Green University of Bangladesh
Department of Computer Science and Engineering (CSE)
Faculty of Sciences and Engineering
Semester: (Fall, Year:2023), B.Sc. in CSE (Day)

Lab Report NO: 01
Course Title: Database Lab
Course Code: CSE-210 Section: D12

Lab Experiment Name: Introduction to Database and MySQL & Managing MySQL Databases and Tables in MySQL

Student Details

	Name	ID
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Lab Date : 10-03-2023
Submission Date : 10-11-2023
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Lab Report Status

Marks: …… Signature:.....
Comments:..... Date:.....

1.1 PROBLEM - 1

• Create a Database with five or six tables.
• Use all the basic database described in table 1.

1.2 OBJECTIVES/AIM

The main objectives of this lab exercise are:

- To understand the concept of creating database.
- To implement 5 tables with columns.
- To implement all datatype in table5 table.

1.3 IMPLEMENTATION

Code:

```
CREATE DATABASE database1;

CREATE TABLE table1 (roll int, name varchar(20), age int, gender varchar(10));

CREATE TABLE table2 (roll int, name varchar(20), age int, gender varchar(10));

CREATE TABLE table3 (roll int, name varchar(20), age int, gender varchar(10));

CREATE TABLE table4 (roll int, name varchar(20), age int, gender varchar(10));

CREATE TABLE table5 (first_name char(20), last_name varchar(20), id int, roll tinyint,
registration_id bigint, GPA float, CGPA double, student_status boolean, DOB date, passing_year
year);
```

1.4 TEST RESULT / OUTPUT

Figure 1: Database1 with 5 tables. table5 column structure.

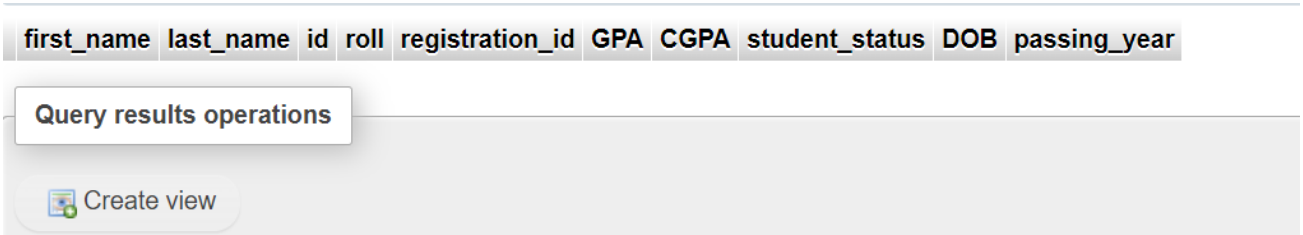


Figure 2: table5 column structure.

1.5 ANALYSIS AND DISCUSSION

The code initiates the creation of a database named "database1" and defines five tables within it. These tables, named table1 to table5, serve as structured containers for storing individual information. The first four tables consist of columns for roll numbers, names, ages, and genders. Table5 has a more intricate structure, with diverse data types to accommodate comprehensive personal information, including names, IDs, academic data, date of birth, and graduation year. The tables establish the groundwork for data storage, but additional actions, such as data population and query logic, are required to realize the database's intended functionality.

2.1 PROBLEM – 2

1. • Create a Database with five tables.

2. • Insert five to ten tuples in each table.
3. • Browse each table and take a snapshot.

2.2 OBJECTIVES/AIM

The main objectives of this lab exercise are:

- To understand how to insert data in tables.
- To understand how implement PRIMARY KEY.

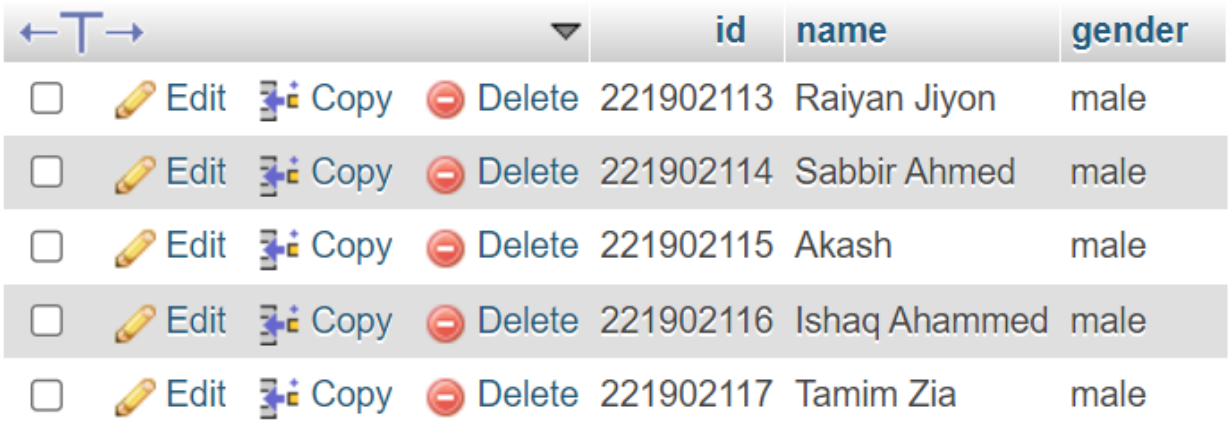
2.3 IMPLEMENTATION

Code:

```
CREATE TABLE database2;
CREATE TABLE student_info (id int PRIMARY KEY, name varchar(20), gender varchar(15) );
CREATE TABLE teacher_info (id int PRIMARY KEY, name varchar(20), gender varchar(15) );
CREATE TABLE staff_info (id int PRIMARY KEY, name varchar(20), gender varchar(15) );
CREATE TABLE manager_info (id int PRIMARY KEY, name varchar(20), gender varchar(15)
);
CREATE TABLE driver_info (id int PRIMARY KEY, name varchar(20), gender varchar(15) );

INSERT INTO student_info
VALUES (221902113, "Raiyan Jiyon", "male"), (221902114, "Sabbir Ahmed", "male"),
(221902115, "Akash", "male"), (221902116, "Ishaq Ahammed", "male"), (221902117, "Tamim
Zia", "male");

INSERT INTO teacher_info
VALUES (221, "Raiyan", "male"), (222, "Sanjida", "female"), (223, "Akash", "male"), (224,
"Ishaq Ahammed", "male"), (225, "Tamim Zia", "male");

INSERT INTO staff_info
VALUES (221, "Rajid", "male"), (222, "Rony", "female"), (223, "Akash", "male"), (224, "Ishaq
", "male"), (225, "Zia", "male");

INSERT INTO manager_info
VALUES (221, "Sumon", "male"), (222, "Rony", "female"), (223, "Mehedi", "male"), (224,
"Islam", "male"), (225, "Zia", "male");
```

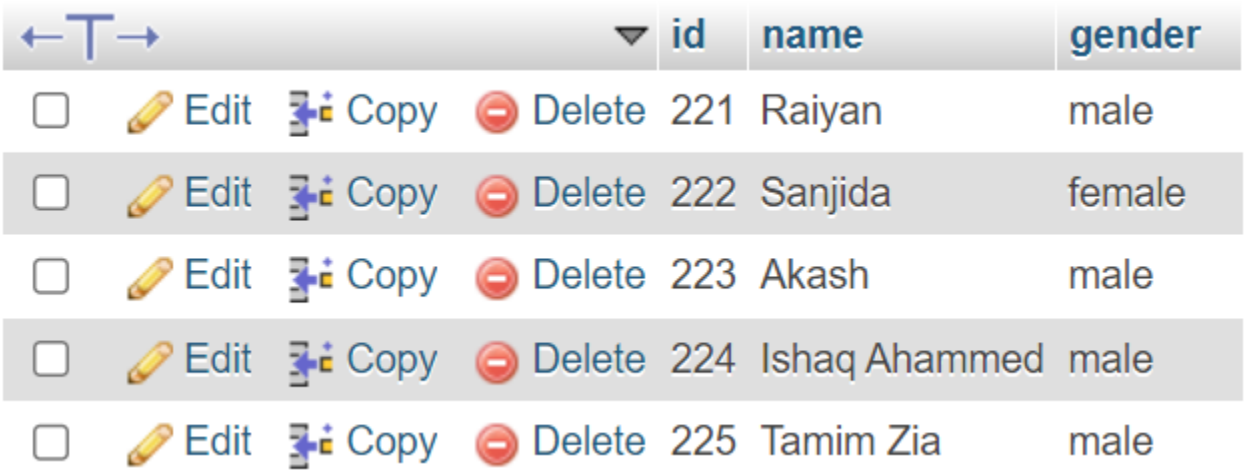
```
INSERT INTO driver_info
VALUES (11, "Arif", "male"), (22, "Rony", "female"), (33, "Mehedi", "male"), (44, "Miraz",
"male"), (55, "Ziaur", "male");
```

2.4 TEST RESULT / OUTPUT



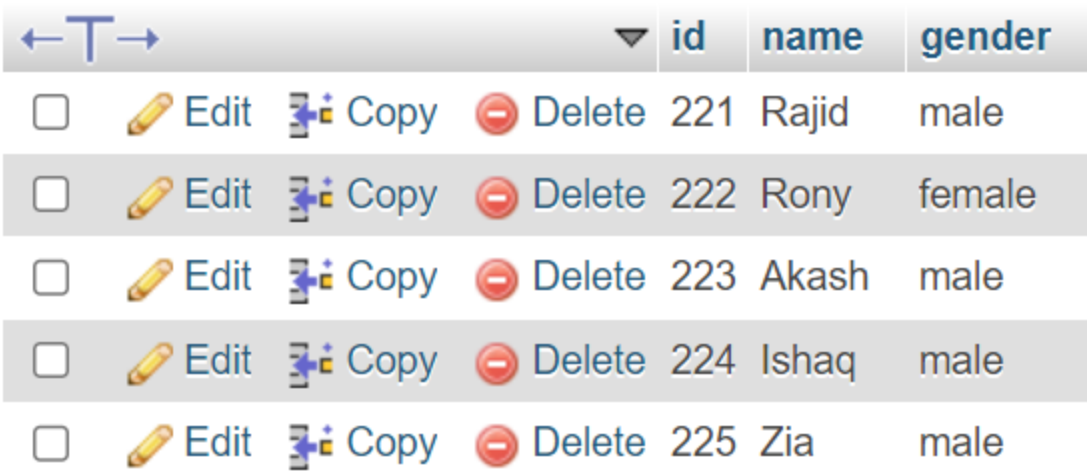
	id	name	gender
Edit Copy Delete	221902113	Raiyan Jiyon	male
Edit Copy Delete	221902114	Sabbir Ahmed	male
Edit Copy Delete	221902115	Akash	male
Edit Copy Delete	221902116	Ishaq Ahammed	male
Edit Copy Delete	221902117	Tamim Zia	male

Figure 3: student_info



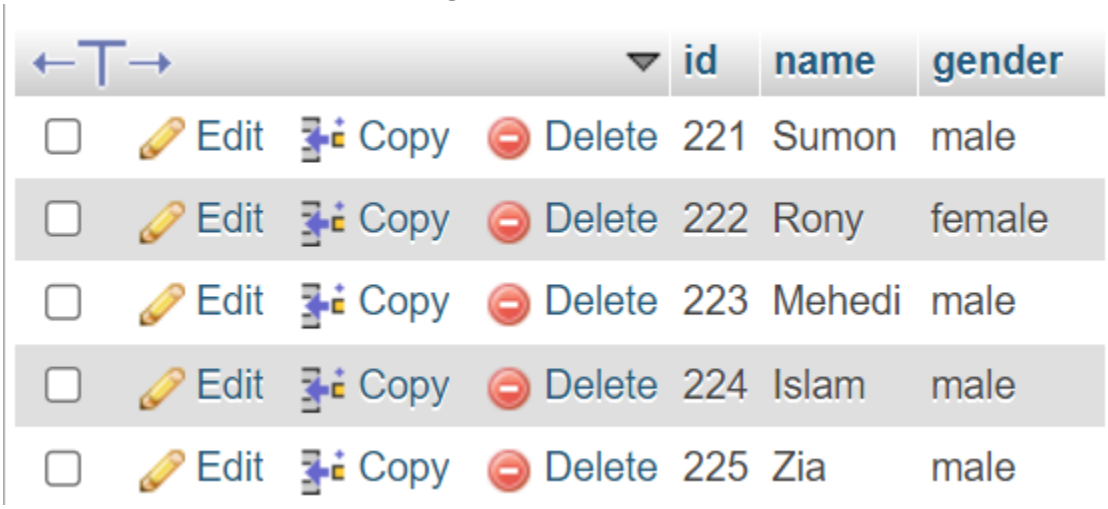
	id	name	gender
Edit Copy Delete	221	Raiyan	male
Edit Copy Delete	222	Sanjida	female
Edit Copy Delete	223	Akash	male
Edit Copy Delete	224	Ishaq Ahammed	male
Edit Copy Delete	225	Tamim Zia	male

Figure 4: teacher_info



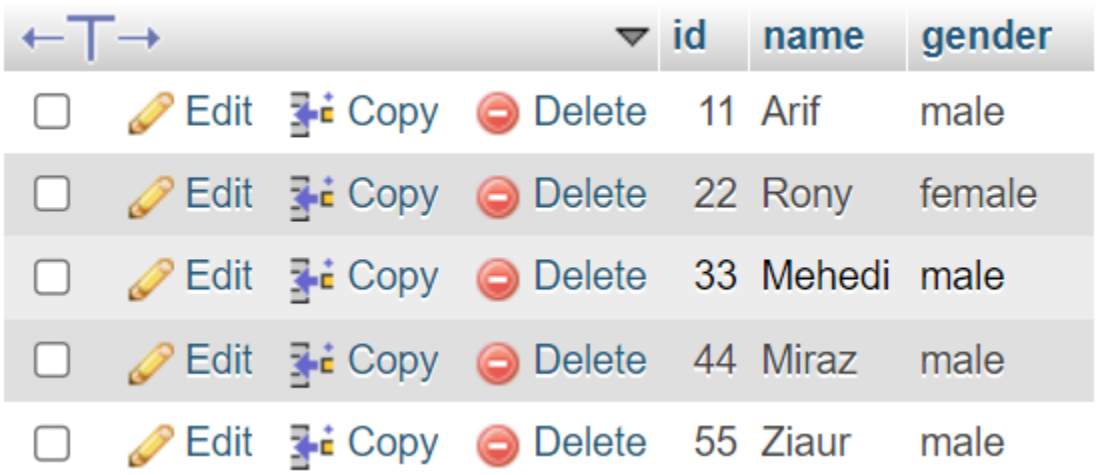
	id	name	gender
Edit Copy Delete	221	Rajid	male
Edit Copy Delete	222	Rony	female
Edit Copy Delete	223	Akash	male
Edit Copy Delete	224	Ishaq	male
Edit Copy Delete	225	Zia	male

Figure 5: staff_info



	id	name	gender
Edit Copy Delete	221	Sumon	male
Edit Copy Delete	222	Rony	female
Edit Copy Delete	223	Mehedi	male
Edit Copy Delete	224	Islam	male
Edit Copy Delete	225	Zia	male

Figure 6: manager_info



	id	name	gender
Edit Copy Delete	11	Arif	male
Edit Copy Delete	22	Rony	female
Edit Copy Delete	33	Mehedi	male
Edit Copy Delete	44	Miraz	male
Edit Copy Delete	55	Ziaur	male

Figure 7: driver_info

2.5 ANALYSIS AND DISCUSSION

The objective of the provided code is to create a database and several related tables for storing information about students, teachers, staff, managers, and drivers. The aim is to establish a structured database to manage data for these different roles. This can be useful in educational institutions or organizations where tracking and managing various individuals' details is essential.

Three key steps to achieve this objective are:

1. Database Creation: The first step involves creating a database named 'database2' to serve as the container for all the related tables. This step ensures that there is a dedicated space for organizing and storing information efficiently.

2. Table Creation: Subsequently, tables are created for each role, namely 'student_info,' 'teacher_info,' 'staff_info,' 'manager_info,' and 'driver_info.' These tables are defined with specific fields such as 'id,' 'name,' and 'gender' to accurately capture and categorize data for each role.

3. Data Insertion: To populate these tables, data is inserted for sample individuals in each category, with their respective 'id,' 'name,' and 'gender.' This step initializes the database with initial information, making it ready for further data management and analysis.

Overall, the goal is to establish a well-structured database with appropriate tables and initial data, providing a foundation for storing and managing information about students, teachers, staff, managers, and drivers, facilitating various data-related tasks within the designated system.