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1Q. You need to create a table named employees in the database to store employee information. Write a Java program using JDBC to create the employees table with the following columns:

id of type INT, which is the primary key and auto-incremented.

first_name of type VARCHAR(50) to store the employee's first name.

last_name of type VARCHAR(50) to store the employee's last name.

age of type INT to store the employee's age.

Ans:

```
package com.naveen.jdbc;

import java.sql.*;

public class EmployeesTable {

	public static void main(String[] args) throws Exception {

		Class.forName("com.mysql.cj.jdbc.Driver");


		String q = "create table Employees(id int auto_Increment primary key,First_Name varchar(50),Last_Name varchar(50),age int);";

	Connection con =
	DriverManager.getConnection("jdbc:mysql://localhost:3306/naveen?useSSL=false", "root", "Naveen@2001");


		 Statement st = con.createStatement();

		 st.executeUpdate(q);

		   System.out.println("Table created successfully...");

		st.close();

		con.close();

	}

}
```

Output:

```
mysql> desc employees;
+------------+-------------+------+-----+---------+----------------+
| Field      | Type        | Null | Key | Default | Extra          |
+------------+-------------+------+-----+---------+----------------+
| id         | int         | NO   | PRI | NULL    | auto_increment |
| First_Name | varchar(50) | YES  |     | NULL    |                |
| Last_Name  | varchar(50) | YES  |     | NULL    |                |
| age        | int         | YES  |     | NULL    |                |
+------------+-------------+------+-----+---------+----------------+
4 rows in set (0.01 sec)
```

2Q. The employees table in the database has the following columns: id, first_name, last_name, and age. Write a Java program using JDBC to insert a new employee record into the table. The employee's first name is "John," last name is "Doe," and age is 30.

Ans:

```
package com.naveen.jdbc;

import java.sql.*;

public class EmployeeTableInsertData {

	public static void main(String[] args) throws Exception {


	Class.forName("com.mysql.cj.jdbc.Driver");

	  String q = "insert into Employees values(1,'John','Doe',30);";


	 Connection con =
	DriverManager.getConnection("jdbc:mysql://localhost:3306/naveen?useSSL=false",
"root", "naveen@2001");


	   Statement st = con.createStatement();


	st.executeUpdate(q);

	                                                    System.out.println("Inserted data
	into the table successfully...");

	    st.close();

	    con.close();

	}
```

}

Output:

```
mysql> select* from employees;
+----+------------+-----------+------+
| id | First_Name | Last_Name | age  |
+----+------------+-----------+------+
|  1 | John       | Doe       |   30 |
+----+------------+-----------+------+
1 row in set (0.00 sec)
```

3Q. Write a Java program that updates the age and designation of an employee with the given name. Assume that the connection to the database is established using the provided url, username, and password. The program should update the age and designation columns for the employee specified by their name.

Ans:

```
package com.naveen.jdbc;

import java.sql.*;

public class EmployeeTableUpdate {

        public static void main(String[] args) throws Exception {


                Class.forName("com.mysql.cj.jdbc.Driver");

        String q = "alter table employees add column designation varchar(50);";

        String q2 = "update employees set age = 35, designation = 'Software_Engineer' where First_Name = 'John';";

        String url = "jdbc:mysql://localhost:3306/naveen?useSSL=false";

        String username = "root";

        String password = "Naveen@2001";

        Connection con = DriverManager.getConnection(url, username, password);


       Statement st = con.createStatement();


        st.executeUpdate(q);

       st.executeUpdate(q1);
```

```
        st.executeUpdate(q2);
      System.out.println("Updated table successfully...");
            st.close();
            con.close();
        }
}
```

Output:

```
mysql> select* from employees;
+----+------------+-----------+------+-------------+
| id | First_Name | Last_Name | age  | designation |
+----+------------+-----------+------+-------------+
|  1 | John       | Doe       |   30 | NULL        |
+----+------------+-----------+------+-------------+
1 row in set (0.00 sec)
```

```
mysql> select* from employees;
+----+------------+-----------+------+-------------------+
| id | First_Name | Last_Name | age  | designation       |
+----+------------+-----------+------+-------------------+
|  1 | John       | Doe       |   35 | Software_Engineer |
+----+------------+-----------+------+-------------------+
1 row in set (0.00 sec)
```

4Q. Write Java program fetching data from emp table query using jdbc with mysql.

Ans:

```
package com.naveen.jdbc;

import java.sql.*;

public class EmployeesFetch {

        public static void main(String[] args) throws Exception  {


                Class.forName("com.mysql.cj.jdbc.Driver");

              Connection con =
        DriverManager.getConnection("jdbc:mysql://localhost:3306/naveen?useSSL=false",
"root", "Naveen@2001");

              Statement st = con.createStatement();


              ResultSet rs = st.executeQuery("SELECT * FROM Employees");


              System.out.println("ID\tFirst_Name\tLast_Name\tAge\tDesignation");

              System.out.println("-----------------------------------------------------------");

             while (rs.next()) {

                 System.out.println(rs.getString(1)+"\t
"+rs.getString(2)+"\t"+rs.getString(3)+"\t"+rs.getDate(4)+"\t"+rs.getString(5));

        //System.out.println(rs.getInt(1)+"\t\t"+rs.getString(2)+"\t\t"+rs.getInt(3)+"\t\t"+rs.get
String(4));

                                }


                        rs.close();
```

```
        st.close();
        con.close();
    }
}
```

Output:

```
mysql> select* from employees;
+----+------------+-----------+------+-------------------+
| id | First_Name | Last_Name | age  | designation       |
+----+------------+-----------+------+-------------------+
|  1 | John       | Doe       |   35 | Software_Engineer |
+----+------------+-----------+------+-------------------+
1 row in set (0.00 sec)
```

5Q. Write Java program for deleting data from emp table using jdbc with mysql.

Ans:

```
package com.naveen.jdbc;
import java.sql.*;
public class EmployeesDelete {
    public static void main(String[] args) throws Exception  {

        Class.forName("com.mysql.cj.jdbc.Driver");

        Connection con =
    DriverManager.getConnection("jdbc:mysql://localhost:3306/naveen?useSSL=false",
"root", "Naveen@2001");
        Statement st = con.createStatement();
        String delete = "delete from Employees";

       System.out.println("Deleted data from the table Successfully....");
       int rows = st.executeUpdate(delete);
       System.out.println("Number of rows deleted: "+rows);

        st.close();
```

```
                con.close();
        }
}
```

Output: