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Experiment – 6 (Part – a) :

Title

Connecting to MySQL and Fetching Data from a Table.

Objective

To develop a Java program that connects to a MySQL database and retrieves data from a single table using JDBC.

Task Description

This task introduces basic JDBC connectivity to perform a **read operation**:

- Use DriverManager to load the JDBC driver and connect to the database.
- Use Connection, Statement, and ResultSet to execute SQL commands.
- Target a table named **Employee** with columns: EmpID, Name, and Salary.
- Write and execute a SELECT query to fetch all records from the table.
- Display each record using a loop to demonstrate the output clearly.

This exercise helps build foundational skills for working with JDBC and SQL databases in Java.

Code :

```
import java.sql.*; // Importing all JDBC classes

public class FetchEmployeeData {
    public static void main(String[] args) {
        // Step 1: Define database connection details
        String url = "jdbc:mysql://localhost:3306/companydb"; // Database name: companydb
        String username = "root"; // MySQL username
        String password = "your_password"; // MySQL password

        try {
            // Step 2: Load and register the JDBC driver
            Class.forName("com.mysql.cj.jdbc.Driver");

            // Step 3: Establish connection
            Connection con = DriverManager.getConnection(url, username, password);
            System.out.println("☑ Connected to the database successfully!");

            // Step 4: Create a SQL query
            String query = "SELECT EmpID, Name, Salary FROM Employee";
        }
    }
}
```

```
// Step 5: Create a Statement object
Statement stmt = con.createStatement();

// Step 6: Execute query and store result
ResultSet rs = stmt.executeQuery(query);

// Step 7: Process and display data
System.out.println("\nEmployee Records:");
System.out.println("-----");
while (rs.next()) {
    int id = rs.getInt("EmpID");
    String name = rs.getString("Name");
    double salary = rs.getDouble("Salary");

    System.out.println("EmpID: " + id + ", Name: " + name + ", Salary: " +
salary);
}

// Step 8: Close resources
rs.close();
stmt.close();
con.close();
System.out.println("\n Data retrieved and connection closed.");

} catch (Exception e) {
```

```
        e.printStackTrace();  
    }  
}  
}
```

Output :

```
✓ Connected to the database successfully!  
  
Employee Records:  
-----  
EmpID: 101, Name: Rohan Sharma, Salary: 55000.0  
EmpID: 102, Name: Priya Mehta, Salary: 62000.0  
EmpID: 103, Name: Arjun Singh, Salary: 58000.0  
EmpID: 104, Name: Neha Kapoor, Salary: 60000.0  
EmpID: 105, Name: Karan Patel, Salary: 54000.0  
  
✓ Data retrieved and connection closed.
```