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TOPIC : JDBC CRUD

.1 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:

1, 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.

CODE:

```
package com.ibrahim.jdbc;
        import java.sql.*;
        public class JdbcDemo {

                public static void main(String[] args) throws Exception {
                        try {
                                Class.forName("com.mysql.cj.jdbc.Driver");
                                }
```

```
                                    catch(ClassNotFoundException e) {}

                        //create new table under the jdbccruddb

String sql_query = "create table employee_info(eno int primary key auto_increment ,
first_name varchar(50) , last_name varchar(50), age int);";


//connecting driver

                        Connection
con=DriverManager.getConnection("jdbc:mysql://localhost:3306/jdbcdb","root","root");


        Statement st = con.createStatement();


                st.executeUpdate(sql_query);


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

                                con.close();



                        }


                }
```

OUTPUT:

```
ysql> select * from employee_info;
Empty set (0.01 sec)

ysql> desc employee_info;
+------------+-------------+------+-----+---------+----------------+
| Field      | Type        | Null | Key | Default | Extra          |
+------------+-------------+------+-----+---------+----------------+
| eno        | int(11)     | NO   | PRI | NULL    | auto_increment |
| first_name | varchar(50) | YES  |     | NULL    |                |
| last_name  | varchar(50) | YES  |     | NULL    |                |
| age        | int(11)     | YES  |     | NULL    |                |
+------------+-------------+------+-----+---------+----------------+
4 rows in set (0.01 sec)
```

2, 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.

CODE:

```
package com.ibrahim.jdbc;

import java.sql.*;


public class InsertDemo {


	public static void main(String[] args) throws Exception {
		// TODO Auto-generated method stub
		try {
		Class.forName("com.mysql.cj.jdbc.Driver");
		}
		catch(ClassNotFoundException e) {}


		String url="jdbc:mysql://localhost:3306/jdbcdb";
		String username="root";
		String pwd="root";
		Connection con=DriverManager.getConnection(url,username,pwd);


//insert values in employee data


		String insert_query="insert into employee_info
values(101,'John','Deo',30),(102,'ibrahim','shaik',22),(103,'sri','manchi',22)";
		Statement st=con.createStatement();
```

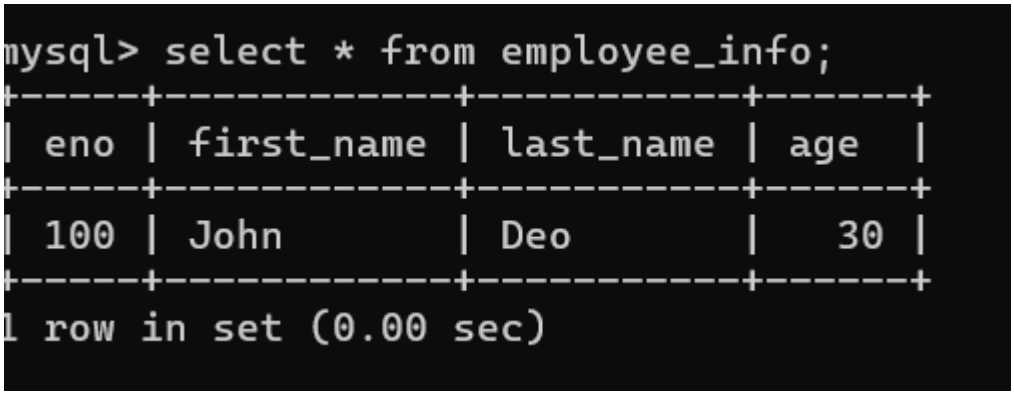
```
            st.executeUpdate(insert_query);
            System.out.println("record inserted successfully");
            con.close();



        }

}
```

OUTPUT:



```
mysql> select * from employee_info;
+-----+------------+-----------+------+
| eno | first_name | last_name | age  |
+-----+------------+-----------+------+
| 100 | John       | Deo       |   30 |
+-----+------------+-----------+------+
1 row in set (0.00 sec)
```

3, 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.

CODE:

```
package com.ibrahim.jdbc;


import java.sql.*;
```

```
public class UpdateEmployee {

	public static void main(String[] args) throws Exception {
		// TODO Auto-generated method stub
		try {
			Class.forName("com.mysql.cj.jdbc.Driver");
			}
			catch(ClassNotFoundException e) {}
			// connection driver

			String url="jdbc:mysql://localhost:3306/jdbcdb";
			String username="root";
			String pwd="root";
			Connection con=DriverManager.getConnection(url,username,pwd);
			// alter column

			String update_query="alter table  employee_info add column
designation VARCHAR(50) ";
			// update age and desigination

			String update_sql="UPDATE employee_info SET age = 20, designation
= 'manager' WHERE first_name = 'sri'";

			Statement st=con.createStatement();
			st.executeUpdate(update_sql);
			System.out.println("record inserted successfully");
			con.close();

	}
```

}

Output:

```
mysql> select* from employee_info;
+-----+------------+-----------+------+
| eno | first_name | last_name | age  |
+-----+------------+-----------+------+
| 101 | jhon       | doe       |   35 |
| 102 | ibrahim    | shaik     |   22 |
| 103 | sri        | manchi    |   22 |
+-----+------------+-----------+------+
```

```
mysql> select* from employee_info;
+-----+------------+-----------+------+-------------+
| eno | first_name | last_name | age  | designation |
+-----+------------+-----------+------+-------------+
| 101 | jhon       | doe       |   35 | NULL        |
| 102 | ibrahim    | shaik     |   22 | NULL        |
| 103 | sri        | manchi    |   20 | manager     |
+-----+------------+-----------+------+-------------+
3 rows in set (0.00 sec)
```

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

Code:

```
package com.ibrahim.jdbc;

import java.sql.*;

public class DisplayEmployee {


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

                // using try catch to handle class not found exception

                try {
```

```
            Class.forName("com.mysql.cj.jdbc.Driver");
                }
            catch(ClassNotFoundException e) {}

        String url="jdbc:mysql://localhost:3306/jdbcdb";
                String username="root";
                String pwd="root";

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

            //sql query to display entire table
        String select_query="select * from employee_info";
        Statement st=con.createStatement();
        ResultSet rs =st.executeQuery(select_query);
                //displaying the table
                while(rs.next())
                                {

    System.out.println(rs.getInt(1)+"\t"+rs.getString(2)+"\t"+rs.getString(3)+"\t"+rs.getInt(4)+"\t"+rs.getString(5));
                                }
                                con.close();

        }

    }
```

Output:

```
mysql> select* from employee_info;
+-----+------------+-----------+------+-------------+
| eno | first_name | last_name | age  | designation |
+-----+------------+-----------+------+-------------+
| 101 | jhon       | doe       |   35 | NULL        |
| 102 | ibrahim    | shaik     |   22 | NULL        |
| 103 | sri        | manchi    |   20 | manager     |
+-----+------------+-----------+------+-------------+
```

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

Code:

```
package com.ibrahim.jdbc;

import java.sql.*;

public class DeleteEmployee

{

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

                                        // using try catch to handle class not found exception

                try {

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

                        }

                        catch(ClassNotFoundException e) {}


                        String url="jdbc:mysql://localhost:3306/jdbcdb";

                        String username="root";

                        String pwd="root";

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

```
//sql query to delete entire table
String delete_query="drop table employee_info";

Statement st=con.createStatement();
int delete_record_row=st.executeUpdate(delete_query);

System.out.println("deleting the table successfully:");

con.close();

}

}
```

Output:

```
mysql> select * from employee_info;
ERROR 1146 (42S02): Table 'jdbccruddb.employee_info' doesn't exist
mysql>
```