

MYSQL Assignment No:1

1) **Create a Database**

- ◆ mysql> CREATE DATABASE Saranya;
Query OK, 1 row affected (0.02 sec)

2) **Show Database**

- ◆ mysql> SHOW DATABASES;
+-----+
| Database |
+-----+
| Saranya |
| information_schema |
| mysql |
| performance_schema |
| sys |
+-----+
5 rows in set (0.02 sec)

3) **Use Database**

- ◆ mysql> USE Saranya;
Database changed

4) **Drop Database**

- ◆ mysql> DROP DATABASE Saranya;
Query OK, 0 rows affected (0.02 sec)

5) **Create tables and Describe that Tables**

- ◆ mysql> CREATE TABLE Student(Roll_no INT NOT NULL PRIMARY KEY, Fname VARCHAR(100) NOT NULL, Surname VARCHAR(100) NOT NULL);
Query OK, 0 rows affected (0.07 sec)

- mysql> SHOW TABLES;
+-----+
| Tables_in_Saranya |
+-----+
| Student |
+-----+
1 row in set (0.00 sec)

- mysql> DESCRIBE Student;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Roll_no | int | NO | PRI | NULL | |
| Fname | varchar(100) | NO | | NULL | |
| Surname | varchar(100) | NO | | NULL | |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.01 sec)

- ◆ mysql> ALTER TABLE Student ADD (Address CHAR(10));
Query OK, 0 rows affected (0.05 sec)
Records: 0 Duplicates: 0 Warnings: 0

- mysql> DESCRIBE Student;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Roll_no | int | NO | PRI | NULL | |
| Fname | varchar(100) | NO | | NULL | |
| Surname | varchar(100) | NO | | NULL | |
| Address | char(10) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

- ◆ mysql> ALTER TABLE Student MODIFY Fname VARCHAR(10);
Query OK, 0 rows affected (0.14 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> DESCRIBE Student;

Field	Type	Null	Key	Default	Extra
Roll_no	int	NO	PRI	NULL	
Fname	varchar(10)	YES		NULL	
Surname	varchar(100)	NO		NULL	
Address	char(10)	YES		NULL	

4 rows in set (0.00 sec)

- ◆ mysql> ALTER TABLE Student DROP COLUMN Surname;
Query OK, 0 rows affected (0.05 sec)
Records: 0 Duplicates: 0 Warnings: 0

- mysql> DESCRIBE Student;

Field	Type	Null	Key	Default	Extra
Roll_no	int	NO	PRI	NULL	
Fname	varchar(10)	YES		NULL	
Address	char(10)	YES		NULL	

3 rows in set (0.00 sec)

6) Alter Command

6.i. Add column address to Customer table

- ◆ mysql> CREATE TABLE CUSTOMER(Cust_id VARCHAR(10) PRIMARY KEY, C_name VARCHAR(15) NOT NULL, City VARCHAR(10));
Query OK, 0 rows affected (0.06 sec)

- mysql> DESCRIBE CUSTOMER;

Field	Type	Null	Key	Default	Extra
Cust_id	varchar(10)	NO	PRI	NULL	
C_name	varchar(15)	NO		NULL	
City	varchar(10)	YES		NULL	

3 rows in set (0.01 sec)

- ◆ mysql> ALTER TABLE CUSTOMER ADD C_Address VARCHAR(30);
Query OK, 0 rows affected (0.04 sec)
Records: 0 Duplicates: 0 Warnings: 0

- mysql> DESCRIBE CUSTOMER;

Field	Type	Null	Key	Default	Extra
Cust_id	varchar(10)	NO	PRI	NULL	
C_name	varchar(15)	NO		NULL	
City	varchar(10)	YES		NULL	
C_Address	varchar(30)	YES		NULL	

4 rows in set (0.01 sec)

6.ii. Modify any column

- ◆ mysql> ALTER TABLE Student MODIFY Fname VARCHAR(10);
Query OK, 0 rows affected (0.14 sec)
Records: 0 Duplicates: 0 Warnings: 0

- mysql> DESCRIBE Student;

```

+-----+-----+-----+-----+-----+-----+
| Field | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Roll_no | int       | NO   | PRI | NULL    |       |
| Fname   | varchar(10) | YES  |     | NULL    |       |
| Surname | varchar(100) | NO   |     | NULL    |       |
| Address | char(10)   | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

```

6.iii. Rename column address to new_address

- ◆ mysql> ALTER TABLE Student RENAME COLUMN fname TO Stu_name;
Query OK, 0 rows affected (0.05 sec)
Records: 0 Duplicates: 0 Warnings: 0

- mysql> DESCRIBE Student;

```

+-----+-----+-----+-----+-----+-----+
| Field | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Roll_no | int       | NO   | PRI | NULL    |       |
| Stu_name | varchar(10) | YES  |     | NULL    |       |
| Address | char(10)   | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.01 sec)

```

6.iv. Drop column address from Customer table

- ◆ mysql> CREATE TABLE CUSTOMER(Cust_id VARCHAR(10) PRIMARY KEY, C_name VARCHAR(15) NOT NULL, City VARCHAR(10), C_Address VARCHAR(30));
Query OK, 0 rows affected (0.06 sec)

- mysql> DESCRIBE CUSTOMER;

```

+-----+-----+-----+-----+-----+-----+
| Field | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Cust_id | varchar(10) | NO   | PRI | NULL    |       |
| C_name  | varchar(15) | NO   |     | NULL    |       |
| City    | varchar(10) | YES  |     | NULL    |       |
| C_Address | varchar(30) | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

```

- ◆ mysql> ALTER TABLE CUSTOMER DROP COLUMN C_Address;
Query OK, 0 rows affected (0.04 sec)
Records: 0 Duplicates: 0 Warnings: 0

- mysql> DESCRIBE CUSTOMER;

```

+-----+-----+-----+-----+-----+-----+
| Field | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Cust_id | varchar(10) | NO   | PRI | NULL    |       |
| C_name  | varchar(15) | NO   |     | NULL    |       |
| City    | varchar(10) | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

```

6.v. Rename table Branch to Branch1

- ◆ mysql> CREATE TABLE BRANCH(Branch_id VARCHAR(5) PRIMARY KEY, B_name VARCHAR(15), City VARCHAR(10));
Query OK, 0 rows affected (0.07 sec)

- mysql> SHOW TABLES;

```

+-----+
| Tables_in_ Saranya |
+-----+
| BRANCH              |
| CUSTOMER             |
| Student              |
+-----+

```

3 rows in set (0.01 sec)

- ◆ `mysql> ALTER TABLE BRANCH RENAME TO BRANCH1;`
Query OK, 0 rows affected (0.04 sec)

- `mysql> SHOW TABLES;`
+-----+
| Tables_in_ Saranya |
+-----+
| BRANCH1 |
| CUSTOMER |
| Student |
+-----+
3 rows in set (0.01 sec)

7) **Perform DCL Commands Grant and Revoke on Customer table**

7.i. **Grant : Gives user access privileges to database.**

- ◆ `sudo mysql -u root;`
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 19
Server version: 8.0.33-0ubuntu0.22.04.2 (Ubuntu)

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

- `mysql> USE Saranya;`
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed

- ◆ `mysql> CREATE USER user1 IDENTIFIED BY 'abc123';`
Query OK, 0 rows affected (0.04 sec)

- ◆ `mysql> GRANT ALL ON CUSTOMER TO user1;`
Query OK, 0 rows affected (0.01 sec)

- `mysql> EXIT`
Bye

- ◆ `sudo mysql -u user1 -p;`
Enter password: abc123
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 21
Server version: 8.0.33-0ubuntu0.22.04.2 (Ubuntu)

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

- `mysql> SHOW DATABASES;`
+-----+
| Database |
+-----+
| Saranya |
| information_schema |
| performance_schema |
+-----+

3 rows in set (0.00 sec)

- `mysql> USE Saranya;`
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed

- ◆ `mysql> SHOW TABLES;`
+-----+
| Tables_in_ Saranya |
+-----+
| CUSTOMER |
+-----+
1 row in set (0.00 sec)

- `mysql> EXIT`
Bye

7.ii. **Revoke** : Take back permissions from user.

- `sudo mysql -u root;`
- `mysql> USE Saranya;`
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed

- ◆ `mysql> REVOKE ALL ON CUSTOMER FROM user1;`
Query OK, 0 rows affected (0.02 sec)

- `mysql> EXIT`
Bye

- ◆ `sudo mysql -u user1 -p;`
Enter password: abc123

- `mysql> SHOW DATABASES;`
+-----+
| Database |
+-----+
| information_schema |
| performance_schema |
+-----+
2 rows in set (0.00 sec)

- `mysql> EXIT`
Bye

8) **Truncate table**

- `mysql> USE Saranya;`
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed

- ◆ `mysql> TRUNCATE TABLE BRANCH1;`
Query OK, 0 rows affected (0.08 sec)

- `mysql> SHOW TABLES;`
+-----+
| Tables_in_ Saranya |
+-----+
| BRANCH1 |
| CUSTOMER |
| Student |
+-----+
3 rows in set (0.00 sec)

- mysql> DESCRIBE BRANCH1;

Field	Type	Null	Key	Default	Extra
Branch_id	varchar(5)	NO	PRI	NULL	
B_name	varchar(15)	YES		NULL	
City	varchar(10)	YES		NULL	

3 rows in set (0.01 sec)
- mysql> SELECT *FROM BRANCH1;
Empty set (0.00 sec)
- ◆ mysql> INSERT INTO BRANCH1 VALUES(1,'CANARA','KOZHIKODE'), (2,'FEDERAL','IDUKKI');
Query OK, 2 rows affected (0.01 sec)
Records: 2 Duplicates: 0 Warnings: 0
- ◆ mysql> SELECT *FROM BRANCH1;

Branch_id	B_name	City
1	CANARA	KOZHIKODE
2	FEDERAL	IDUKKI

2 rows in set (0.01 sec)
- ◆ mysql> TRUNCATE TABLE BRANCH1;
Query OK, 0 rows affected (0.08 sec)
- mysql> SELECT *FROM BRANCH1;
Empty set (0.00 sec)
- mysql> DESCRIBE BRANCH1;

Field	Type	Null	Key	Default	Extra
Branch_id	varchar(5)	NO	PRI	NULL	
B_name	varchar(15)	YES		NULL	
City	varchar(10)	YES		NULL	

3 rows in set (0.01 sec)

9) **Drop table**

- mysql> SHOW TABLES;

Tables_in_Saranya
BRANCH1
CUSTOMER
Student

3 rows in set (0.00 sec)
- ◆ mysql> DROP TABLE CUSTOMER;
Query OK, 0 rows affected (0.04 sec)
- mysql> SHOW TABLES;

Tables_in_Saranya
BRANCH1
Student

2 rows in set (0.00 sec)