Academic Year: 2023-24 **Semester: II** **Class: FYMCA**

Course Code: MC506 **Course Name: Java Programming**

Name: Durgesh Dilip Mandge **UCID : 2023510032**

Experiment No.6

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Problem : Create the Employee Database and make connection using java.

```
import java.sql.*;

public class DatabaseExample {
    private static final String DB_URL =
"jdbc:mysql://localhost:3306/lab5";
    private static final String USER = "root";
    private static final String PASSWORD = "nita";

    public static void main(String[] args) {

        try (Connection conn = DriverManager.getConnection(DB_URL, USER,
PASSWORD)) {
            createTable(conn);
        } catch (SQLException e) {
            e.printStackTrace();
        }

        try (Connection conn = DriverManager.getConnection(DB_URL, USER,
PASSWORD)) {
            // Create operation
            createRecord(conn, "Ram", 22);

            // // Read operation
            readRecords(conn);

            // // Update operation
            updateRecord(conn, 1, "Updated name", 30);

            // // Delete operation
```

```
            // deleteRecord(conn, 2);
        } catch (SQLException e) {
            e.printStackTrace();
        }
    }

    private static void createTable(Connection conn) throws SQLException {
        String sql = "CREATE TABLE IF NOT EXISTS persons ("
                + "id INT AUTO_INCREMENT PRIMARY KEY, "
                + "name VARCHAR(255) NOT NULL, "
                + "age INT NOT NULL)";

        Statement statement = conn.createStatement();
        statement.executeUpdate(sql);
        System.out.println("Table created successfully.");
    }

    private static void createRecord(Connection conn, String name, int
age) throws SQLException {
        String sql = "INSERT INTO persons (name, age) VALUES (?, ?)";
        PreparedStatement statement = conn.prepareStatement(sql);
        statement.setString(1, name);
        statement.setInt(2, age);
        statement.executeUpdate();
        System.out.println("Record created successfully.");
    }

    private static void readRecords(Connection conn) throws SQLException {
        String sql = "SELECT id, name, age FROM persons";
        Statement statement = conn.createStatement();
        ResultSet resultSet = statement.executeQuery(sql);
        while (resultSet.next()) {
            int id = resultSet.getInt("id");
            String name = resultSet.getString("name");
            int age = resultSet.getInt("age");
            System.out.println("ID: " + id + ", Name: " + name + ", Age: "
+ age);
        }
    }
```

```
    private static void updateRecord(Connection conn, int id, String
newName, int newAge) throws SQLException {
        String sql = "UPDATE persons SET name = ?, age = ? WHERE id = ?";
        PreparedStatement statement = conn.prepareStatement(sql);
        statement.setString(1, newName);
        statement.setInt(2, newAge);
        statement.setInt(3, id);
        statement.executeUpdate();
        System.out.println("Record updated successfully.");
    }

    private static void deleteRecord(Connection conn, int id) throws
SQLException {
        String sql = "DELETE FROM persons WHERE id = ?";
        PreparedStatement statement = conn.prepareStatement(sql);
        statement.setInt(1, id);
        statement.executeUpdate();
        System.out.println("Record deleted successfully.");
    }
}
```

OutPut:

```
PS C:\Users\smart\Documents\SPIT-MCA\SPIT-lab\Sem 2\Java\Lab6>  & 'C:\Program Files\Java\jdk-21\bin\java.exe' '@C:\Users\smart\Ap
p_5d29spvsvmdfdsyydwhw0l47b.argfile' 'DatabaseExample'
Table created successfully.
Record created successfully.
ID: 1, Name: Updated name, Age: 30
ID: 2, Name: Updated name, Age: 30
ID: 3, Name: Ram, Age: 22
ID: 4, Name: Ram, Age: 22
ID: 5, Name: Ram, Age: 22
ID: 6, Name: Ram, Age: 22
ID: 7, Name: Ram, Age: 22
Record updated successfully.
PS C:\Users\smart\Documents\SPIT-MCA\SPIT-lab\Sem 2\Java\Lab6>
```