

PRACTICAL-1

CREATE AND DESCRIBE TABLE ACCOUNT_24012011161 :-

```
1 • CREATE DATABASE PRACTICAL1;
2 • USE PRACTICAL1;
3 • CREATE TABLE ACCOUNT_24012011161 (
4     acc_no VARCHAR(5),
5     Name VARCHAR(30),
6     City VARCHAR(20),
7     Balance DECIMAL(10,2),
8     long_taken VARCHAR(5)
9 );
```

Output

#	Time	Action	Message
✓ 1	18:51:45	CREATE DATABASE PRACTICAL1	1 row(s) affected
✓ 2	18:51:45	USE PRACTICAL1	0 row(s) affected
✓ 3	18:51:45	CREATE TABLE ACCOUNT_24012011161 (acc_no VARCHAR(5), Name VARCHAR(30), City VARCHAR(...	0 row(s) affected

24 • DESCRIBE ACCOUNT_24012011161;

Result Grid | Filter Rows: | Export: | Wrap Cell Content: [T](#)

Field	Type	Null	Key	Default	Extra
acc_no	varchar(5)	YES		NULL	
Name	varchar(30)	YES		NULL	
City	varchar(20)	YES		NULL	
Balance	decimal(10,2)	YES		NULL	
long_taken	varchar(5)	YES		NULL	

Result 5 x

Output

#	Time	Action	Message
✓ 1	19:07:51	DESCRIBE ACCOUNT_24012011161	5 row(s) returned

CREATE AND DESCRIBE TABLE LOAN_24012011161 :-

```
10 • CREATE TABLE LOAN_24012011161 (  
11     loan_no VARCHAR(5),  
12     acc_no VARCHAR(5),  
13     loan_amt DECIMAL(10,2),  
14     interest_rate DECIMAL(5,2),  
15     loan_date DATE,  
16     remaining_loan DECIMAL(10,2)  
17 );
```

Output

#	Time	Action	Message
1	18:57:13	CREATE TABLE LOAN_24012011161 (loan_no VARCHAR(5), acc_no VARCHAR(5), loan_amt DECIMAL(...	0 row(s) affected

25 • DESCRIBE LOAN_24012011161

Result Grid | Filter Rows: | Exports: | Wrap Cell Content: [IA](#)

Field	Type	Null	Key	Default	Extra
loan_no	varchar(5)	YES		NULL	
acc_no	varchar(5)	YES		NULL	
loan_amt	decimal(10,2)	YES		NULL	
interest_rate	decimal(5,2)	YES		NULL	
loan_date	date	YES		NULL	
remaining_loan	decimal(10,2)	YES		NULL	

Result 6 x

Output

#	Time	Action	Message
1	19:08:55	DESCRIBE LOAN_24012011161	6 row(s) returned

CREATE AND DESCRIBE TABLE INSTALLMENT_24012011161 :-

```
18 • CREATE TABLE INSTALLMENT_24012011161 (  
19     loan_no VARCHAR(5),  
20     inst_no VARCHAR(5),  
21     inst_Date DATE,  
22     Amount DECIMAL(10,2)  
23 );
```

Output

Action Output

#	Time	Action	Message
1	19:03:34	CREATE TABLE INSTALLMENT_24012011161 (loan_no VARCHAR(5), inst_no VARCHAR(5), inst_Date ...	0 row(s) affected

```
26 • DESCRIBE INSTALLMENT_24012011161;
```

Result Grid | Filter Rows: | Exports: | Wrap Cell Content: [1A](#)

Field	Type	Null	Key	Default	Extra
loan_no	varchar(5)	YES		NULL	
inst_no	varchar(5)	YES		NULL	
inst_Date	date	YES		NULL	
Amount	decimal(10,2)	YES		NULL	

Result 7 x

Output

Action Output

#	Time	Action	Message
1	19:10:08	DESCRIBE INSTALLMENT_24012011161	4 row(s) returned

Insert the following records.

acc_no	Name	City	Balance	loan_taken
A001	Patel Jigar	Mehsana	50000	YES
A002	Patel Ramesh	Mehsana	50000	YES
A003	Dave Hardik	Ahmedabad	75000	NO
A004	Soni Hetal	Ahmedabad	100000	NO
A005	Sony Atul	Vadodara	100000	YES

- ```

28 • INSERT INTO ACCOUNT_24012011161 (acc_no,Name,City,Balance,loan_taken) VALUES ("A001","Patel Jigar","Mehsana",50000,"YES");
29 • INSERT INTO ACCOUNT_24012011161 (acc_no,Name,City,Balance,loan_taken) VALUES ("A002","Patel Ramesh","Mehsana",50000,"YES");
30 • INSERT INTO ACCOUNT_24012011161 (acc_no,Name,City,Balance,loan_taken) VALUES ("A003","Dave Hardik","Ahmedabad",75000,"NO");
31 • INSERT INTO ACCOUNT_24012011161 (acc_no,Name,City,Balance,loan_taken) VALUES ("A004","Soni Hetal","Ahmedabad",100000,"NO");
32 • INSERT INTO ACCOUNT_24012011161 (acc_no,Name,City,Balance,loan_taken) VALUES ("A005","Sony Atul","Vadodara",100000,"YES");

```

Insert the following Records.

| Loan_no | Acc_no | Loan_amt | Interest_rate | Loan_date  | Remaining_loan |
|---------|--------|----------|---------------|------------|----------------|
| L001    | A001   | 100000   | 7             | 1-jan-04   | 75000          |
| L002    | A002   | 300000   | 9             | 18-may-04  | 150000         |
| L003    | A005   | 500000   | 11            | 15-june-04 | 300000         |

- ```

34 • INSERT INTO LOAN_24012011161 (loan_no,acc_no,loan_amt,interest_rate,loan_date,remaining_loan) VALUES ("L001","A001","100000",7,'2004-01-01','75000');
35 • INSERT INTO LOAN_24012011161 (loan_no,acc_no,loan_amt,interest_rate,loan_date,remaining_loan) VALUES ("L002","A002","300000",9,'2004-05-18','150000');
36 • INSERT INTO LOAN_24012011161 (loan_no,acc_no,loan_amt,interest_rate,loan_date,remaining_loan) VALUES ("L003","A003","500000",11,'2004-06-15','300000');

```

Loan_no	Inst_no	Inst_Date	Amount
L001	I001	2-Feb-04	15000
L002	I002	18-June-04	20000
L003	I003	15-July-04	20000

- ```

38 • INSERT INTO INSTALLMENT_24012011161 (loan_no,inst_no,inst_Date,Amount) VALUES ("L001","I001",'2004-02-02',15000);
39 • INSERT INTO INSTALLMENT_24012011161 (loan_no,inst_no,inst_Date,Amount) VALUES ("L002","I002",'2004-06-18',20000);
40 • INSERT INTO INSTALLMENT_24012011161 (loan_no,inst_no,inst_Date,Amount) VALUES ("L003","I003",'2004-07-15',20000);

```

1. Display all rows and all columns of table Installment.

```
48 • SELECT * FROM INSTALLMENT_24012011161;
```

|   | loan_no | inst_no | inst_Date  | Amount   |
|---|---------|---------|------------|----------|
| ▶ | L001    | I001    | 2004-02-02 | 15000.00 |
|   | L002    | I002    | 2004-06-18 | 20000.00 |
|   | L003    | I003    | 2004-07-15 | 20000.00 |

2. Display all rows and selected columns of table Installment.

```
49 • SELECT loan_no, inst_no, amount FROM INSTALLMENT_24012011161;
```

|   | loan_no | inst_no | amount   |
|---|---------|---------|----------|
| ▶ | L001    | I001    | 15000.00 |
|   | L002    | I002    | 20000.00 |
|   | L003    | I003    | 20000.00 |

3. Display selected rows and selected columns of table Account.

```
50 • SELECT acc_no, name, balance FROM ACCOUNT_24012011161 WHERE city = 'Ahmedabad';
```

|   | acc_no | name        | balance   |
|---|--------|-------------|-----------|
| ▶ | A003   | Dave Hardik | 75000.00  |
|   | A004   | Soni Hetal  | 100000.00 |

4. Display selected rows and all columns of table loan.

```
51 • SELECT * FROM LOAN_24012011161 WHERE interest_rate > 8;
```

|   | loan_no | acc_no | loan_amt  | interest_rate | loan_date  | remaining_loan |
|---|---------|--------|-----------|---------------|------------|----------------|
| ▶ | L002    | A002   | 300000.00 | 9.00          | 2004-05-18 | 150000.00      |
|   | L003    | A003   | 500000.00 | 11.00         | 2004-06-15 | 300000.00      |

5. Show the structure of the table loan, account and installment.

52 • DESCRIBE ACCOUNT\_24012011161;

| Field      | Type          | Null | Key | Default | Extra |
|------------|---------------|------|-----|---------|-------|
| acc_no     | varchar(5)    | YES  |     | NULL    |       |
| Name       | varchar(30)   | YES  |     | NULL    |       |
| City       | varchar(20)   | YES  |     | NULL    |       |
| Balance    | decimal(10,2) | YES  |     | NULL    |       |
| loan_taken | varchar(5)    | YES  |     | NULL    |       |

53 • DESCRIBE LOAN\_24012011161;

| Field          | Type          | Null | Key | Default | Extra |
|----------------|---------------|------|-----|---------|-------|
| loan_no        | varchar(5)    | YES  |     | NULL    |       |
| acc_no         | varchar(5)    | YES  |     | NULL    |       |
| loan_amt       | decimal(10,2) | YES  |     | NULL    |       |
| interest_rate  | decimal(5,2)  | YES  |     | NULL    |       |
| loan_date      | date          | YES  |     | NULL    |       |
| remaining_loan | decimal(10,2) | YES  |     | NULL    |       |

54 • DESCRIBE INSTALLMENT\_24012011161;

| Field     | Type          | Null | Key | Default | Extra |
|-----------|---------------|------|-----|---------|-------|
| loan_no   | varchar(5)    | YES  |     | NULL    |       |
| inst_no   | varchar(5)    | YES  |     | NULL    |       |
| inst_Date | date          | YES  |     | NULL    |       |
| Amount    | decimal(10,2) | YES  |     | NULL    |       |

6. Change the name 'Patel Jigar' to 'Patel Hiren' in Account Table.

55 • UPDATE ACCOUNT\_24012011161 SET name = 'Patel Hiren' WHERE name = 'Patel Jigar';

56 • SELECT \* FROM ACCOUNT\_24012011161;

| acc_no | Name         | City      | Balance   | loan_taken |
|--------|--------------|-----------|-----------|------------|
| A001   | Patel Hiren  | Mehsana   | 50000.00  | YES        |
| A002   | Patel Ramesh | Mehsana   | 50000.00  | YES        |
| A003   | Dave Hardik  | Ahmedabad | 75000.00  | NO         |
| A004   | Soni Hetal   | Ahmedabad | 100000.00 | NO         |
| A005   | Sony Atul    | Vadodara  | 100000.00 | YES        |

7. Change the name and city where account number is A005.

(new name = 'Kothari Nehal' and new city = 'Kherva').

```
57 • UPDATE ACCOUNT_24012011161 SET name = 'Kothari Nehal', city = 'Kherva' WHERE acc_no = 'A005';
58 • SELECT * FROM ACCOUNT_24012011161;
```

| acc_no | Name          | City      | Balance   | loan_taken |
|--------|---------------|-----------|-----------|------------|
| A001   | Patel Hiren   | Mehsana   | 50000.00  | YES        |
| A002   | Patel Ramesh  | Mehsana   | 50000.00  | YES        |
| A003   | Dave Hardik   | Ahmedabad | 75000.00  | NO         |
| A004   | Soni Hetal    | Ahmedabad | 100000.00 | NO         |
| A005   | Kothari Nehal | Kherva    | 100000.00 | YES        |

8. Display only those records where loan taken status is 'YES'.

```
59 • SELECT * FROM ACCOUNT_24012011161 WHERE loan_taken = 'YES';
```

| acc_no | Name          | City    | Balance   | loan_taken |
|--------|---------------|---------|-----------|------------|
| A001   | Patel Hiren   | Mehsana | 50000.00  | YES        |
| A002   | Patel Ramesh  | Mehsana | 50000.00  | YES        |
| A005   | Kothari Nehal | Kherva  | 100000.00 | YES        |

9. Add the new column (address varchar2 (20)) into table ACCOUNT.

```
60 • ALTER TABLE ACCOUNT_24012011161 ADD address VARCHAR(20);
61 • DESCRIBE ACCOUNT_24012011161;
```

| Field      | Type          | Null | Key | Default | Extra |
|------------|---------------|------|-----|---------|-------|
| acc_no     | varchar(5)    | YES  |     | NULL    |       |
| Name       | varchar(30)   | YES  |     | NULL    |       |
| City       | varchar(20)   | YES  |     | NULL    |       |
| Balance    | decimal(10,2) | YES  |     | NULL    |       |
| loan_taken | varchar(5)    | YES  |     | NULL    |       |
| address    | varchar(20)   | YES  |     | NULL    |       |

10. Modify the structure of table LOAN by adding one column credit\_no

varchar2 (4) (Loan table).

```
62 • ALTER TABLE LOAN_24012011161 ADD credit_no VARCHAR(4);
63 • DESCRIBE LOAN_24012011161;
```

| Field          | Type          | Null | Key | Default | Extra |
|----------------|---------------|------|-----|---------|-------|
| loan_no        | varchar(5)    | YES  |     | NULL    |       |
| acc_no         | varchar(5)    | YES  |     | NULL    |       |
| loan_amt       | decimal(10,2) | YES  |     | NULL    |       |
| interest_rate  | decimal(5,2)  | YES  |     | NULL    |       |
| loan_date      | date          | YES  |     | NULL    |       |
| remaining_loan | decimal(10,2) | YES  |     | NULL    |       |
| credit_no      | varchar(4)    | YES  |     | NULL    |       |

11. Create another table ACCOUNT\_TEMP having columns (acc\_no, name, balance) from table ACCOUNT.

```
64 • CREATE TABLE ACCOUNT_TEMP AS SELECT acc_no, name, balance FROM ACCOUNT_24012011161;
65 • SELECT * FROM ACCOUNT_TEMP;
```

| acc_no | name          | balance   |
|--------|---------------|-----------|
| A001   | Patel Hiren   | 50000.00  |
| A002   | Patel Ramesh  | 50000.00  |
| A003   | Dave Hardik   | 75000.00  |
| A004   | Soni Hetal    | 100000.00 |
| A005   | Kothari Nehal | 100000.00 |

12. Create another table LOAN\_TEMP (loan\_no, Acc\_no, loan\_amt, loan\_date)from The table LOAN.

```
66 • CREATE TABLE LOAN_TEMP AS SELECT loan_no, acc_no, loan_amt, loan_date FROM LOAN_24012011161;
67 • SELECT * FROM LOAN_TEMP;
```

| loan_no | acc_no | loan_amt  | loan_date  |
|---------|--------|-----------|------------|
| L001    | A001   | 100000.00 | 2004-01-01 |
| L002    | A002   | 300000.00 | 2004-05-18 |
| L003    | A003   | 500000.00 | 2004-06-15 |

13. Create another table TRANS\_TEMP by change the column name acc\_no to account\_no.



```
68 • CREATE TABLE TRANS_TEMP AS SELECT acc_no AS account_no, name, city, balance, loan_taken FROM ACCOUNT_24012011161;
69 • SELECT * FROM TRANS_TEMP;
```

| account_no | name          | city      | balance   | loan_taken |
|------------|---------------|-----------|-----------|------------|
| A001       | Patel Hiren   | Mehsana   | 50000.00  | YES        |
| A002       | Patel Ramesh  | Mehsana   | 50000.00  | YES        |
| A003       | Dave Hardik   | Ahmedabad | 75000.00  | NO         |
| A004       | Soni Hetal    | Ahmedabad | 100000.00 | NO         |
| A005       | Kothari Nehal | Kherva    | 100000.00 | YES        |

14. Increase the size 5 to 7 of column acc\_no (Loan table).

```
70 • ALTER TABLE LOAN_24012011161 MODIFY acc_no VARCHAR(7);
71 • DESCRIBE LOAN_24012011161;
```

| Field          | Type          | Null | Key | Default | Extra |
|----------------|---------------|------|-----|---------|-------|
| loan_no        | varchar(5)    | YES  |     | NULL    |       |
| acc_no         | varchar(7)    | YES  |     | NULL    |       |
| loan_amt       | decimal(10,2) | YES  |     | NULL    |       |
| interest_rate  | decimal(5,2)  | YES  |     | NULL    |       |
| loan_date      | date          | YES  |     | NULL    |       |
| remaining_loan | decimal(10,2) | YES  |     | NULL    |       |
| credit_no      | varchar(4)    | YES  |     | NULL    |       |

15. Delete the records whose account no is A004.

```
72 • DELETE FROM ACCOUNT_24012011161 WHERE acc_no = 'A004';
73 • SELECT * FROM ACCOUNT_24012011161;
```

| acc_no | Name          | City      | Balance   | loan_taken | address |
|--------|---------------|-----------|-----------|------------|---------|
| A001   | Patel Hiren   | Mehsana   | 50000.00  | YES        | NULL    |
| A002   | Patel Ramesh  | Mehsana   | 50000.00  | YES        | NULL    |
| A003   | Dave Hardik   | Ahmedabad | 75000.00  | NO         | NULL    |
| A005   | Kothari Nehal | Kherva    | 100000.00 | YES        | NULL    |

16. For each loan holders Increase the interest rate by 2% (Loan table).

```
74 • UPDATE LOAN_24012011161 SET interest_rate = interest_rate + 2;
75 • SELECT * FROM LOAN_24012011161;
```

| loan_no | acc_no | loan_amt  | interest_rate | loan_date  | remaining_loan | credit_no |
|---------|--------|-----------|---------------|------------|----------------|-----------|
| L001    | A001   | 100000.00 | 9.00          | 2004-01-01 | 75000.00       | NULL      |
| L002    | A002   | 300000.00 | 11.00         | 2004-05-18 | 150000.00      | NULL      |
| L003    | A003   | 500000.00 | 13.00         | 2004-06-15 | 300000.00      | NULL      |

17. Display only those records where loan holder taken a loan in month of

January(Loan table).

```
76 SELECT * FROM LOAN_24012011161 WHERE loan_date BETWEEN DATE '2004-01-01' AND DATE '2004-01-31';
```

| loan_no | acc_no | loan_amt  | interest_rate | loan_date  | remaining_loan | credit_no |
|---------|--------|-----------|---------------|------------|----------------|-----------|
| L001    | A001   | 100000.00 | 9.00          | 2004-01-01 | 75000.00       | NULL      |

18. Change the Inst\_Date '2-Feb-21' to '3-Mar-22'.

```
77 UPDATE INSTALLMENT_24012011161 SET inst_date = DATE '2022-03-03' WHERE inst_date = DATE '2004-02-02';
78 SELECT * FROM INSTALLMENT_24012011161;
```

| loan_no | inst_no | inst_Date  | Amount   |
|---------|---------|------------|----------|
| L001    | I001    | 2022-03-03 | 15000.00 |
| L002    | I002    | 2004-06-18 | 20000.00 |
| L003    | I003    | 2004-07-15 | 20000.00 |

19. Display the Loan amount \*2 of table LOAN.

```
79 SELECT loan_no, loan_amt*2 AS double_amount FROM LOAN_24012011161;
```

| loan_no | double_amount |
|---------|---------------|
| L001    | 200000.00     |
| L002    | 600000.00     |
| L003    | 1000000.00    |

20. Change the loan\_amt 100000 to 150000 where loan number is L001. (Loan table).

```
80 UPDATE LOAN_24012011161 SET loan_amt = 150000 WHERE loan_no = 'L001' AND loan_amt = 100000;
81 SELECT * FROM LOAN_24012011161;
```

| loan_no | acc_no | loan_amt  | interest_rate | loan_date  | remaining_loan | credit_no |
|---------|--------|-----------|---------------|------------|----------------|-----------|
| L001    | A001   | 150000.00 | 9.00          | 2004-01-01 | 75000.00       | NULL      |
| L002    | A002   | 300000.00 | 11.00         | 2004-05-18 | 150000.00      | NULL      |
| L003    | A003   | 500000.00 | 13.00         | 2004-06-15 | 300000.00      | NULL      |

21. Display loan\_no, amount of Installment table by date wise.



82 • `SELECT loan_no, amount, inst_date FROM INSTALLMENT_24012011161 ORDER BY inst_date;`

| Result Grid | Filter Rows: | Export:    | Wrap Cell Content: |
|-------------|--------------|------------|--------------------|
| loan_no     | amount       | inst_date  |                    |
| L002        | 20000.00     | 2004-06-18 |                    |
| L003        | 20000.00     | 2004-07-15 |                    |
| L001        | 15000.00     | 2022-03-03 |                    |



22. Select all the records of account table in descending order (account number wise).

83 • `SELECT * FROM ACCOUNT_24012011161 ORDER BY acc_no DESC;`

Result Grid



Filter Rows:

Export: 

Wrap Cell Content: ☐

|   | acc_no | Name          | City      | Balance   | loan_taken | address |
|---|--------|---------------|-----------|-----------|------------|---------|
| ▶ | A005   | Kothari Nehal | Kherva    | 100000.00 | YES        | NULL    |
|   | A003   | Dave Hardik   | Ahmedabad | 75000.00  | NO         | NULL    |
|   | A002   | Patel Ramesh  | Mehsana   | 50000.00  | YES        | NULL    |
|   | A001   | Patel Hiren   | Mehsana   | 50000.00  | YES        | NULL    |

23. Delete a table LOAN\_TEMP.

84 • `DROP TABLE LOAN_TEMP;`  
85 • `SHOW TABLES;`

| Result Grid             | Filter Rows: |
|-------------------------|--------------|
| Tables_in_practical1    |              |
| account_24012011161     |              |
| account_temp            |              |
| installment_24012011161 |              |
| loan_24012011161        |              |
| trans_temp              |              |