- Explanation of the Code

1. Package declaration

package Task2;

- Places the class inside the Task2 package.

2. Import statement

import java.sql.*;

- Imports JDBC interfaces and classes required for database access.

3. Class definition

public class Select_query {

- Declares the class Select_query.

4. Main method

public static void main(String[] args) {

- Entry point of the Java program.

5. Load Oracle JDBC driver

Class.forName("oracle.jdbc.OracleDriver");

- Loads the Oracle JDBC driver class so JDBC can use it.

6. Database connection details

String url = "jdbc:oracle:thin:@localhost:1521:XE";
String user = "system";
String pass = "12345";

- Specifies the database URL, username, and password.

7. SQL query

String selectqry = "select * from student";

- SQL statement to fetch all records from the student table.

8. Create database connection

Connection con = DriverManager.getConnection(url, user, pass);

- Establishes a connection to the Oracle database.

9. Prepare the SQL statement

PreparedStatement ps = con.prepareStatement(selectqry);

- Creates a PreparedStatement for the SQL query.

10. Execute the query

ResultSet rs = ps.executeQuery();

- Executes the SELECT query.

- Stores the returned rows in a ResultSet.

11.Read data from ResultSet

```
while (rs.next()) {
```

- Moves the cursor to the next row until no rows remain.

```
int id = rs.getInt("id");
String name = rs.getString("name");
int age = rs.getInt("age");
String email = rs.getString("email");
String mobile = rs.getString("mobile");
```

- Retrieves column values from the current row using column names.

12.Print output

```
System.out.println(id + " | " + name + " | " + age + " | " + email + " | " + mobile);
```

- Displays the retrieved student data.

13.Close JDBC resources

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

- Closes the Connection.

14.Exception handling

```
catch (ClassNotFoundException e) {
   e.printStackTrace();
}
```

- Handles the case where the JDBC driver class is not found.

```
catch (SQLException e) {
   e.printStackTrace();
}
```

15. Handles SQL-related errors.

Screenshot of Output: