

[ SQL Worksheet ]\* ▼



Aa ▼



```
1  -- Member Table
2  CREATE TABLE Member (
3      Member_Id NUMBER(5) PRIMARY KEY,
4      Member_Name VARCHAR2(30),
5      Member_address VARCHAR2(50),
6      Acc_Open_Date DATE,
7      Membership_type VARCHAR2(20),
8      Fees_paid NUMBER(4),
9      Max_Books_Allowed NUMBER(2),
10     Penalty_Amount NUMBER(7,2)
11 );
12
13 -- Books Table
14 CREATE TABLE Books (
15     Book_No NUMBER(6) PRIMARY KEY,
16     Book_Name VARCHAR2(30),
17     Author_name VARCHAR2(30),
18     Cost NUMBER(7,2),
19     Category CHAR(10)
20 );
21
```

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15     Book_No NUMBER(6) PRIMARY KEY,
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17     Author_name VARCHAR2(30),
18     Cost NUMBER(7,2),
19     Category CHAR(10)
20 );
21
```

-- Issue Table

```
CREATE TABLE Issue (
    Lib_Issue_Id NUMBER(10) PRIMARY KEY,
    Book_No NUMBER(6),
    Member_Id NUMBER(5),
    Issue_Date DATE,
    Return_date DATE,
    FOREIGN KEY (Book_No) REFERENCES Books(Book_No),
    FOREIGN KEY (Member_Id) REFERENCES Member(Member_Id)
);
```

```
33 INSERT INTO Member VALUES (101, 'Ritesh Kumar', 'Delhi', TO_DATE('2006-02-10', 'YYYY-MM-DD'), 'Annual', 300, 4, 25.50);
34 INSERT INTO Member VALUES (102, 'Gita Rani', 'Mumbai', TO_DATE('2006-06-15', 'YYYY-MM-DD'), 'Lifetime', 1000, 10, 0.00);
35 INSERT INTO Member VALUES (103, 'Rajiv Singh', 'Chennai', TO_DATE('2005-12-01', 'YYYY-MM-DD'), 'Quarterly', 150, 2, 10.00);
36 INSERT INTO Member VALUES (104, 'Lina George', 'Pune', TO_DATE('2006-01-20', 'YYYY-MM-DD'), 'Half Yearly', 200, 3, 5.75);
37 INSERT INTO Member VALUES (
38     105,
39     'Rohit Iyer',
40     'Hyderabad',
41     TO_DATE('2007-03-12', 'YYYY-MM-DD'),
42     'Annual',
43     350,
44     5,
45     15.25
46 );
47
48
49 INSERT INTO Books VALUES (1001, 'SQL Basics', 'Loni', 550.00, 'Database');
50 INSERT INTO Books VALUES (1002, 'Oracle Mastery', 'Loni', 750.00, 'Database');
51 INSERT INTO Books VALUES (1003, 'Fictional Reality', 'Arun', 450.00, 'Fiction');
52 INSERT INTO Books VALUES (1004, 'Science and You', 'Meena', 620.00, 'Science');
53 INSERT INTO Books VALUES (1005, 'Advanced RDBMS', 'Singh', 800.00, 'RDBMS');
54 INSERT INTO Books VALUES (
55     1006,
56     'Intro to Databases',
57     'Nina Shah',
58     580.00,
59     'Database'
60 );
61
62
63 INSERT INTO Issue VALUES (7001, 1001, 101, TO_DATE('2006-06-01', 'YYYY-MM-DD'), TO_DATE('2006-06-25', 'YYYY-MM-DD'));
64 INSERT INTO Issue VALUES (7002, 1002, 102, TO_DATE('2006-06-05', 'YYYY-MM-DD'), NULL);
65 INSERT INTO Issue VALUES (7003, 1003, 103, TO_DATE('2006-07-01', 'YYYY-MM-DD'), TO_DATE('2006-07-15', 'YYYY-MM-DD'));
66 INSERT INTO Issue VALUES (7004, 1004, 101, TO_DATE('2006-07-10', 'YYYY-MM-DD'), TO_DATE('2006-08-10', 'YYYY-MM-DD'));
67 INSERT INTO Issue VALUES (7005, 1005, 104, TO_DATE('2006-07-15', 'YYYY-MM-DD'), NULL);
68 INSERT INTO Issue VALUES (
69     7006,
70     1006, -- Book_No exists in Books table
71     105, -- Member_Id exists in Member table
72     TO_DATE('2007-03-15', 'YYYY-MM-DD'),
73     TO_DATE('2007-04-10', 'YYYY-MM-DD')
74 );
75
```

	BOOK_NO	BOOK_NAME	AUTHOR_NAME	COST	CATEGORY
1	1006	Intro to Databases	Nina Shah	580	Database
2	1001	SQL Basics	Loni	550	Database
3	1002	Oracle Mastery	Loni	750	Database
4	1003	Fictional Reality	Arun	450	Fiction
5	1004	Science and You	Meena	620	Science
6	1005	Advanced RDBMS	Singh	800	RDBMS

	MEMBER_ID	MEMBER_NAME	MEMBER_ADDRESS	ACC_OPEN_DATE	MEMBERSHIP_TYPE	FEES_PAID	MAX_BOOKS_ALLO	PENALTY_AMOUNT
1	105	Rohit Iyer	Hyderabad	3/12/2007, 12:00:00	Annual	350	5	15.25
2	101	Ritesh Kumar	Delhi	2/10/2006, 12:00:00	Annual	300	4	25.5
3	102	Gita Rani	Mumbai	6/15/2006, 12:00:00	Lifetime	1000	10	0
4	103	Rajiv Singh	Chennai	12/1/2005, 12:00:00	Quarterly	150	2	10
5	104	Lina George	Pune	1/20/2006, 12:00:00	Half Yearly	200	3	5.75

	LIB_ISSUE_ID	BOOK_NO	MEMBER_ID	ISSUE_DATE	RETURN_DATE
1	7006	1006	105	3/15/2007, 12:00:00	4/10/2007, 12:00:00
2	7001	1001	101	6/1/2006, 12:00:00	6/25/2006, 12:00:00
3	7002	1002	102	6/5/2006, 12:00:00	(null)
4	7003	1003	103	7/1/2006, 12:00:00	7/15/2006, 12:00:00
5	7004	1004	101	7/10/2006, 12:00:00	8/10/2006, 12:00:00
6	7005	1005	104	7/15/2006, 12:00:00	(null)

1. **SELECT** BOOK\_NAME **FROM** BOOKS **WHERE** AUTHOR\_NAME='Loni' **AND** COST < 600;

	BOOK_NAME
1	SQL Basics

2. **SELECT** LIB\_ISSUE\_ID,BOOK\_NO,MEMBER\_ID,ISSUE\_DATE **FROM** ISSUE **WHERE** RETURN\_DATE **IS NULL**;

	LIB_ISSUE_ID	BOOK_NO	MEMBER_ID	ISSUE_DATE
1	7002	1002	102	6/5/2006, 12:00:00 AM
2	7005	1005	104	7/15/2006, 12:00:00 AM

3. **UPDATE** ISSUE **SET** RETURN\_DATE='31-DEC-2006' **WHERE** RETURN\_DATE **IS NULL** **AND** LIB\_ISSUE\_ID **NOT IN** (7005,7006);

	LIB_ISSUE_ID	BOOK_NO	MEMBER_ID	ISSUE_DATE	RETURN_DATE
1	7006	1006	105	3/15/2007, 12:00:00 AM	4/10/2007, 12:00:00 AM
2	7001	1001	101	6/1/2006, 12:00:00 AM	6/25/2006, 12:00:00 AM
3	7002	1002	102	6/5/2006, 12:00:00 AM	12/31/2006, 12:00:00 AM
4	7003	1003	103	7/1/2006, 12:00:00 AM	7/15/2006, 12:00:00 AM
5	7004	1004	101	7/10/2006, 12:00:00 AM	8/10/2006, 12:00:00 AM
6	7005	1005	104	7/15/2006, 12:00:00 AM	(null)

4. **SELECT \* FROM ISSUE WHERE RETURN\_DATE IS NOT NULL AND MONTHS\_BETWEEN(RETURN\_DATE,ISSUE\_DATE)\*31 >30;**

	LIB_ISSUE_ID	BOOK_NO	MEMBER_ID	ISSUE_DATE	RETURN_DATE
1	7002	1002	102	6/5/2006, 12:00:00	12/31/2006, 12:00:00
2	7004	1004	101	7/10/2006, 12:00:00	8/10/2006, 12:00:00

5. **SELECT BOOK\_NAME FROM BOOKS WHERE COST > 500 AND COST < 750 AND CATEGORY='Database';**

	BOOK_NAME
1	Intro to Databases
2	SQL Basics

6. **SELECT BOOK\_NAME FROM BOOKS WHERE CATEGORY IN ('Database','Fiction','Science','Management');**

	BOOK_NAME
1	Intro to Databases
2	SQL Basics
3	Oracle Mastery
4	Fictional Reality
5	Science and You

7. **SELECT MEMBER\_NAME FROM MEMBER ORDER BY PENALTY\_AMOUNT DESC;**

	MEMBER_NAME
1	Ritesh Kumar
2	Rohit Iyer
3	Rajiv Singh
4	Lina George
5	Gita Rani

8. **SELECT** Book\_Name,**COST** **FROM** BOOKS **ORDER BY** BOOK\_NAME **ASC**,**COST** **DESC**;

	BOOK_NAME	COST
1	Advanced RDBMS	800
2	Fictional Reality	450
3	Intro to Databases	580
4	Oracle Mastery	750
5	SQL Basics	550
6	Science and You	620

9. **SELECT** BOOK\_NAME **FROM** BOOKS **WHERE** BOOK\_NAME **LIKE** '%SQL%';

	BOOK_NAME
1	SQL Basics

10. **SELECT** MEMBER\_NAME **FROM** MEMBER **WHERE** MEMBER\_NAME **LIKE** 'R%i%' **OR** MEMBER\_NAME **LIKE** 'G%i%' **or** MEMBER\_NAME **LIKE** 'R%I%' **or** MEMBER\_NAME **LIKE** 'G%I%';

	MEMBER_NAME
1	Rohit Iyer
2	Ritesh Kumar
3	Gita Rani
4	Rajiv Singh

11. **SELECT** INITCAP(BOOK\_NAME) ,UPPER(AUTHOR\_NAME) **FROM** BOOKS **ORDER BY** BOOK\_NAME **DESC**;

	INITCAP(BOOK_NAME)	UPPER(AUTHOR_NAME)
1	Science And You	MEENA
2	Sql Basics	LONI
3	Oracle Mastery	LONI
4	Intro To Databases	NINA SHAH
5	Fictional Reality	ARUN
6	Advanced Rdbms	SINGH

12. **SELECT**  
LIB\_ISSUE\_ID,BOOK\_NO,MEMBER\_ID,**TO\_CHAR**(ISSUE\_DATE,'DAY,MONTH,DD,YYYY'),  
**TO\_CHAR**(RETURN\_DATE,'DAY,MONTH,DD,YYYY') **FROM** ISSUE **WHERE**  
MEMBER\_ID=101;

	LIB_ISSUE_ID	BOOK_NO	MEMBER_ID	TO_CHAR(ISSUE_DATE,'DAY,MONTH,DD,YYYY')	TO_CHAR(RETURN_DATE,'DAY,MONTH,DD,YYYY')
1	7001	1001	101	THURSDAY ,JUNE ,01,2006	SUNDAY ,JUNE ,25,2006
2	7004	1004	101	MONDAY ,JULY ,10,2006	THURSDAY ,AUGUST ,10,2006

13. **SELECT** BOOK\_NO,BOOK\_NAME,AUTHOR\_NAME,COST,

**CASE**

**WHEN** CATEGORY='Database' **THEN** 'D'

**WHEN** CATEGORY='Science' **THEN** 'S'

**WHEN** CATEGORY='RDBMS' **THEN** 'R'

**ELSE** '0'

**END AS** Category

**FROM** BOOKS;

	BOOK_NO	BOOK_NAME	AUTHOR_NAME	COST	CATEGORY
1	1006	Intro to Databases	Nina Shah	580	D
2	1001	SQL Basics	Loni	550	D
3	1002	Oracle Mastery	Loni	750	D
4	1003	Fictional Reality	Arun	450	0
5	1004	Science and You	Meena	620	S
6	1005	Advanced RDBMS	Singh	800	R

14. **SELECT** MEMBER\_NAME **FROM** MEMBER **WHERE**  
**TO\_CHAR**(ACC\_OPEN\_DATE,'YYYY')='2007';

	MEMBER_NAME
1	Rohit Iyer

15. **SELECT** LIB\_ISSUE\_ID,ISSUE\_DATE,RETURN\_DATE,

**CASE**

**WHEN** RETURN\_DATE **IS NULL** **THEN** SYSDATE-ISSUE\_DATE

**ELSE** RETURN\_DATE-ISSUE\_DATE

**END AS** NO\_OF\_DAYS

**FROM** ISSUE;

	LIB_ISSUE_ID	ISSUE_DATE	RETURN_DATE	NO_OF_DAYS
1	7006	3/15/2007, 12:00:00 AM	4/10/2007, 12:00:00 AM	26
2	7001	6/1/2006, 12:00:00 AM	6/25/2006, 12:00:00 AM	24
3	7002	6/5/2006, 12:00:00 AM	12/31/2006, 12:00:00 AM	209
4	7003	7/1/2006, 12:00:00 AM	7/15/2006, 12:00:00 AM	14
5	7004	7/10/2006, 12:00:00 AM	8/10/2006, 12:00:00 AM	31
6	7005	7/15/2006, 12:00:00 AM	(null)	6981.742743055555

16. **SELECT \* FROM MEMBER ORDER BY ACC\_OPEN\_DATE ASC;**

	MEMBER_ID	MEMBER_NAME	MEMBER_ADDRESS	ACC_OPEN_DATE	MEMBERSHIP_TYPE	FEES_PAID	MAX_BOOKS_ALLO	PENALTY_AMOUNT
1	103	Rajiv Singh	Chennai	12/1/2005, 12:00:00 AM	Quarterly	150	2	10
2	104	Lina George	Pune	1/20/2006, 12:00:00 AM	Half Yearly	200	3	5.75
3	101	Ritesh Kumar	Delhi	2/10/2006, 12:00:00 AM	Annual	300	4	25.5
4	102	Gita Rani	Mumbai	6/15/2006, 12:00:00 AM	Lifetime	1000	10	0
5	105	Rohit Iyer	Hyderabad	3/12/2007, 12:00:00 AM	Annual	350	5	15.25

17. **SELECT COUNT(BOOK\_NO) FROM ISSUE WHERE MEMBER\_ID=101;**

	COUNT(BOOK_NO)
1	2

18. **SELECT SUM(PENALTY\_AMOUNT) FROM MEMBER;**

	SUM(PENALTY_AMOUNT)
1	56.5

19. **SELECT COUNT(MEMBER\_ID) FROM MEMBER;**

	COUNT(MEMBER_ID)
1	5

20. **SELECT COUNT(BOOK\_NO) FROM ISSUE;**

	COUNT(BOOK_NO)
1	6

21. **SELECT AVG(FEES\_PAID) FROM MEMBER;**

	AVG(FEES_PAID)
1	400

22. **SELECT MONTHS\_BETWEEN**(RETURN\_DATE,ISSUE\_DATE) **FROM** ISSUE;

	MONTHS_BETWEEN(RETURN_DATE,ISSUE_DATE)
1	0.8387096774193549
2	0.7741935483870968
3	6.838709677419355
4	0.45161290322580644
5	1
6	(null)

23. **SELECT LENGTH**(MEMBER\_NAME) **FROM** MEMBER;

	LENGTH(MEMBER_NAME)
1	10
2	12
3	9
4	11
5	11

24. **SELECT** MEMBER\_NAME,**SUBSTR**(MEMBERSHIP\_TYPE,1,5) **FROM** MEMBER;

	MEMBER_NAME	SUBSTR(MEMBERSHIP_TYPE,1,5)
1	Rohit Iyer	Annua
2	Ritesh Kumar	Annua
3	Gita Rani	Lifet
4	Rajiv Singh	Quart
5	Lina George	Half

25. **SELECT**  
**ISSUE\_DATE, LAST\_DAY**(ISSUE\_DATE),**TO\_CHAR**(**LAST\_DAY**(ISSUE\_DATE),'Day') **FROM**  
**ISSUE;**

	ISSUE_DATE	LAST_DAY(ISSUE_DATE)	TO_CHAR(LAST_DAY(ISSUE_DATE),'DAY')
1	3/15/2007, 12:00:00 AM	3/31/2007, 12:00:00 AM	Saturday
2	6/1/2006, 12:00:00 AM	6/30/2006, 12:00:00 AM	Friday
3	6/5/2006, 12:00:00 AM	6/30/2006, 12:00:00 AM	Friday
4	7/1/2006, 12:00:00 AM	7/31/2006, 12:00:00 AM	Monday
5	7/10/2006, 12:00:00 AM	7/31/2006, 12:00:00 AM	Monday
6	7/15/2006, 12:00:00 AM	7/31/2006, 12:00:00 AM	Monday