name VARCHAR2(30)
```

Table MEMBER1 altered.

Elapsed: 00:00:00.005

6. ALTER TABLE ISSUE1 ADD REFERENCE CHAR(30);

```
SQL> ALTER TABLE ISSUE1 ADD REFERENCE CHAR(30)
```

Table ISSUE1 altered.

7. ALTER TABLE ISSUE1 DROP COLUMN REFERENCE;

8. RENAME ISSUE1 TO LIB_ISSUE1;

9. INSERT INTO MEMBER1 VALUES(1,'Richa Sharma','Pune','10-DEC-05','Lifetime',25000,5,50);

INSERT INTO MEMBER1 VALUES(2,'Garima Sen','Pune',SYSDATE,'Annual',1000,3,NULL);

10.

```
INSERT INTO MEMBER1 (Member_Id, Member_Name, Member_address,  
Acc_Open_Date, Membership_Type, Fees_paid, Max_Books_Allowed, Penalty_Amount)
```

```
VALUES (3, 'Amit Kumar', 'Mumbai', TO_DATE('2005-07-01', 'YYYY-MM-DD'), 'Half  
Yearly', 5000, 4, 20);
```

```
INSERT INTO MEMBER1 (Member_Id, Member_Name, Member_address,  
Acc_Open_Date, Membership_Type, Fees_paid, Max_Books_Allowed, Penalty_Amount)
```

```
VALUES (4, 'Sonia Gupta', 'Delhi', TO_DATE('2006-05-12', 'YYYY-MM-DD'), 'Quarterly',  
1500, 2, 10);
```

```
INSERT INTO MEMBER1 (Member_Id, Member_Name, Member_address,  
Acc_Open_Date, Membership_Type, Fees_paid, Max_Books_Allowed, Penalty_Amount)
```

```
VALUES (5, 'Rajesh Kumar', 'Chennai', TO_DATE('2005-01-25', 'YYYY-MM-DD'),  
'Annual', 3000, 6, 15);
```

```
INSERT INTO MEMBER1 (Member_Id, Member_Name, Member_address,  
Acc_Open_Date, Membership_Type, Fees_paid, Max_Books_Allowed, Penalty_Amount)
```

```
VALUES (6, 'Neha Verma', 'Kolkata', TO_DATE('2006-11-05', 'YYYY-MM-DD'),  
'Lifetime', 25000, 5, 25);
```

```
INSERT INTO MEMBER1 (Member_Id, Member_Name, Member_address,  
Acc_Open_Date, Membership_Type, Fees_paid, Max_Books_Allowed, Penalty_Amount)
```

```
VALUES (7, 'Vikas Jain', 'Bangalore', TO_DATE('2005-09-15', 'YYYY-MM-DD'), 'Half  
Yearly', 3500, 3, 30);
```

--INSERTING THE VALUES IN BOOKS TABLE---

```
INSERT INTO BOOKS1 (Book_No, Book_Name, Author_name, Cost, Category)
```

```
VALUES (101, 'The Alchemist', 'Paulo Coelho', 399.99, 'Fiction');
```

```
INSERT INTO BOOKS1 (Book_No, Book_Name, Author_name, Cost, Category)
```

```
VALUES (102, 'The Da Vinci Code', 'Dan Brown', 499.50, 'Mystery');
```

```
INSERT INTO BOOKS1 (Book_No, Book_Name, Author_name, Cost, Category)
```

```
VALUES (103, 'Atomic Habits', 'James Clear', 299.75, 'Self-Help');
```

```
INSERT INTO BOOKS1 (Book_No, Book_Name, Author_name, Cost, Category)
```

```
VALUES (104, 'The Power of Now', 'Eckhart Tolle', 450.00, 'Spirituality');
```

```
INSERT INTO BOOKS1 (Book_No, Book_Name, Author_name, Cost, Category)
```

```
VALUES (105, 'The Silent Patient', 'Alex Michaelides', 399.00, 'Thriller');
```

--INSERTING THE VALUES IN ISSUE TABLE---

```
INSERT INTO LIB_ISSUE1 (Lib_Issue_Id, Book_No, Member_Id, Issue_Date,
Return_Date)
```

```
VALUES (1, 101, 1, TO_DATE('2005-12-10', 'YYYY-MM-DD'), TO_DATE('2006-12-24',
'YYYY-MM-DD'));
```

```
INSERT INTO LIB_ISSUE1 (Lib_Issue_Id, Book_No, Member_Id, Issue_Date,
Return_Date)
```

```
VALUES (2, 102, 2, SYSDATE, TO_DATE('2006-01-15', 'YYYY-MM-DD'));
```

```
INSERT INTO LIB_ISSUE1 (Lib_Issue_Id, Book_No, Member_Id, Issue_Date,
Return_Date)
```

```
VALUES (3, 103, 3, TO_DATE('2005-07-01', 'YYYY-MM-DD'), TO_DATE('2006-07-14',
'YYYY-MM-DD'));
```

```
INSERT INTO LIB_ISSUE1 (Lib_Issue_Id, Book_No, Member_Id, Issue_Date,
Return_Date)
```

```
VALUES (4, 104, 4, TO_DATE('2006-05-12', 'YYYY-MM-DD'), TO_DATE('2006-07-26',
'YYYY-MM-DD'));
```

```
INSERT INTO LIB_ISSUE1 (Lib_Issue_Id, Book_No, Member_Id, Issue_Date,
Return_Date)
```

```
VALUES (5, 105, 5, TO_DATE('2006-01-25', 'YYYY-MM-DD'), TO_DATE('2006-08-08',
'YYYY-MM-DD'));
```

11.) ALTER TABLE MEMBER1 MODIFY Member_Name VARCHAR2(20);

12.) SQL> INSERT INTO Member VALUES (106, 'Karthik P', 'Pune', TO_DATE('2023-12-01','YYYY-MM-DD'), 'Annual', 2000, 110, 0)

ERROR:ORA-01438: value 110 greater than specified precision (2, 0) for column

13.) CREATE TABLE MEMBER101 AS SELECT * FROM MEMBER1;

14.) ALTER TABLE MEMBER1 MODIFY MAX_BOOKS_ALLOWED CONSTRAINT
MAX_BOOKS_ALLOWED_CK CHECK (MAX_BOOKS_ALLOWED<100);

ALTER TABLE MEMBER1 MODIFY PENALTY_AMOUNT CONSTRAINT
PENALTY_AMOUNT_CK CHECK (PENALTY_AMOUNT <=1000);

15.) DROP TABLE BOOKS1;

16.) CREATE TABLE BOOKS1(

BOOK_NO NUMBER(6) PRIMARY KEY,

BOOK_NAME VARCHAR2(30) NOT NULL,

AUTHOR_NAME VARCHAR(30),

```
COST NUMBER(7,2),  
CATEGORY CHAR(10) CHECK (CATEGORY IN  
( 'Science','Fiction','Database','RDBMS','Others'))  
);
```

```
17.) INSERT INTO Books1
```

```
VALUES (101, 'Let us C', 'Denis Ritchie', 450, 'Science');
```

```
INSERT INTO Books1
```

```
VALUES (102, 'Oracle – Complete Ref', 'Loni', 550, 'Database');
```

```
INSERT INTO Books1
```

```
VALUES (103, 'Mastering SQL', 'Loni', 250, 'Database');
```

```
INSERT INTO Books1
```

```
VALUES (104, 'PL SQL-Ref', 'Scott Urman', 750, 'Database');
```

```
18.) INSERT INTO BOOKS1
```

```
VALUES(&BOOK_NO,&BOOK_NAME,&AUTHOR_NAME,&COST,&CATEGORY');
```

```
19.) CREATE TABLE BookS101
```

```
AS
```

```
SELECT * FROM BOOKS1
```

```
WHERE 1=2;
```

```
20.) INSERT INTO BookS101 SELECT * FROM BOOKS1;
```

```
21.)COMMIT
```

```
22.) SELECT * FROM BOOKS1;
```

```
SELECT * FROM BOOKS101;
```

```
SELECT * FROM MEMBER1;
```

```
SELECT * FROM MEMBER101;
```

```
SELECT * FROM LIB_ISSUE1;
```

```
23.)INSERT INTO BOOKS1 VALUES(105, 'National Geographic', 'Adis Scott', 1000,  
'Science');
```

```
24.ROLLBACK
```


25. UPDATE BOOKS1 SET COST=300 AND CATEGORY='RDBMS' WHERE BOOK_NO=103;

26. RENAME LIB_ISSUE1 TO ISSUE1;

27. DROP TABLE ISSUE1;

28. CREATE TABLE ISSUE1(

Lib_Issue_Id Number(10) Primary key,

Book_No Number(6) references Books1(Book_No),

Member_Id Number(5) references MEMBER1(Member_Id),

Issue_Date date,

Return_date date,

CONSTRAINT C1 CHECK (Issue_Date< Return_date)

);

29. INSERT INTO ISSUE1 (Lib_Issue_Id, Book_No, Member_Id, Issue_Date, Return_Date)
VALUES (7001, 101, 1, TO_DATE('10-Dec-06','DD-Mon-YY'), NULL);

INSERT INTO Issue1 (Lib_Issue_Id, Book_No, Member_Id, Issue_Date, Return_Date)
VALUES (7002, 102, 2, TO_DATE('25-Dec-06','DD-Mon-YY'), NULL);

INSERT INTO Issue1 (Lib_Issue_Id, Book_No, Member_Id, Issue_Date, Return_Date)
VALUES (7003, 104, 1, TO_DATE('15-Jan-06','DD-Mon-YY'), NULL);

INSERT INTO Issue1 (Lib_Issue_Id, Book_No, Member_Id, Issue_Date, Return_Date)
VALUES (7004, 101, 1, TO_DATE('04-Jul-06','DD-Mon-YY'), NULL);

INSERT INTO Issue1 (Lib_Issue_Id, Book_No, Member_Id, Issue_Date, Return_Date)
VALUES (7005, 104, 2, TO_DATE('15-Nov-06','DD-Mon-YY'), NULL);

INSERT INTO Issue1 (Lib_Issue_Id, Book_No, Member_Id, Issue_Date, Return_Date)
VALUES (7006, 101, 3, TO_DATE('18-Feb-06','DD-Mon-YY'), NULL);

30.) COMMIT

31.) ALTER TABLE ISSUE1 DISABLE PRIMARY KEY;

ALTER TABLE ISSUE1 DISABLE CONSTRAINT C1;
ALTER TABLE ISSUE1 DISABLE CONSTRAINT SYS_C003234818;
ALTER TABLE ISSUE1 DISABLE CONSTRAINT SYS_C003234819;
32.) INSERT INTO ISSUE1 VALUES(7007,104,10,'01-FEB-2006',NULL);
33.)ALTER TABLE ISSUE1 ENABLE PRIMARY KEY;
ALTER TABLE ISSUE1 ENABLE CONSTRAINT C1;
ALTER TABLE ISSUE1 ENABLE CONSTRAINT SYS_C003234818;
ALTER TABLE ISSUE1 ENABLE CONSTRAINT SYS_C003234819;

```
SQL> ALTER TABLE ISSUE1 ENABLE CONSTRAINT SYS_C003234819
```

ORA-02298: cannot validate (SQL_203RTM6WRT954QLFXACNFYF876.SYS_C003234819) - parent keys not found

<https://docs.oracle.com/error-help/db/ora-02298/>
Error at Line: 4 Column: 0

34.) DELETE FROM ISSUE1 WHERE Lib_Issue_Id=7007;

35.) DELETE FROM MEMBER1 WHERE Member_Id=1;

```
SQL> DELETE FROM MEMBER1 WHERE Member_Id=1
```

ORA-02292: integrity constraint (SQL_203RTM6WRT954QLFXACNFYF876.SYS_C003234819) violated - child record found

<https://docs.oracle.com/error-help/db/ora-02292/>

36.) UPDATE Issue1 SET RETURN_Date=15+ISSUE_Date WHERE Lib_Issue_Id IN (7004,7005);

37.) UPDATE MEMBER1 SET PENALTY_AMOUNT=100 WHERE MEMBER_NAME='Garima Sen';

38.) SAVEPOINT X;

39.) DELETE FROM ISSUE1 WHERE MEMBER_ID=1 AND ISSUE_Date<'10-DEC-2006';

40.) DELETE FROM BOOKS1 WHERE CATEGORY NOT IN('RDBMS','Others');

```
SQL> DELETE FROM BOOKS1 WHERE CATEGORY NOT IN('RDBMS','Others')
```

ORA-02292: integrity constraint (SQL_203RTM6WRT954QLFXACNFYF876.SYS_C003234818) violated - child record found

<https://docs.oracle.com/error-help/db/ora-02292/>
Error at Line: 4 Column: 0

41.) ROLLBACK X;

42.) COMMIT;

43.) DROP TABLE MEMBER101;

44.) DROP TABLE BOOKS101;

45.) DESC MEMBER1;

DESC BOOKS1;

DESC ISSUE1;

SELECT * FROM MEMBER1;

SELECT * FROM BOOKS1;

SELECT * FROM ISSUE1;

46.) CREATE SEQUENCE no_seq START WITH 100 INCREMENT BY 2 MAXVALUE 200 NOCYCLE;

47.) DROP SEQUENCE no_seq;

48.) CREATE SEQUENCE book_seq START WITH 101 INCREMENT BY 1 MAXVALUE 1000 NOCYCLE;

49.) CREATE SEQUENCE member_seq START WITH 1 INCREMENT BY 1 MAXVALUE 100 NOCYCLE;

50.) DROP SEQUENCE book_seq;

DROP SEQUENCE member_seq;