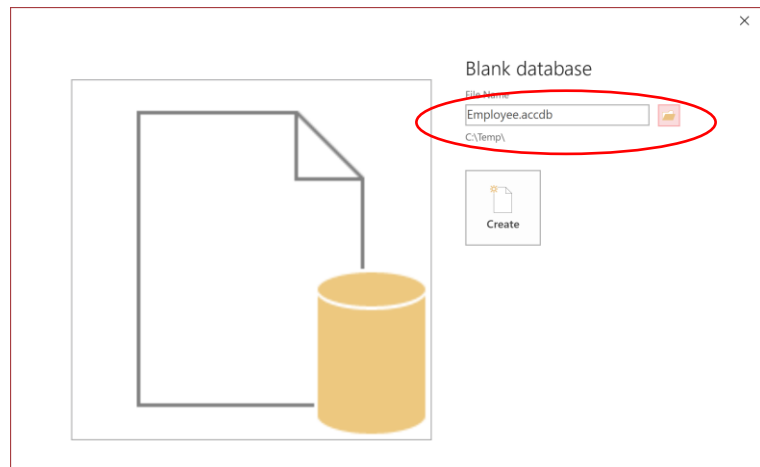
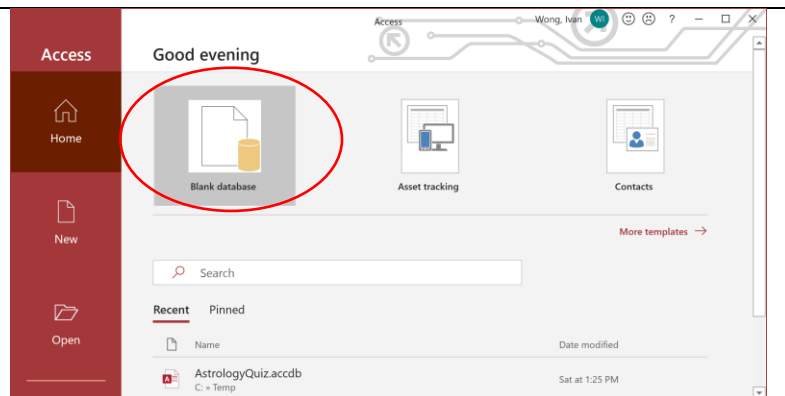


JDBC with MS Access Tutorial

Step 1: Creating a database (MS Access)

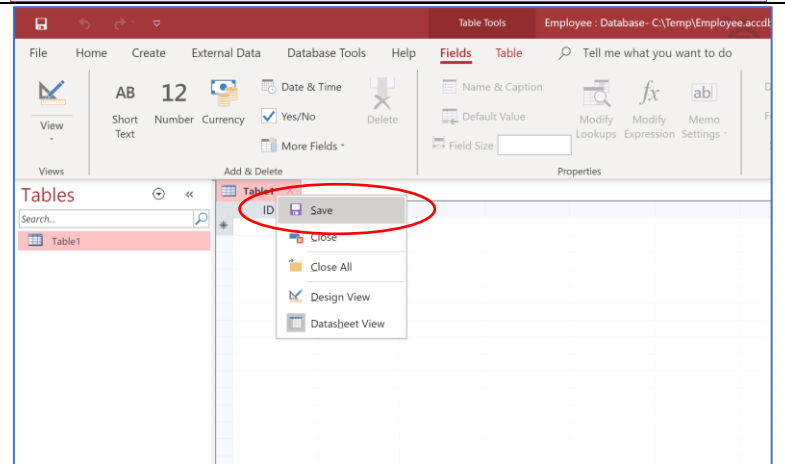
Open MS Access

Name your database, e.g.,
C:\Temp\Employee.accdb, then
click Create



2. Creating a table

Right-click the table and choose
Save



Save the table as Employee

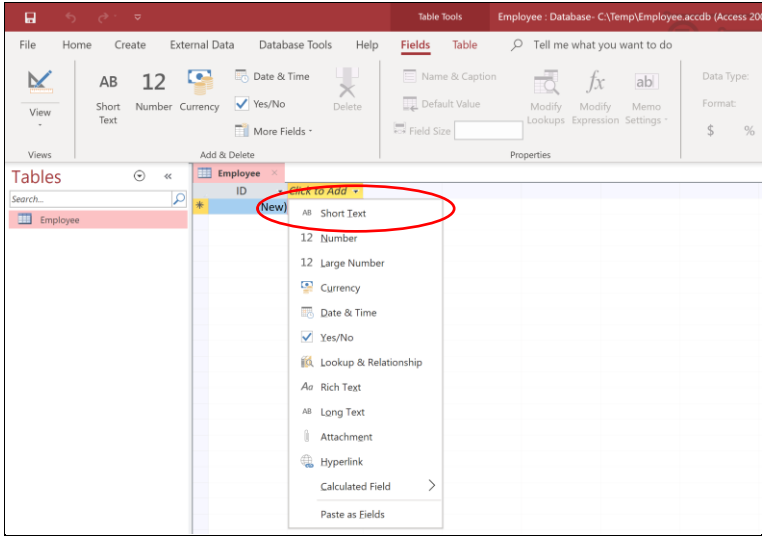
Save As

Table Name:

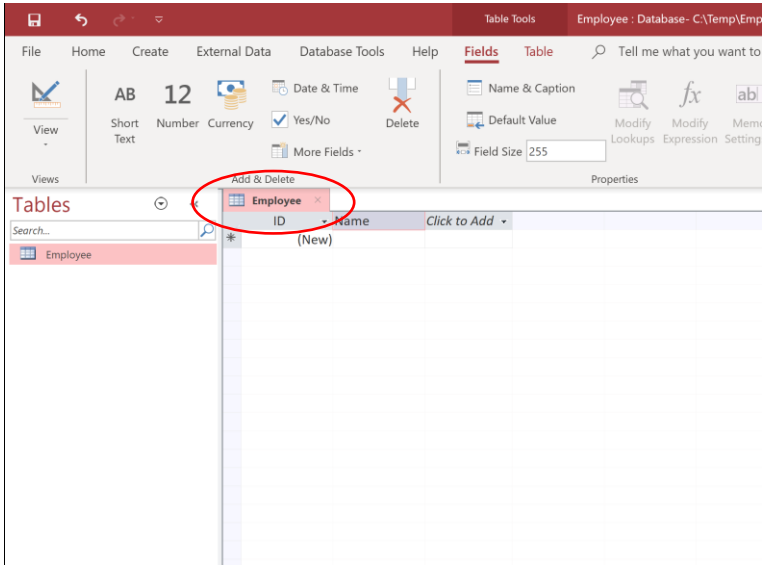
Employee

OK Cancel

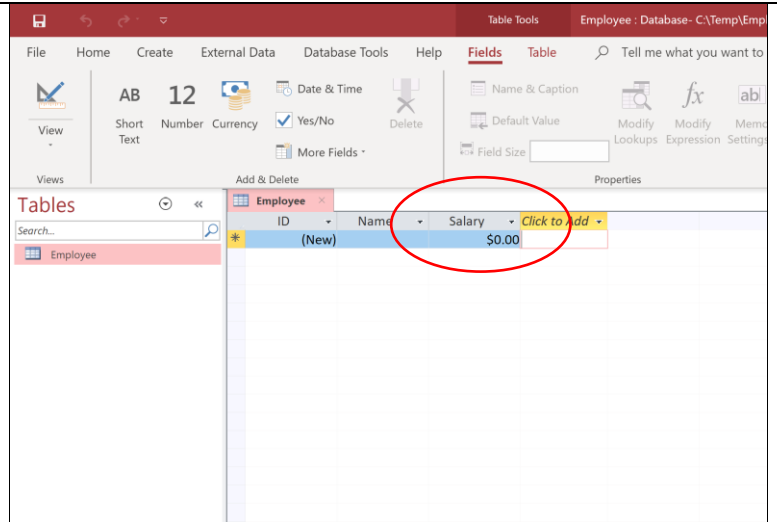
Click a Field (Click to Add) to add and choose Short Text



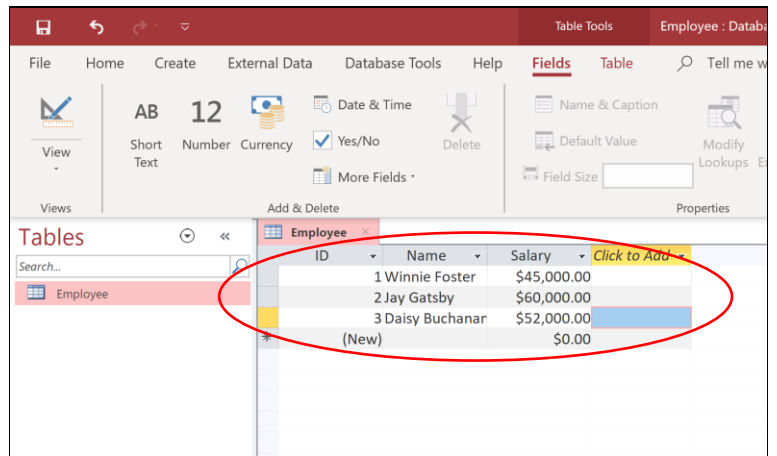
Input Name as the Field



Repeat and choose Currency to add the Field Salary



Input some records to the table



Save the table, and close the database

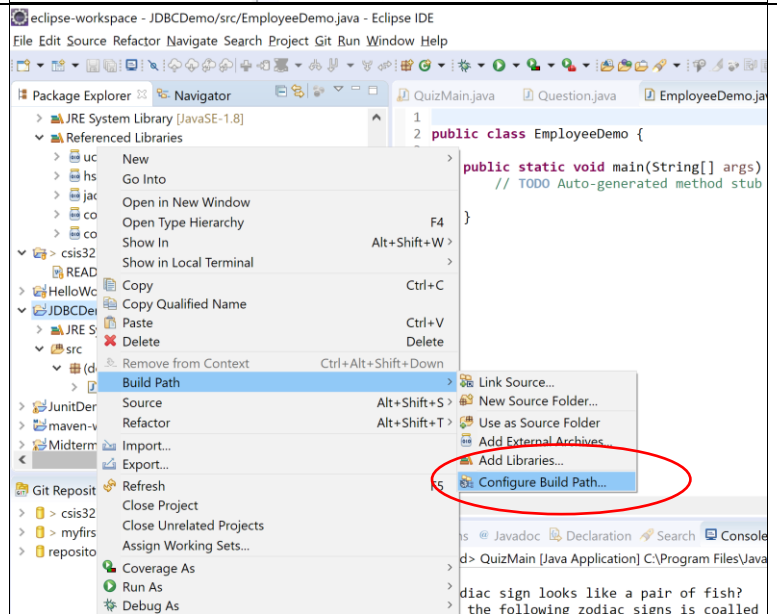
Step 3: Add JDBC jar files to your project

Open Eclipse and create a Java Project (e.g., JDBCDemo)

Create a Class EmployeeDemo with the main method.

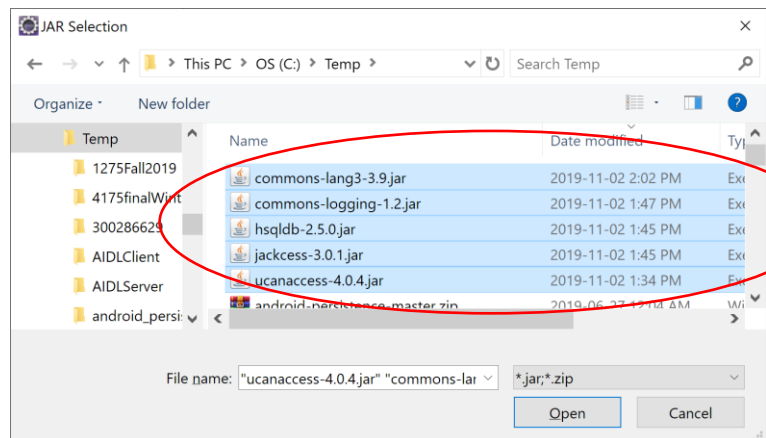
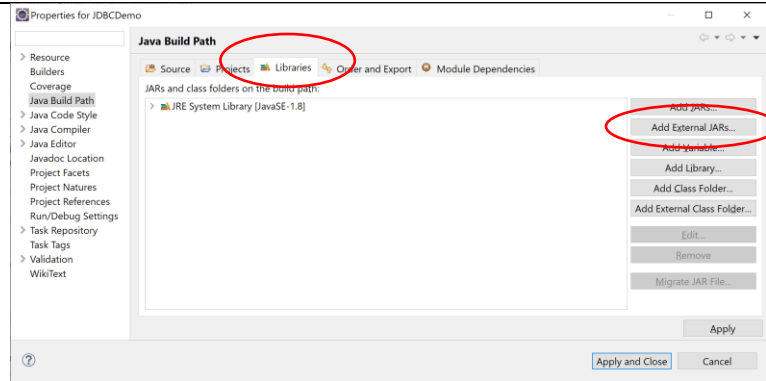
Download the following .jar files from Blackboard to a folder in your PC (e.g., C:\Temp):

- *ucanaccess-4.0.4.jar*
- *jackcess-3.0.1.jar*
- *hsqldb-2.5.0.jar*
- *commons-logging-1.2.jar*
- *commons-lang3-3.9.jar*



Right-click the project, Choose Build Path, Configure Build Path
In the Libraries Tab, click the button Add External JARs

Choose the five JAR files downloaded before, click open, then Apply and Close



Step 4: Retrieve database records

The code shows how to connect to the database and retrieve records

```
// variables
Connection connection = null;
Statement statement = null;
ResultSet resultSet = null;

// Step 1: Loading or registering ucanaccess
// JDBC driver class
try {
    Class.forName(
        "net.ucanaccess.jdbc.UcanaccessDriver");
} catch (ClassNotFoundException cnfex) {
    System.out.println("Problem in loading or " +
        "registering MS Access JDBC driver");
    cnfex.printStackTrace();
}

try {
    String msAccDB = "C:/Temp/Employee.accdb";
    String dbURL = "jdbc:ucanaccess://" +
        msAccDB;

    // Step 2.A: Create and get connection
    // using DriverManager class
    connection =
        DriverManager.getConnection(dbURL);

    // Step 2.B: Creating JDBC Statement
    statement = connection.createStatement();
```

	<pre> // Step 2.C: Executing SQL & retrieve // data into ResultSet resultSet = statement.executeQuery("SELECT * FROM EMPLOYEE"); while (resultSet.next()) { int id = resultSet.getInt(1); String name = resultSet.getString(2); Double salary = resultSet.getDouble(3); System.out.println("Employee #" + id + ": " + name + ", " + salary); } } catch (SQLException sqlex) { sqlex.printStackTrace(); } finally { // Step 3: Closing database connection try { if (connection != null) { // cleanup resources, once // after processing resultSet.close(); statement.close(); // and then finally close connection connection.close(); } } catch (SQLException sqlex) { sqlex.printStackTrace(); } } </pre>
Step 5: Insert a record	<pre> String insertSQL = "INSERT INTO EMPLOYEE (NAME, SALARY) " + "VALUES ('SIMON LI', 90000)"; statement.executeUpdate(insertSQL); </pre>
Step 6: Update a record	<pre> String updateSQL = "UPDATE EMPLOYEE SET SALARY = 120000 " + "WHERE NAME='SIMON LI'"; statement.executeUpdate(updateSQL); </pre>