

CSIT751 (Core Java)

Module VI – Database Programming using JDBC

Practical Home Assignment: Java Swing with JDBC Desktop Application

Develop a **simple Employee Management** desktop application using **Java Swing** for the user interface and **JDBC** to connect to a MySQL database.

Requirements:

1. Java Swing Frontend:

- Create a form with fields to **Add a New Employee**:
 - Employee ID (integer)
 - Name (text)
 - Department (text)
 - Salary (decimal)
- A **Submit** button to save the employee data into the database.
- A **View All Employees** button to display all employee records in a table within the Swing window.

2. MySQL Database:

- Database name: company_db
- Table: employees
- Table structure:

```
employees (  
    emp_id INT PRIMARY KEY,  
    name VARCHAR(100),  
    department VARCHAR(50),  
    salary DECIMAL(10,2)  
)
```

3. JDBC Backend:

- Connect to the MySQL database using JDBC.
- Insert new employee records on form submission.
- Retrieve and display all employee records in the table on button click.

Directory Structure:

```
EmployeeManagement/  
|  
├── src/  
│   ├── com/example/  
│   │   ├── EmployeeForm.java      (Swing frontend)  
│   │   └── EmployeeDAO.java        (JDBC logic)  
│   └──   
└── lib/  
    └── mysql-connector-java.jar    (JDBC driver)
```