INSTRUCTIONS FOR RUNNING THE PROJECT

(These instructions are all for Windows.)

1) **Installation Requirements**

   1) MySQL

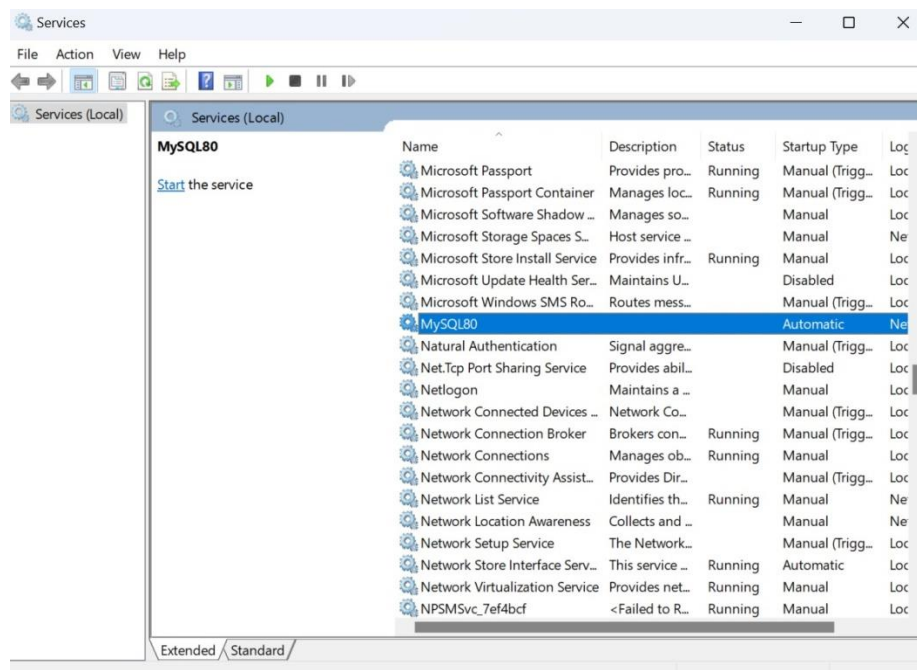   **2)** MinGW-w64 (64-bit compiler of C++)

2) **Setup**

   1) Press the Windows key
   2) Search for **services**
   3) Search for MySQL
   4) Click on **Start** the service

5) Open MySQL workbench and create a new connection

6) Execute the code given in the MySQLCode.txt file

7) In Assignment.java change the password field with the local system's SQL root password
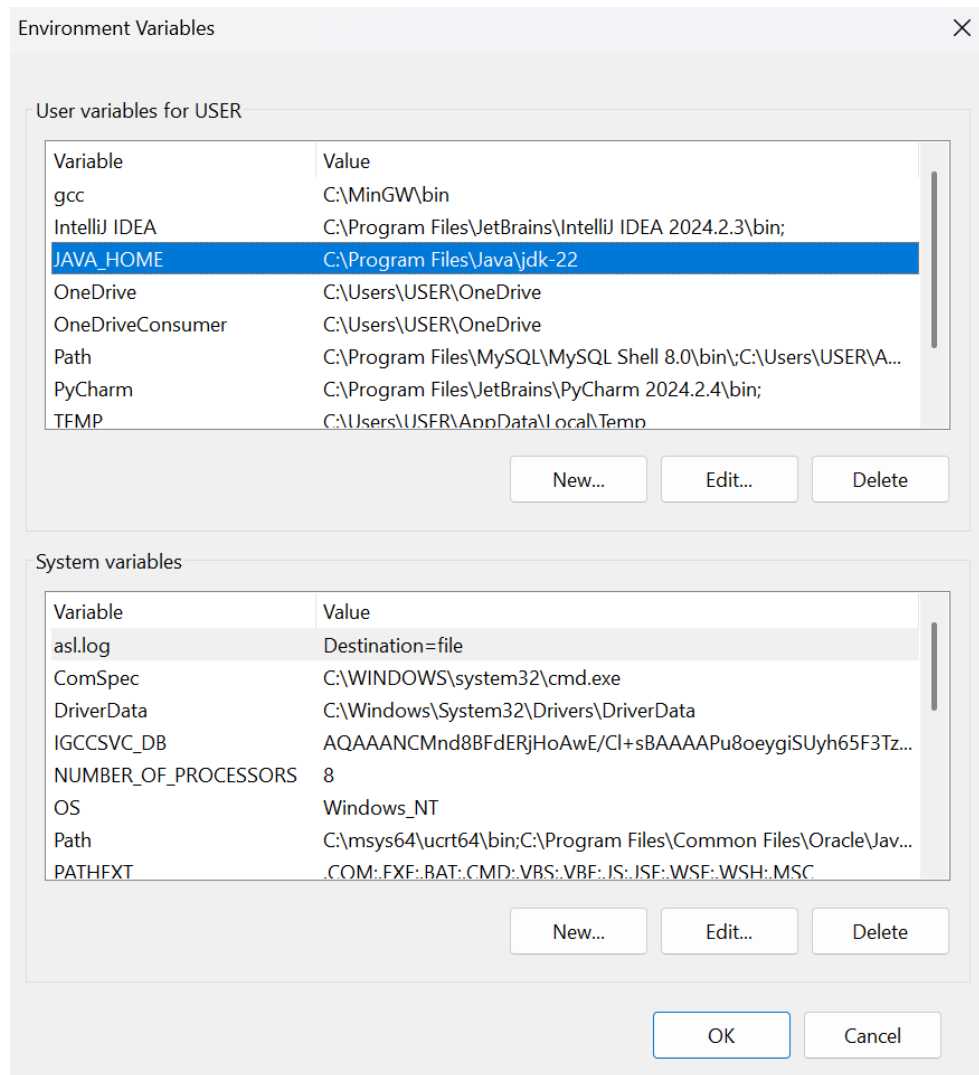
```java
public class Assignment {
    public static Connection establish() throws SQLException, ClassNotFoundException{
        Class.forName(className:"com.mysql.jdbc.Driver");
        System.out.println(x:"Driver loaded");
        Connection con= DriverManager.getConnection(url:"jdbc:mysql://127.0.0.1:3306/company",
        user:"root",password:"MySQL@009");
        System.out.println(x:"Connection established");
        return con;
    }
```

8) In AuthDb.java also do the same

```java
public static Connection establishConnection() throws ClassNotFoundException,
SQLException {
    Class.forName(className:"com.mysql.cj.jdbc.Driver");
    System.out.println(x:"Database loaded");
    Connection con=DriverManager.getConnection(url:"jdbc:mysql://localhost:3306/company",
    user:"root",password:"MySQL@009");
    System.out.println(x:"Connection established");
    return con;
}
```

9) Find the path to your JDK

10) Again open edit the system variables and click on environment variables.

11) In user variables click new and set the variable name as JAVA_HOME and the

variable value as the path of JDK

10) Under system variables click on the variable **Path** and click on edit

11) Move the path of MinGW-w64 above all of them using the move up button

Edit environment variable   ✕

C:\msys64\ucrt64\bin	New
C:\Program Files\Common Files\Oracle\Java\javapath	
%SystemRoot%\system32	Edit
%SystemRoot%	
%SystemRoot%\System32\Wbem	Browse...
%SYSTEMROOT%\System32\WindowsPowerShell\v1.0\	
%SYSTEMROOT%\System32\OpenSSH\	Delete
C:\Program Files\dotnet\	
C:\MinGW\bin	
C:\Program Files\Git\cmd	Move Up
C:\Program Files\Cloudflare\Cloudflare WARP\	
C:\Program Files\MATLAB\R2024a\bin	Move Down
c:\users\user\appdata\local\programs\python\python312\lib\site-...	
C:\Program Files\Neovim\bin	
	Edit text...

OK   Cancel

3) Commands to run the project

1) INSIDE PROJECT DIRECTORY:
javac -d build -cp "allJar/*" src/gui/*.java src/Java_Main/*.java src/db/*.java

2) INSIDE JAVA_MAIN DIRECTORY (INSIDE SRC FOLDER)
"C:\msys64\ucrt64\bin\g++.exe" -shared -m64 -I"%JAVA_HOME%\include" -I"%JAVA_HOME%\include\win32" -o ..\build\library_jni.dll assignProjectsJNI.cpp

(In the quotes keep the path of MinGW-w64 of your system till bin folder and append\g++.exe) This command explicitly tells the system to create a 64-bit dll as MinGW is by default 32 bit and Java is 64-bit so it will create compatibility issues

3) INSIDE SRC FOLDER

java -Djava.library.path=../build -cp
../build;../allJar/*.jar;C:\Users\USER\Downloads\
Project\Project\allJar\mysql-connector-j-
9.1.0.jar;C:\Users\USER\Downloads\Project\Proj
ect\allJar\jBCrypt-
0.4.1.jar;C:\Users\USER\Downloads\Project\Proj
ect\allJar\jcalendar-tz-1.3.3-
4.jar;C:\Users\USER\Downloads\Project\Project\
allJar\json-
20140107.jar;C:\Users\USER\Downloads\Project
\Project\allJar\gson-
2.11.0.jar;C:\Users\USER\Downloads\Project\Pro
ject\allJar\ResultSet2xml.jar;C:\Users\USER\Dow
nloads\Project\Project\allJar\mail-1.4.7.jar
Gui/Main

In this command after the first semicolon write
the absolute path of each jar file in the allJar
directory and separate each absolute path by a
semicolon