

The screenshot shows the IntelliJ IDEA interface with the following details:

- Project View:** Shows a project named "Task" with a "src" directory containing "Task1", "Task2", "Task3", "Task4", and "Task5".
- Code Editor:** Task1.java contains Java code to connect to an Oracle database. It prints "Name : Mahesh Nikas" and "Batch : IT", loads the Oracle JDBC driver, establishes a connection with URL "jdbc:oracle:thin:@localhost:1521:xe", user "System", and password "Nikas@^1336".
- Run Tab:** Task1 is selected for execution.
- Output Tab:** Displays the command run, output, and exit status: "Process finished with exit code 0".
- Bottom Status Bar:** Shows the path "Task > src > Task1 > Task1 > main", the time "10:46", encoding "CRLF", and file size "4 spaces".

Task 1 Explanation:

- Loads Oracle JDBC Driver using Class.forName().
- Establishes connection with Oracle database using DriverManager.getConnection().
- Verifies database connectivity.

Sample Input Used: No user input

The screenshot shows the IntelliJ IDEA interface with the following details:

- Project View:** Shows a project named "Task" with a "src" directory containing "Task1", "Task2", "Task3", "Task4", and "Task5".
- Code Editors:** Task1.java and Task2.java are open. Task2.java contains Java code to read student data from a file. It prints "Name : Mahesh Nikas" and "Batch : IT", loads the Oracle JDBC driver, establishes a connection with URL "jdbc:oracle:thin:@localhost:1521:xe", user "System", and password "Nikas@^1336".
- Run Tab:** Task2 is selected for execution.
- Output Tab:** Displays the command run, output, and exit status: "Process finished with exit code 0". The output also shows the student data read from the file:

ID	Name	Age	Percentage
1	Rahul	20	85
2	Priya	21	90
3	Amit	19	78
4	Sneha	22	88
5	Vikas	20	99

- Bottom Status Bar:** Shows the path "Task > src > Task2 > Task2 > main", the time "9:46", encoding "CRLF", and file size "4 spaces".

Task 7

2 Task Explanation:

- Creates JDBC connection.
- Executes SELECT query using Statement.
- Uses ResultSet to fetch and display all student records.

Sample Input Used: No user input

The screenshot shows the IntelliJ IDEA interface with the following details:

- Project View:** Shows a project named "Task" with three Java files: Task1.java, Task2.java, and Task3.java. Task3.java is the active file.
- Code Editor:** Displays the Java code for Task3.java, which creates a connection, prepares an INSERT statement, sets parameters (id=1, name="Mahesh", age=22, marks=99), executes it, and prints the count of rows inserted (1).
- Run Tab:** Set to "Task3".
- Output Tab:** Shows the command used to run the application and the standard output. The output includes:
 - Name : Mahesh Nikas
 - Batch : IT
 - connection Successfully
 - Enter Id
6
 - Enter Name
Mahesh
 - Enter age
22
 - Enter Marks
99
 - 1 ows inserted
- Bottom Status Bar:** Shows the path "Task > src > Task3 > Task3 > main", the timestamp "9:46", and encoding information "CRLF UTF-8 4 spaces".

3 Task Explanation:

- Uses PreparedStatement with INSERT query.
- Accepts Id, Name, Age, Marks from user.
- Executes executeUpdate() to insert record.

Sample Input Used: Id=6, Name=Mahesh, Age=22, Marks=99

The screenshot shows the IntelliJ IDEA interface with the following details:

- Project View:** Shows a tree structure with packages Task1, Task2, Task3, Task4, Task5, and Task6, along with files .gitignore and Task.iml.
- Code Editor:** Task4.java is open, displaying Java code that uses a PreparedStatement to update a database table.
- Run Output:** The terminal shows the execution of the program. It prints the connection URL, user name, batch name, and connection status. It then prompts for an ID (6) and marks (82), and outputs "1 rows updated".
- Status Bar:** Shows the path "Task > src > Task4 > Task4.java", the file encoding "UTF-8", and the line count "1 row".

```
public class Task4 { new*
    public static void main(String[] arg) { new*
        // create connection
        PreparedStatement stmt=con.prepareStatement(sql: "update student set marks=? where Id=?");
        // set value
        stmt.setInt(parameterIndex: 1, Marks);
        stmt.setInt(parameterIndex: 2, id);
        // execute statement
        int count=stmt.executeUpdate();
        System.out.println(count+" rows updated");
        // close connection
        con.close();
        stmt.close();
    }
}
```

```
"C:\Program Files\Java\jdk-23\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2025.2.6\lib\idea_rt.jar=57578" -Dfile.encoding=UTF-8 -Dsun.jnu...
Name : Mahesh Nikas
Batch : IT
connection Successfully
Enter Id
6
Enter Marks
82
1 rows updated
Process finished with exit code 0
```

4 Task Explanation:

- Uses PreparedStatement with UPDATE query.
- Accepts Id and new Marks from user.
- Updates record safely using parameters.

Sample Input Used: Id=6, Marks=82

The screenshot shows the IntelliJ IDEA interface with the following details:

- Project View:** Shows a tree structure with packages Task1, Task2, Task3, Task4, Task5, and Task6, along with files .gitignore and Task.iml.
- Code Editor:** Task5.java is open, displaying Java code that uses a PreparedStatement to delete a record from a database table.
- Run Output:** The terminal shows the execution of the program. It prints the connection URL, user name, batch name, and connection status. It then prompts for an ID (6) and outputs "1 rows deleted".
- Status Bar:** Shows the path "Task > src > Task5 > Task5.java", the file encoding "UTF-8", and the line count "1 row".

```
public class Task5 { new*
    public static void main(String[] arg) { new*
        System.out.println("Enter Id");
        int id=sc.nextInt();

        // create connection
        PreparedStatement stmt=con.prepareStatement(sql: "delete student where Id=?");
        // set value
        stmt.setInt(parameterIndex: 1, id);

        // execute statement
        int count=stmt.executeUpdate();
        System.out.println(count+" rows deleted");
        // close connection
        con.close();
    }
}
```

```
"C:\Program Files\Java\jdk-23\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2025.2.6\lib\idea_rt.jar=57584" -Dfile.encoding=UTF-8 -Dsun.jnu...
Name : Mahesh Nikas
Batch : IT
connection Successfully
Enter Id
6
1 rows deleted
Process finished with exit code 0
```

The screenshot shows the IntelliJ IDEA interface with the following details:

- Project Structure:** The project is named "Task". It contains several Java files: Task1.java, Task2.java, Task3.java, Task4.java, Task5.java, Task6.java, and insert.java. The "out" directory is also visible.
- Code Editor:** Task6.java is open. The code uses a PreparedStatement to update a database. It prints the number of rows inserted and then closes the statement.
- Run Output:** The terminal window shows the execution of the program. It prints:
 - "C:\Program Files\Java\jdk-23\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2025.2.6\lib\idea_rt.jar=64655" -Dfile.encoding=UTF-8 -Dsun.jnu
 - Name : Mahesh Nikas
 - Batch : IT
 - connection Successfully
 - Table already existThen it prompts for an operation:
 - Choose Operation:
 - 1 : Insert
 - 2 : Update
 - 3 : DeleteIt then asks for the ID to update (1), the new city (Shegaon), and confirms 1 row was updated.
- Status Bar:** Shows the time as 69:52, encoding as CRLF, and file encoding as UTF-8.

5 Task Explanation:

- Uses PreparedStatement with DELETE query.
- Accepts Id from user.
- Deletes student record based on Id.

Sample Input Used: Id=6

This screenshot shows the same setup as the first one, but the run output demonstrates the deletion process:

- The terminal shows the same initial connection and table status as before.
- When prompted for the operation, the user selects 3 (Delete).
- It asks for the ID to delete (1).
- It then confirms "1 record deleted".
- The final message is "Process finished with exit code 0".

Task 7

• Task 6

The screenshot shows the IntelliJ IDEA interface with the following details:

- Project Structure:** Shows a file tree with packages like .idea, out, src, and Task1-5.
- Code Editor:** The active file is `Task6.java`. The code implements a `main` method that uses a `PreparedStatement` to insert data into a table named `employee`.
- Run Output:** The terminal window shows the command used to run the application and the resulting output:

```
"C:\Program Files\Java\jdk-23\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2025.2.6\lib\idea_rt.jar=63736" -Dfile.encoding=UTF-8 -Dsun.s...
```

Name : Mahesh Nikas
Batch : IT
connection Successfully
table created

Choose Operation:
1 : Insert
2 : Update
3 : Delete
- Status Bar:** Shows the current time (66:32), file encoding (CRLF), and code style settings (4 spaces).

This screenshot shows the same IntelliJ IDEA setup as above, but with user input and a different run output:

- Code Editor:** The `Task6.java` file is still active.
- Run Output:** The terminal window shows:

```
Name : Mahesh Nikas  
Batch : IT  
connection Successfully  
Table already exist
```

Choose Operation:
1 : Insert
2 : Update
3 : Delete
1
Enter Id:
1
Enter Name:
Mahesh
Enter Email:
mahesh@123gmail.com
Enter City:
Mehkher
Enter Contact:
9356736650

1 row inserted
- Status Bar:** Shows the current time (69:52), file encoding (CRLF), and code style settings (4 spaces).

The screenshot shows the IntelliJ IDEA interface with the following details:

- Project Structure:** The project is named "Task". It contains a "src" directory with files: Task1.java, Task2.java, Task3.java, Task4.java, Task5.java, Task6.java, and insert.java.
- Task6.java Content:** The code implements a main method that inserts a row into a database and then updates it. The update operation is selected (choice == 2).
- Run Output:** The terminal shows the command used to run the program, the connection details (Name: Mahesh Nikas, Batch: IT), and the message "Table already exist".
- Console Output:** The console shows the user choosing an update operation (2), entering an ID (1), entering a new city ("Shegaon"), and the confirmation of 1 row updated.
- Status Bar:** The status bar at the bottom right indicates the time (69:52), encoding (UTF-8), and file encoding (4 spaces).

This screenshot is similar to the first one, but the play button icon in the toolbar is highlighted in blue, indicating the run operation is currently active.

- Project Structure:** The project structure is identical to the first screenshot.
- Task6.java Content:** The code is the same as in the first screenshot.
- Run Output:** The terminal shows the command used to run the program, the connection details (Name: Mahesh Nikas, Batch: IT), and the message "Table already exist".
- Console Output:** The console shows the user choosing an update operation (2), entering an ID (1), entering a new city ("Shegaon"), and the confirmation of 1 row updated.
- Status Bar:** The status bar at the bottom right indicates the time (69:52), encoding (UTF-8), and file encoding (4 spaces).

Task 7

The screenshot shows the IntelliJ IDEA interface with the following details:

- Project Structure:** The project is named "Task". The "src" directory contains several Java files: Task1, Task2, Task3, Task4, Task5, Task6, and Task7. Task7 is currently selected.
- Code Editor:** The code for Task7.java is displayed. It contains Java code for updating a database table. The code uses a PreparedStatement to update the "contact" field for an employee with a given ID. It prompts the user for the employee ID and contact number, then prints the count of rows updated.
- Run Output:** The terminal window shows the execution of the program. It asks for "For update", then "Enter the employee id", which is "2". It then asks "Enter the employee contact", which is "1234567894". The output shows "1 row updated".
- Status Bar:** The status bar at the bottom right shows "54:1 CRLF UTF-8 4 spaces".

The screenshot shows the IntelliJ IDEA interface with the following details:

- Project Structure:** The project is named "Task". The "src" directory contains several Java files: Task1, Task2, Task3, Task4, Task5, Task6, and Task7. Task7 is currently selected.
- Code Editor:** The code for Task7.java is displayed. It contains Java code for updating a database table. The code uses a PreparedStatement to update the "contact" field for an employee with a given ID. It prompts the user for the employee ID and contact number, then prints the count of rows updated.
- Run Output:** The terminal window shows the execution of the program. It asks for "Name : Mahesh Nikas", "Batch : IT", and "connection Successfully". It then asks "Insert value for inserting..". The user enters "Enter Id: 4", "Enter Name: Mahesh", "Enter Email: mahesh@gmail.com", "Enter City: Mehker", and "Enter Contact: 9356736650". The output shows "1Row inserted".
- Status Bar:** The status bar at the bottom right shows "54:1 CRLF UTF-8 4 spaces".

Task 7