**JAVA**

**Installation Instructions**

1. **6Java**

* Download jdk 1.8 from <http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html>
* Install java
* Download Java Runtime Env

<http://www.oracle.com/technetwork/java/javase/downloads/jre8-downloads-2133155.html>

* Install JRE

1. **MySQL server - Windows**

* Go to - <https://dev.mysql.com/downloads/>
* Choose “MySQL Community Server”
* Scroll down and choose “Go to Downloads page” below the image and next to Windows (x86, 32 and 64 bit). Do not click on any options of “Other Downloads”.
* Click on “**Windows (x86, 32-bit), MSI Installer”** that has the highest size (~378 MB)
* Double click the file after installation and follow instructions
  + - Agree license agreement
* Setup type - choose developer default ( if a dialog box pops up asking for product requirements not being satisfied) choose ‘continue’
* Installation - choose ‘Execute’ (**All dependencies should be installed** - green ticks)
* Product configuration - click ‘next’
* Type and Networking - choose ‘Standalone MySQL Server’ and click ‘next’
* Type and Networking - Leave defaults and click ‘next’
* Accounts and Roles - Add root password (the project uses root:Hotmail1) and click ‘next’
* Windows Service - Leave defaults and click ‘next’
* Plugins and extensions - click ‘next’
* Apply configuration - choose ‘Execute’
* Click ‘Finish’
* Product Configuration - Router - Click ‘next’
* Click ‘Finish’
* Samples and Examples - Click ‘next’
* Connect to Server - choose ‘MySQL server’ in the box and click ‘Check’. It should show “connection successful”. Click ‘next’
* Apply configuration - choose ‘execute’ and finish
* Make sure that the workbench is running after the setup is over.

1. **MySQL Server - MAC**

* Install MySQL server - **Mac OS X 10.12 (x86, 64-bit), DMG Archive**

<https://dev.mysql.com/downloads/mysql/>

Choose OS as Mac OS X

* Install Workbench **Mac OS X (x86, 64-bit), DMG Archive**

<https://dev.mysql.com/downloads/workbench/>

MySQL Server password - It is the default password that MySQL server gives after the installation is complete. This password will be different for each installation.

E.g. Yu.T.R%6Ly=K

**Open terminal -**

iMac:bin$ /usr/local/mysql/bin/mysql -u root -p

Enter password: "Here enter the default password that MySQL server gave you after installation"

Welcome to the MySQL monitor. Commands end with ; or \g.

Your MySQL connection id is 11

Server version: 5.7.19

Copyright (c) 2000, 2017, Oracle and/or its affiliates. All rights reserved.

Oracle is a registered trademark of Oracle Corporation and/or its

affiliates. Other names may be trademarks of their respective

owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> UPDATE mysql.user SET Password=PASSWORD('Hotmail1')WHERE User='root';

ERROR 1820 (HY000): You must reset your password using ALTER USER statement before executing this statement.

mysql> SET PASSWORD = PASSWORD('New\_Password');

Query OK, 0 rows affected, 1 warning (0.00 sec)

mysql> exit

* **Installing IntelliJ Idea**

Follow the instructions on the following link -

<https://kodejava.org/introduction-to-jetbrains-intellij-idea-community-edition/>

1. **JCommander -**

* Download JCommander <https://mvnrepository.com/artifact/com.beust/jcommander/1.72>
* Download the jar file
* Save it in C:\Users\\*\*\*\*\*\IdeaProjects\IDSApp\src\com\util\ (\*\*\*\* indicate the user)

1. **MySQL Connector/J - the official JDBC driver for MySQL -**

* Download the zip archive <https://dev.mysql.com/downloads/connector/j/>
* Extract the zip
* Copy the jar to C:\Users\\*\*\*\*\*\IdeaProjects\IDSApp\src\com\util\ (\*\*\*\* indicate the user)

1. **Copying the project -**

* **Windows** - Copy the IDSApp folder from the source machine and paste it in C:\Users\\*\*\*\*\*\IdeaProjects\ folder of the destination machine.
* **Mac** - Copy the IDSApp folder from the source machine and paste it in \Users\\*\*\*\*\*\IdeaProjects\ folder of the destination machine.

**Running the Project -**

**On MySQL Server -**

* Create a new schema in the connected server and name it ‘idsdb’

**On IntelliJ Idea -**

* Click File → New → Project
* In the New Project dialog box, choose Project SDK as - 1.8 (java version “1.8.0\_144”) and click ‘Next’
* Choose “Create project from template” and “Command line app” and click ‘Next’
* Give the project name as ‘IDSApp’ and click on ‘Finish’
* Right clicking on <1.8> and choosing “Open Library Settings” under the “External Libraries” tab on the left. Under Classpath tab, add -
  + Mysql-connector-java-5.1.44-bin.jar
  + jcommander-1.27.jar
* If everything is set properly build and run the project. To build - Ctrl + F9, to run - Shift F10
* The project will show you a prompt ( > ) and is ready to accept commands.

**Code Structure -**

* src → com contains all the packages.
  + **commands** - contains functionality to handle command parameters, parse parameters and execute the command
  + **dao** - defines the interfaces for each command
  + **daoimpl** - designing and executing SQL queries for all commands
  + **entities** - supporting classes
  + **util** - utility methods