**DBMS ASSIGNMENT 1**

**Date – January 23, 2025**

***mysql> show databases;*** *-- Show all databases in MySQL Workbench*

+--------------------+

| Database |

+--------------------+

| information\_schema |

| librarydb |

| management |

| mysql |

| performance\_schema |

| sakila |

| sql\_data |

| syita |

| sys |

| world |

+--------------------+

10 rows in set (0.00 sec)

***mysql> create database university;*** *-- Create a new database named 'university'*

Query OK, 1 row affected (0.00 sec)

***mysql> show databases;*** *-- Verify that 'university' is created*

+--------------------+

| Database |

+--------------------+

| information\_schema |

| librarydb |

| management |

| mysql |

| performance\_schema |

| sakila |

| sql\_data |

| syita |

| sys |

| university |

| world |

+--------------------+

11 rows in set (0.00 sec)

***mysql> use university;*** *-- Switch to the 'university' database*

Database changed

***mysql> create table student(roll\_no integer primary key,name varchar(30), address varchar(30), mob\_no integer(11));*** *-- Create 'student' table with columns and primary key*

Query OK, 0 rows affected, 1 warning (0.01 sec)

***mysql> desc student;*** *-- Describe the structure of 'student' table*

+---------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+---------+-------------+------+-----+---------+-------+

| roll\_no | int | NO | PRI | NULL | |

| name | varchar(30) | YES | | NULL | |

| address | varchar(30) | YES | | NULL | |

| mob\_no | int | YES | | NULL | |

+---------+-------------+------+-----+---------+-------+

4 rows in set (0.00 sec)

***mysql> create table course(c\_id integer, c\_name char(20));*** *-- Create 'course' table*

Query OK, 0 rows affected (0.01 sec)

***mysql> desc course;*** *-- Describe the 'course' table structure*

+--------+----------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+--------+----------+------+-----+---------+-------+

| c\_id | int | YES | | NULL | |

| c\_name | char(20) | YES | | NULL | |

+--------+----------+------+-----+---------+-------+

2 rows in set (0.00 sec)

***mysql> create table enroll(roll\_no integer, c\_id integer, date date);*** *-- Create 'enroll' table to link students and courses*

Query OK, 0 rows affected (0.01 sec)

***mysql> desc enroll;*** *-- Describe the 'enroll' table structure*

+---------+------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+---------+------+------+-----+---------+-------+

| roll\_no | int | YES | | NULL | |

| c\_id | int | YES | | NULL | |

| date | date | YES | | NULL | |

+---------+------+------+-----+---------+-------+

3 rows in set (0.00 sec)

***mysql> alter table course add primary key(c\_id);*** *-- Set 'c\_id' as the primary key for 'course' table*

Query OK, 0 rows affected (0.03 sec)

Records: 0 Duplicates: 0 Warnings: 0

***mysql> alter table course rename to course\_info;*** *-- Rename 'course' table to 'course\_info'*

Query OK, 0 rows affected (0.01 sec)

***mysql> desc course;*** *-- Check 'course' table (should show an error since it was renamed)*

ERROR 1146 (42S02): Table 'university.course' doesn't exist

***mysql> desc course\_info;*** *-- Describe the renamed table 'course\_info'*

+--------+----------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+--------+----------+------+-----+---------+-------+

| c\_id | int | NO | PRI | NULL | |

| c\_name | char(20) | YES | | NULL | |

+--------+----------+------+-----+---------+-------+

2 rows in set (0.00 sec)

***mysql> alter table course\_info add column duration integer;*** *-- Add 'duration' column to 'course\_info'*

Query OK, 0 rows affected (0.01 sec)

Records: 0 Duplicates: 0 Warnings: 0

***mysql> desc course\_info;*** *-- Describe the renamed table 'course\_info'*

+----------+----------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+----------+----------+------+-----+---------+-------+

| c\_id | int | NO | PRI | NULL | |

| c\_name | char(20) | YES | | NULL | |

| duration | int | YES | | NULL | |

+----------+----------+------+-----+---------+-------+

3 rows in set (0.00 sec)

***mysql> insert into student values(1,"Yash Dabhade","Jalna",785694123);*** *-- Insert another record into 'student'*

Query OK, 1 row affected (0.01 sec)

***mysql> insert into student values(2,"Om Jejurkar","Shirdi",879645123);*** *-- Insert another record into 'student'*

Query OK, 1 row affected (0.00 sec)

***mysql> insert into student values(3,"Soham Deshmukh","Parali",987451236);*** *-- Insert another record into 'student'*

Query OK, 1 row affected (0.00 sec)

***mysql> select \* from student;*** *-- Display all records from 'student'*

+---------+----------------+---------+-----------+

| roll\_no | name | address | mob\_no |

+---------+----------------+---------+-----------+

| 1 | Yash Dabhade | Jalna | 785694123 |

| 2 | Om Jejurkar | Shirdi | 879645123 |

| 3 | Soham Deshmukh | Parali | 987451236 |

+---------+----------------+---------+-----------+

3 rows in set (0.00 sec)

***mysql> insert into course\_info values(111,"AIML",4);*** *-- Insert a course into 'course\_info'*

Query OK, 1 row affected (0.00 sec)

***mysql> insert into course\_info values(222,"Cybersecurity",3);*** *-- Insert another course into 'course\_info'*

Query OK, 1 row affected (0.01 sec)

***mysql> insert into course\_info values(333,"Data science",3);*** *-- Insert third course into 'course\_info'*

Query OK, 1 row affected (0.00 sec)

***mysql> select \* from course\_info;*** *-- Display all records from 'course\_info'*

+------+---------------+----------+

| c\_id | c\_name | duration |

+------+---------------+----------+

| 111 | AIML | 4 |

| 222 | Cybersecurity | 3 |

| 333 | Data science | 3 |

+------+---------------+----------+

3 rows in set (0.00 sec)

***mysql> insert into enroll values(1,111,'24-01-25');*** *-- insert record into enroll table*

Query OK, 1 row affected (0.00 sec)

***mysql> insert into enroll values(2,222,'25-01-25');*** *-- insert record into enroll table*

Query OK, 1 row affected (0.00 sec)

***mysql> insert into enroll values(3,333,'26-01-25');*** *-- insert record into enroll table*

Query OK, 1 row affected (0.00 sec)

***mysql> select \* from enroll ;*** *-- Display all records from 'enroll'*

+---------+------+------------+

| roll\_no | c\_id | date |

+---------+------+------------+

| 1 | 111 | 2024-01-25 |

| 2 | 222 | 2025-01-25 |

| 3 | 333 | 2026-01-25 |

+---------+------+------------+

3 rows in set (0.00 sec)

***mysql> alter table enroll add constraint fk\_roll\_no foreign key(roll\_no) references student(roll\_no);*** *-- Add foreign key constraint linking 'enroll.roll\_no' to 'student.roll\_no'*

Query OK, 3 rows affected (0.05 sec)

Records: 3 Duplicates: 0 Warnings: 0

***mysql> alter table enroll add constraint fk\_course foreign key(c\_id) references course\_info(c\_id);*** *-- Add foreign key linking 'enroll.c\_id' to 'course\_info.c\_id'*

Query OK, 3 rows affected (0.05 sec)

Records: 3 Duplicates: 0 Warnings: 0

***mysql> select \* from student where roll\_no = 1;*** *-- Fetch student details where roll\_no is 1*

+---------+--------------+---------+-----------+

| roll\_no | name | address | mob\_no |

+---------+--------------+---------+-----------+

| 1 | Yash Dabhade | Jalna | 785694123 |

+---------+--------------+---------+-----------+

1 row in set (0.00 sec)

***mysql> delete from enroll where roll\_no = 3;*** *-- Delete enrollment of student with roll\_no 3*

Query OK, 1 row affected (0.00 sec)

***mysql> select \* from enroll;*** *-- Display updated enrollments*

+---------+------+------------+

| roll\_no | c\_id | date |

+---------+------+------------+

| 1 | 111 | 2024-01-25 |

| 2 | 222 | 2025-01-25 |

+---------+------+------------+

2 rows in set (0.00 sec)

***mysql> delete from student where roll\_no = 3;*** *-- Delete student with roll\_no 3*

Query OK, 1 row affected (0.01 sec)

***mysql> select \* from student;*** *-- Display remaining students*

+---------+--------------+---------+-----------+

| roll\_no | name | address | mob\_no |

+---------+--------------+---------+-----------+

| 1 | Yash Dabhade | Jalna | 785694123 |

| 2 | Om Jejurkar | Shirdi | 879645123 |

+---------+--------------+---------+-----------+

2 rows in set (0.00 sec)

***mysql> delete from course\_info where c\_name = "Data science";*** *-- Delete course named 'Data science'*

Query OK, 1 row affected (0.00 sec)

***mysql> select \* from course\_info;*** *-- Verify that 'Data science' is deleted*

+------+---------------+----------+

| c\_id | c\_name | duration |

+------+---------------+----------+

| 111 | AIML | 4 |

| 222 | Cybersecurity | 3 |

+------+---------------+----------+

2 rows in set (0.00 sec)

***mysql> alter table enroll drop constraint fk\_roll\_no;*** *-- Remove foreign key constraint on 'roll\_no' in 'enroll'*

Query OK, 0 rows affected (0.01 sec)

Records: 0 Duplicates: 0 Warnings: 0

***mysql> truncate table student;*** *-- Delete all records from 'student' without affecting table structure*

Query OK, 0 rows affected (0.02 sec)

***mysql> select \* from student;*** *-- Verify that 'student' table is empty*

Empty set (0.00 sec)

***mysql> select user from mysql.user;***

+------------------+

| user |

+------------------+

| mysql.infoschema |

| mysql.session |

| mysql.sys |

| root |

+------------------+

4 rows in set (0.00 sec)

***mysql> create user 'user1'@'localhost' identified by 'user123';***

Query OK, 0 rows affected (0.02 sec)

mysql> select user from mysql.user;

+------------------+

| user |

+------------------+

| mysql.infoschema |

| mysql.session |

| mysql.sys |

| root |

| user1 |

+------------------+

5 rows in set (0.00 sec)

***mysql> grant all privileges on \*.\* to 'user1'@'localhost';***

Query OK, 0 rows affected (0.00 sec)

mysql> exit;

Bye

***C:\Users\ameyk>mysql -u user1 -p***

Enter password: \*\*\*\*\*\*\*

Welcome to the MySQL monitor. Commands end with ; or \g.

Your MySQL connection id is 10

Server version: 8.0.40 MySQL Community Server - GPL

Copyright (c) 2000, 2024, Oracle and/or its affiliates.

Oracle is a registered trademark of Oracle Corporation and/or its

affiliates. Other names may be trademarks of their respective

owners.

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

***mysql> show databases;***

+--------------------+

| Database |

+--------------------+

| information\_schema |

| librarydb |

| management |

| mysql |

| performance\_schema |

| sakila |

| sql\_data |

| syita |

| sys |

| university |

| world |

+--------------------+

11 rows in set (0.00 sec)

***mysql> use libraryDB;***

Database changed

***mysql> show tables;***

+---------------------+

| Tables\_in\_librarydb |

+---------------------+

| books |

| borrowedbooks |

| members |

+---------------------+

3 rows in set (0.01 sec)

***mysql> select \* from books;***

+--------+-------------------+----------------+---------+-------+

| BOOKID | TITLE | Author | Price | stock |

+--------+-------------------+----------------+---------+-------+

| 1 | The Alchemist | Paul coleho | 299.99 | 10 |

| 2 | Atomic Values | James clear | 420.99 | 15 |

| 3 | clean code | Robert martin | 550.99 | 8 |

| 4 | Rich dad poor dad | Robert kiyoski | 400.00 | 12 |

| 5 | The programmer | Andrew hunt | 4005.00 | 12 |

+--------+-------------------+----------------+---------+-------+

5 rows in set (0.02 sec)

***mysql> select \* from members;***

+----------+----------------+------------------------+------------+

| MemberId | Name | Email | Joindate |

+----------+----------------+------------------------+------------+

| 1 | Om jejurkar | om@example.com | 2024-10-20 |

| 2 | Yash Dabhade | yashgreat@example.com | 2015-12-23 |

| 3 | Gaurav Gaikwad | gaurya@example.com | 2002-05-24 |

| 4 | Sachin Rathod | sachrathod@example.com | 2011-01-24 |

| 5 | Emily Davis | emilt@example.com | 2003-01-24 |

+----------+----------------+------------------------+------------+

5 rows in set (0.01 sec)

***mysql> select \* from borrowedbooks***

-> ;

+----------+----------+--------+------------+------------+

| Borrowid | Memberid | bookid | borrowdate | returndate |

+----------+----------+--------+------------+------------+

| 1 | 1 | 2 | 2025-01-30 | 2025-02-20 |

| 2 | 2 | 3 | 2025-02-15 | 2025-03-21 |

| 3 | 3 | 4 | 2025-02-15 | 2025-03-22 |

| 4 | 2 | 5 | 2025-03-14 | 2025-04-27 |

| 5 | 3 | 4 | 2025-04-14 | 2025-05-29 |

+----------+----------+--------+------------+------------+

5 rows in set (0.01 sec)

***mysql> exit;***

Bye

***C:\Users\ameyk>mysql -u user1 -p***

Enter password: \*\*\*\*\*\*\*

Welcome to the MySQL monitor. Commands end with ; or \g.

Your MySQL connection id is 13

Server version: 8.0.40 MySQL Community Server - GPL

Copyright (c) 2000, 2024, Oracle and/or its affiliates.

Oracle is a registered trademark of Oracle Corporation and/or its

affiliates. Other names may be trademarks of their respective

owners.

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

***mysql> revoke all privileges on \*.\* from 'user1'@'localhost';***

Query OK, 0 rows affected (0.00 sec)

***mysql> exit;***

Bye

***C:\Users\ameyk>mysql -u user1 -p***

Enter password: \*\*\*\*\*\*\*

Welcome to the MySQL monitor. Commands end with ; or \g.

Your MySQL connection id is 14

Server version: 8.0.40 MySQL Community Server - GPL

Copyright (c) 2000, 2024, Oracle and/or its affiliates.

Oracle is a registered trademark of Oracle Corporation and/or its

affiliates. Other names may be trademarks of their respective

owners.

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

***mysql> show databases;***

+--------------------+

| Database |

+--------------------+

| information\_schema |

| performance\_schema |

+--------------------+