Project name: Bank Details

- **Create database bank_info**
- **Create table custo_info**
- **Describe it**


```
XAMPP for Windows - mysql.exe -u root                                                          −

Setting environment for using XAMPP for Windows.
Lenovo@DESKTOP-VO5E4QK c:\xampp
# mysql.exe -u root
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 10
Server version: 10.4.27-MariaDB mariadb.org binary distribution

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> create database bank_info;
Query OK, 1 row affected (0.001 sec)

MariaDB [(none)]> create table custo_info(customer_id varchar(5),customer_name varchar(30),contact_no int, Gender varchar(6),maritial_status varchar(20));
ERROR 1046 (3D000): No database selected
MariaDB [(none)]> use bank_info;
Database changed
MariaDB [bank_info]> create table custo_info(customer_id varchar(5),customer_name varchar(30),contact_no int, Gender varchar(6),maritial_status varchar(20));
Query OK, 0 rows affected (0.269 sec)

MariaDB [bank_info]> describe custo_info;
+-----------------+-------------+------+-----+---------+-------+
| Field           | Type        | Null | Key | Default | Extra |
+-----------------+-------------+------+-----+---------+-------+
| customer_id     | varchar(5)  | YES  |     | NULL    |       |
| customer_name   | varchar(30) | YES  |     | NULL    |       |
| contact_no      | int(11)     | YES  |     | NULL    |       |
| Gender          | varchar(6)  | YES  |     | NULL    |       |
| maritial_status | varchar(20) | YES  |     | NULL    |       |
+-----------------+-------------+------+-----+---------+-------+
5 rows in set (0.013 sec)
```

- **Inser values in custo info**
- **And select all table**

```
MariaDB [bank_info]> insert into custo_info values(01,"shravni bhogle",9547625858,"Female","unmarried"),(02,"rutuja gawand",9546824258,"Female","married"),(03,"shubham
more",8025741692,"male","unmarried"),(04,"vaibhav ahire",9526741502,"male","married"),(05,"pallavi jadhav",8462847516,"Female","married"),(06,"shruti patil",8465712586,
"Female","unmarried"),(07,"omkar pawar",9864712586,"male","married");
Query OK, 7 rows affected, 7 warnings (0.125 sec)
Records: 7  Duplicates: 0  Warnings: 7

MariaDB [bank_info]> select* from custo_info;
+-------------+----------------+------------+--------+----------------+
| customer_id | customer_name  | contact_no | Gender | maritial_status |
+-------------+----------------+------------+--------+----------------+
| 1           | shravni bhogle | 2147483647 | Female | unmarried      |
| 2           | rutuja gawand  | 2147483647 | Female | married        |
| 3           | shubham more   | 2147483647 | male   | unmarried      |
| 4           | vaibhav ahire  | 2147483647 | male   | married        |
| 5           | pallavi jadhav | 2147483647 | Female | married        |
| 6           | shruti patil   | 2147483647 | Female | unmarried      |
| 7           | omkar pawar    | 2147483647 | male   | married        |
+-------------+----------------+------------+--------+----------------+
7 rows in set (0.000 sec)
```

- **Alter one column in custo_info that is DOB.**

```
MariaDB [bank_info]> alter table custo_info add(DOB int);
Query OK, 0 rows affected (0.190 sec)
Records: 0  Duplicates: 0  Warnings: 0

MariaDB [bank_info]> select * from custo_info;
+-------------+----------------+------------+--------+----------------+------+
| customer_id | customer_name  | contact_no | Gender | maritial_status | DOB  |
+-------------+----------------+------------+--------+----------------+------+
| 1           | shravni bhogle | 2147483647 | Female | unmarried      | NULL |
| 2           | rutuja gawand  | 2147483647 | Female | married        | NULL |
| 3           | shubham more   | 2147483647 | male   | unmarried      | NULL |
| 4           | vaibhav ahire  | 2147483647 | male   | married        | NULL |
| 5           | pallavi jadhav | 2147483647 | Female | married        | NULL |
| 6           | shruti patil   | 2147483647 | Female | unmarried      | NULL |
| 7           | omkar pawar    | 2147483647 | male   | married        | NULL |
+-------------+----------------+------------+--------+----------------+------+
7 rows in set (0.000 sec)
```
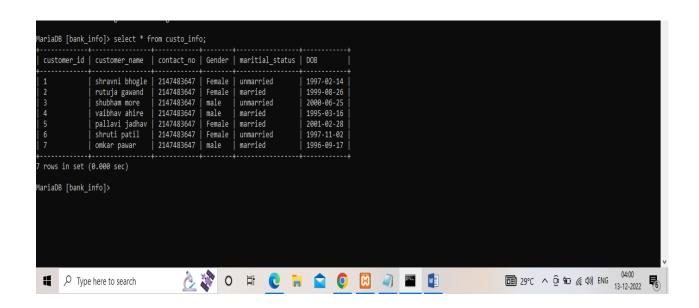
- **Alter column DOB with constrain Date.**

```
MariaDB [bank_info]> alter table custo_info change DOB DOB date;
Query OK, 7 rows affected, 1 warning (0.880 sec)
Records: 7  Duplicates: 0  Warnings: 1

MariaDB [bank_info]> select * from custo_info;
+-------------+----------------+------------+--------+----------------+------------+
| customer_id | customer_name  | contact_no | Gender | maritial_status | DOB       |
+-------------+----------------+------------+--------+----------------+------------+
| 1           | shravni bhogle | 2147483647 | Female | unmarried      | 0000-00-00 |
| 2           | rutuja gawand  | 2147483647 | Female | married        | NULL       |
| 3           | shubham more   | 2147483647 | male   | unmarried      | NULL       |
| 4           | vaibhav ahire  | 2147483647 | male   | married        | NULL       |
| 5           | pallavi jadhav | 2147483647 | Female | married        | NULL       |
| 6           | shruti patil   | 2147483647 | Female | unmarried      | NULL       |
| 7           | omkar pawar    | 2147483647 | male   | married        | NULL       |
+-------------+----------------+------------+--------+----------------+------------+
7 rows in set (0.001 sec)
```

- **Insert values in DOB using update fuction**.

```
MariaDB [bank_info]> update custo_info set DOB=19970214 where customer_id=1;
Query OK, 1 row affected (0.116 sec)
Rows matched: 1  Changed: 1  Warnings: 0

MariaDB [bank_info]> select * from custo_info;
+-------------+----------------+------------+--------+----------------+------------+
| customer_id | customer_name  | contact_no | Gender | maritial_status | DOB       |
+-------------+----------------+------------+--------+----------------+------------+
| 1           | shravni bhogle | 2147483647 | Female | unmarried      | 1997-02-14 |
| 2           | rutuja gawand  | 2147483647 | Female | married        | NULL       |
| 3           | shubham more   | 2147483647 | male   | unmarried      | NULL       |
| 4           | vaibhav ahire  | 2147483647 | male   | married        | NULL       |
| 5           | pallavi jadhav | 2147483647 | Female | married        | NULL       |
| 6           | shruti patil   | 2147483647 | Female | unmarried      | NULL       |
| 7           | omkar pawar    | 2147483647 | male   | married        | NULL       |
+-------------+----------------+------------+--------+----------------+------------+
7 rows in set (0.000 sec)

MariaDB [bank_info]> update custo_name set DOB=19990826 where customer_id=2;
ERROR 1146 (42S02): Table 'bank_info.custo_name' doesn't exist
MariaDB [bank_info]> update custo_info set DOB=19990826 where customer_id=2;
Query OK, 1 row affected (0.113 sec)
Rows matched: 1  Changed: 1  Warnings: 0

MariaDB [bank_info]> update custo_info set DOB=20000625 where customer_id=3;
Query OK, 1 row affected (0.112 sec)
Rows matched: 1  Changed: 1  Warnings: 0

MariaDB [bank_info]> update custo_info set DOB=19950316 where customer_id=4;
Query OK, 1 row affected (0.039 sec)
Rows matched: 1  Changed: 1  Warnings: 0

MariaDB [bank_info]> update custo_info set DOB=20010228 where customer_id=5;
Query OK, 1 row affected (0.115 sec)
Rows matched: 1  Changed: 1  Warnings: 0

MariaDB [bank_info]> update custo_info set DOB=19971102 where customer_id=6;
Query OK, 1 row affected (0.121 sec)
Rows matched: 1  Changed: 1  Warnings: 0

MariaDB [bank_info]> update custo_info set DOB=19960917 where customer_id=7;
Query OK, 1 row affected (0.116 sec)
```

- **Select all table after update the values in the table.**

```
MariaDB [bank_info]> select * from custo_info;
+-------------+----------------+------------+--------+----------------+------------+
| customer_id | customer_name  | contact_no | Gender | maritial_status| DOB        |
+-------------+----------------+------------+--------+----------------+------------+
| 1           | shravni bhogle | 2147483647 | Female | unmarried      | 1997-02-14 |
| 2           | rutuja gawand  | 2147483647 | Female | married        | 1999-08-26 |
| 3           | shubham more   | 2147483647 | male   | unmarried      | 2000-06-25 |
| 4           | vaibhav ahire  | 2147483647 | male   | married        | 1995-03-16 |
| 5           | pallavi jadhav | 2147483647 | Female | married        | 2001-02-28 |
| 6           | shruti patil   | 2147483647 | Female | unmarried      | 1997-11-02 |
| 7           | omkar pawar    | 2147483647 | male   | married        | 1996-09-17 |
+-------------+----------------+------------+--------+----------------+------------+
7 rows in set (0.000 sec)

MariaDB [bank_info]>
```

- **Create and drop one table**

```
MariaDB [bank_info]> create table account_info(account_no int primary key, account_name varchar(20),Foreign key(account_name) references custo_info(customer_name));
Query OK, 0 rows affected (0.290 sec)


MariaDB [bank_info]> drop table account_info;
Query OK, 0 rows affected (0.327 sec)


MariaDB [bank_info]> select * from account_info;
ERROR 1146 (42S02): Table 'bank_info.account_info' doesn't exist
```

- **Add primary key constraint to customer_id in custo_info table.**

```
MariaDB [bank_info]> alter table custo_info add constraint primary key(customer_id);
Query OK, 0 rows affected (0.417 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

- **Create table account_info with constraint**.

```
MariaDB [bank_info]> create table account_info(account_id varchar(20), Foreign key(account_id) References custo_info(customer_id),accont_no int primary key);
Query OK, 0 rows affected (0.516 sec)

MariaDB [bank_info]> insert into account_info values(1,547852366);
Query OK, 1 row affected (0.621 sec)

MariaDB [bank_info]> select* from account_info;
+------------+-----------+
| account_id | accont_no |
+------------+-----------+
| 1          | 547852366 |
+------------+-----------+
1 row in set (0.001 sec)

MariaDB [bank_info]> insert into account_info values(2,568814146),(3,846175965),(4,649528647),(5,684286954),(6,986401206),(7,012304658);
Query OK, 6 rows affected (0.119 sec)
Records: 6  Duplicates: 0  Warnings: 0

MariaDB [bank_info]> select* from account_info;
+------------+-----------+
| account_id | accont_no |
+------------+-----------+
| 1          | 547852366 |
| 2          | 568814146 |
| 3          | 846175965 |
| 4          | 649528647 |
| 5          | 684286954 |
| 6          | 986401206 |
| 7          |  12304658 |
+------------+-----------+
7 rows in set (0.000 sec)

MariaDB [bank_info]>
```

- **Add column account_balance into it with check constraint.**

```
MariaDB [bank_info]> alter table account_info add(account_balance varchar(10) check(char_length(account_balance)>3));
Query OK, 0 rows affected (0.144 sec)
Records: 0  Duplicates: 0  Warnings: 0

MariaDB [bank_info]> select* from account_info;
+------------+------------+-----------------+
| account_id | accont_no  | account_balance |
+------------+------------+-----------------+
| 7          |   12304658 | NULL            |
| 1          |  547852366 | NULL            |
| 2          |  568814146 | NULL            |
| 4          |  649528647 | NULL            |
| 5          |  684286954 | NULL            |
| 3          |  846175965 | NULL            |
| 6          |  986401206 | NULL            |
+------------+------------+-----------------+
7 rows in set (0.001 sec)

MariaDB [bank_info]> update account_info set account_balance=5000 where account_id=1;
```

- **Insert values into account_balance using update function.**

```
7 rows in set (0.001 sec)

MariaDB [bank_info]> update account_info set account_balance=5000 where account_id=1;
Query OK, 1 row affected (0.156 sec)
Rows matched: 1  Changed: 1  Warnings: 0

MariaDB [bank_info]> update account_info set account_balance=10000 where account_id=2;
Query OK, 1 row affected (0.119 sec)
Rows matched: 1  Changed: 1  Warnings: 0

MariaDB [bank_info]> update account_info set account_balance=2000 where account_id=3;
Query OK, 1 row affected (0.115 sec)
Rows matched: 1  Changed: 1  Warnings: 0

MariaDB [bank_info]> update account_info set account_balance=25000 where account_id=3;
Query OK, 1 row affected (0.119 sec)
Rows matched: 1  Changed: 1  Warnings: 0

MariaDB [bank_info]> update account_info set account_balance=2000 where account_id=4;
Query OK, 1 row affected (0.117 sec)
Rows matched: 1  Changed: 1  Warnings: 0

MariaDB [bank_info]> update account_info set account_balance=40000 where account_id=5;
Query OK, 1 row affected (0.117 sec)
Rows matched: 1  Changed: 1  Warnings: 0

MariaDB [bank_info]> update account_info set account_balance=45000 where account_id=6;
Query OK, 1 row affected (0.022 sec)
Rows matched: 1  Changed: 1  Warnings: 0

MariaDB [bank_info]> update account_info set account_balance=50000 where account_id=7;
Query OK, 1 row affected (0.033 sec)
Rows matched: 1  Changed: 1  Warnings: 0
```

- **Select account_id as AID(rename)**
- **Using max, min & avg function**

```
MariaDB [bank_info]> select account_id as AID from account_info;
+------+
| AID  |
+------+
| 1    |
| 2    |
| 3    |
| 4    |
| 5    |
| 6    |
| 7    |
+------+
7 rows in set (0.001 sec)

MariaDB [bank_info]> select max(account_balance) from account_info;
+----------------------+
| max(account_balance) |
+----------------------+
| 50000                |
+----------------------+
1 row in set (0.001 sec)

MariaDB [bank_info]> select avg(account_balance)from account_info;
+----------------------+
| avg(account_balance) |
+----------------------+
|    25285.714285714286 |
+----------------------+
1 row in set (0.107 sec)

MariaDB [bank_info]> select min(account_balance) from account_info;
+----------------------+
| min(account_balance) |
+----------------------+
| 10000                |
+----------------------+
1 row in set (0.008 sec)
```

- **Using round, ceil, floor functions**

```
MariaDB [bank_info]> select round(45.05);
+--------------+
| round(45.05) |
+--------------+
|           45 |
+--------------+
1 row in set (0.002 sec)

MariaDB [bank_info]> select ceil(45.65);
+-------------+
| ceil(45.65) |
+-------------+
|          46 |
+-------------+
1 row in set (0.098 sec)

MariaDB [bank_info]> select round(45.60);
+--------------+
| round(45.60) |
+--------------+
|           46 |
+--------------+
1 row in set (0.000 sec)

MariaDB [bank_info]> select floor(100.65);
+---------------+
| floor(100.65) |
+---------------+
|           100 |
+---------------+
1 row in set (0.000 sec)
```

- **Left outer join**

```
MariaDB [bank_info]> select customer_name,account_balance from custo_info c LEFT OUTER JOIN account_info a ON(c.customer_id=a.account_id);
+---------------+-----------------+
| customer_name | account_balance |
+---------------+-----------------+
| shravni bhogle | 5000           |
| rutuja gawand  | 10000          |
| shubham more   | 25000          |
| vaibhav ahire  | 2000           |
| pallavi jadhav | 40000          |
| shruti patil   | 45000          |
| omkar pawar    | 50000          |
+---------------+-----------------+
7 rows in set (0.092 sec)
```

- **Right outer join using ON**

```
MariaDB [bank_info]> select customer_name,account_balance,maritial_status from custo_info c RIGHT OUTER JOIN account_info a ON(c.customer_id=a.account_id);
+---------------+-----------------+-----------------+
| customer_name | account_balance | maritial_status |
+---------------+-----------------+-----------------+
| omkar pawar    | 50000          | married         |
| shravni bhogle | 5000           | unmarried       |
| rutuja gawand  | 10000          | married         |
| vaibhav ahire  | 2000           | married         |
| pallavi jadhav | 40000          | married         |
| shubham more   | 25000          | unmarried       |
| shruti patil   | 45000          | unmarried       |
+---------------+-----------------+-----------------+
7 rows in set (0.001 sec)
```

-

-   **ORDER BY Clause**
-   **ORDER BY Asc**
-   **ORDER BT Dsc**

-   **GROUP BY**

- **DISTINCT**

```
MariaDB [bank_info]> select DISTINCT account_id  from account_info;
+------------+
| account_id |
+------------+
| 1          |
| 2          |
| 3          |
| 4          |
| 5          |
| 6          |
| 7          |
+------------+
7 rows in set (0.095 sec)
```

- **IN**

- **AND**

- **>=**

- **<=**

```
Database changed
MariaDB [bank_info]> select "mansi" in("shravani,rutuja,pallavi,shubham");
+------------------------------------------+
| "mansi" in("shravani,rutuja,pallavi,shubham") |
+------------------------------------------+
|                                        0 |
+------------------------------------------+
1 row in set (0.000 sec)

MariaDB [bank_info]> select * from account_info where account_balance>=10000 and account_balance<=40000;
+------------+-----------+-----------------+
| account_id | accont_no | account_balance |
+------------+-----------+-----------------+
| 2          | 568814146 | 10000           |
| 5          | 684286954 | 40000           |
| 3          | 846175965 | 25000           |
+------------+-----------+-----------------+
3 rows in set (0.001 sec)
```

-

- **Not IN**

```
MariaDB [bank_info]> select * from custo_info where customer_name not in("shravni bhogle");
+-------------+----------------+------------+--------+----------------+------------+
| customer_id | customer_name  | contact_no | Gender | maritial_status | DOB       |
+-------------+----------------+------------+--------+----------------+------------+
| 2           | rutuja gawand  | 2147483647 | Female | married        | 1999-08-26 |
| 3           | shubham more   | 2147483647 | male   | unmarried      | 2000-06-25 |
| 4           | vaibhav ahire  | 2147483647 | male   | married        | 1995-03-16 |
| 5           | pallavi jadhav | 2147483647 | Female | married        | 2001-02-28 |
| 6           | shruti patil   | 2147483647 | Female | unmarried      | 1997-11-02 |
| 7           | omkar pawar    | 2147483647 | male   | married        | 1996-09-17 |
+-------------+----------------+------------+--------+----------------+------------+
6 rows in set (0.000 sec)
```

- **Like operator**
- **%**
- **___**

```
ERROR 1054 (42522): Unknown column 'custo_info' in 'field list'
MariaDB [bank_info]> select customer_name from custo_info where customer_name like 's%';
+----------------+
| customer_name  |
+----------------+
| shravni bhogle |
| shubham more   |
| shruti patil   |
+----------------+
3 rows in set (0.001 sec)

MariaDB [bank_info]> select customer_name from custo_info where customer_name like '--r%';
Empty set (0.001 sec)

MariaDB [bank_info]> select customer_name from custo_info where customer_name like '__r%%';
+----------------+
| customer_name  |
+----------------+
| shravni bhogle |
| shruti patil   |
+----------------+
2 rows in set (0.000 sec)
```

- **Inner join**

```
ERROR 1054 (42S22): Unknown column 'custo_info.account_id' in 'on clause'
MariaDB [bank_info]> select custo_info.customer_id,account_info.accont_no from custo_info inner join account_info on custo_info.customer_id=account_info.account_id;
+-------------+-----------+
| customer_id | accont_no |
+-------------+-----------+
| 1           | 547852366 |
| 2           | 568814146 |
| 3           | 846175965 |
| 4           | 649528647 |
| 5           | 684286954 |
| 6           | 986401206 |
| 7           |  12304658 |
+-------------+-----------+
7 rows in set (0.001 sec)
```

- **View**

```
MariaDB [bank_info]> create view accountview as select * from account_info where account_id=2;
Query OK, 0 rows affected (0.360 sec)

MariaDB [bank_info]> create view custo_info_view  as select customer_name,contact_no,account_id from custo_info,account_info  where maritial_status='married';
ERROR 1050 (42S01): Table 'custo_info_view' already exists
MariaDB [bank_info]>
```

- **Subquery**

```
ERROR 1054 (42S22): Unknown column 'account_id' in 'IN/ALL/ANY subquery'
MariaDB [bank_info]> select customer_name,customer_id from custo_info where maritial_status=(select maritial_status from custo_info where customer_name="shravni bhogle"
);
+---------------+-------------+
| customer_name | customer_id |
+---------------+-------------+
| shravni bhogle | 1          |
| shubham more   | 3          |
| shruti patil   | 6          |
+---------------+-------------+
3 rows in set (0.001 sec)

MariaDB [bank_info]> select customer_name,customer_id from custo_info where Gender=(select Gender from custo_info where customer_id=4);
+---------------+-------------+
| customer_name | customer_id |
+---------------+-------------+
| shubham more  | 3           |
| vaibhav ahire | 4           |
| omkar pawar   | 7           |
+---------------+-------------+
3 rows in set (0.001 sec)
```

- **Left join**

```
MariaDB [bank_info]> select custo_info.customer_id,custo_info.customer_name,custo_info.Gender,account_info.account_id,account_info.account_balance
    -> from custo_info
    -> left join account_info
    -> on custo_info.customer_id=account_info.account_id;
+-------------+---------------+--------+------------+-----------------+
| customer_id | customer_name | Gender | account_id | account_balance |
+-------------+---------------+--------+------------+-----------------+
| 1           | shravni bhogle | Female | 1         | 5000            |
| 2           | rutuja gawand  | Female | 2         | 10000           |
| 3           | shubham more   | male   | 3         | 25000           |
| 4           | vaibhav ahire  | male   | 4         | 2000            |
| 5           | pallavi jadhav | Female | 5         | 40000           |
| 6           | shruti patil   | Female | 6         | 45000           |
| 7           | omkar pawar    | male   | 7         | 50000           |
+-------------+---------------+--------+------------+-----------------+
7 rows in set (0.001 sec)

MariaDB [bank_info]>
```