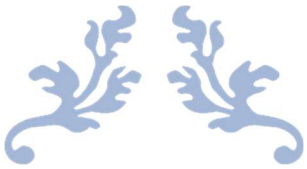

YOUTH HOMELESSNESS PROJECT FALL 2022 MANUAL

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Table Of Content

Introduction

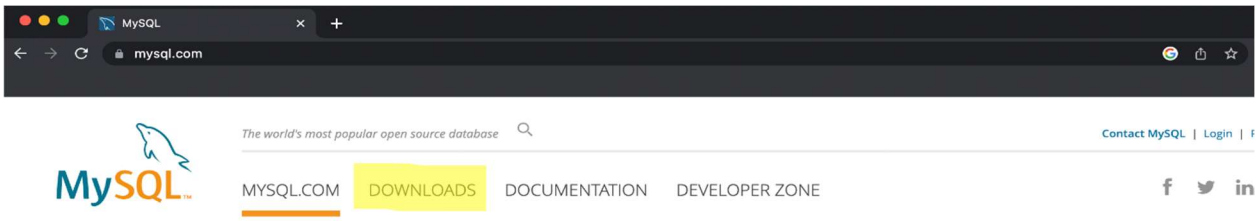
The fall 2022 team picked up from where the Summer 2022 project team left off. The project goal is to provide housing, dependent, and food resource information for students in the Orlando area. The web app is meant to help students find the proper resources through surveys. Based on the questions answered on the survey and the zip code provided by the student, the app provides available resources.

Summer 2022

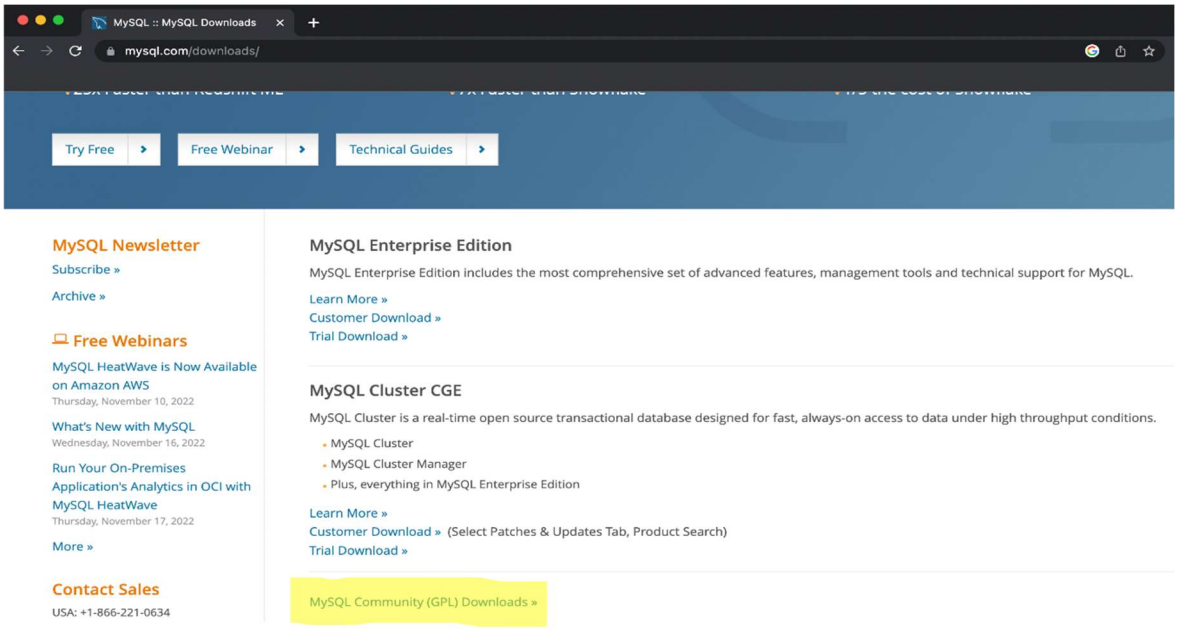
The summer team used Spring boot to get the project started more quickly. Some advantages of spring-boot are that it makes deployment easier, has simplified scalability, is compatible with containers, has a little configuration, and minimizes time in production. The web app uses Rest API and CRUD commands to create, read, update, and delete users, surveys, and resource information. Also, the web app uses JPA hibernate to persist data to a MySQL database.

Setting Up MySQL

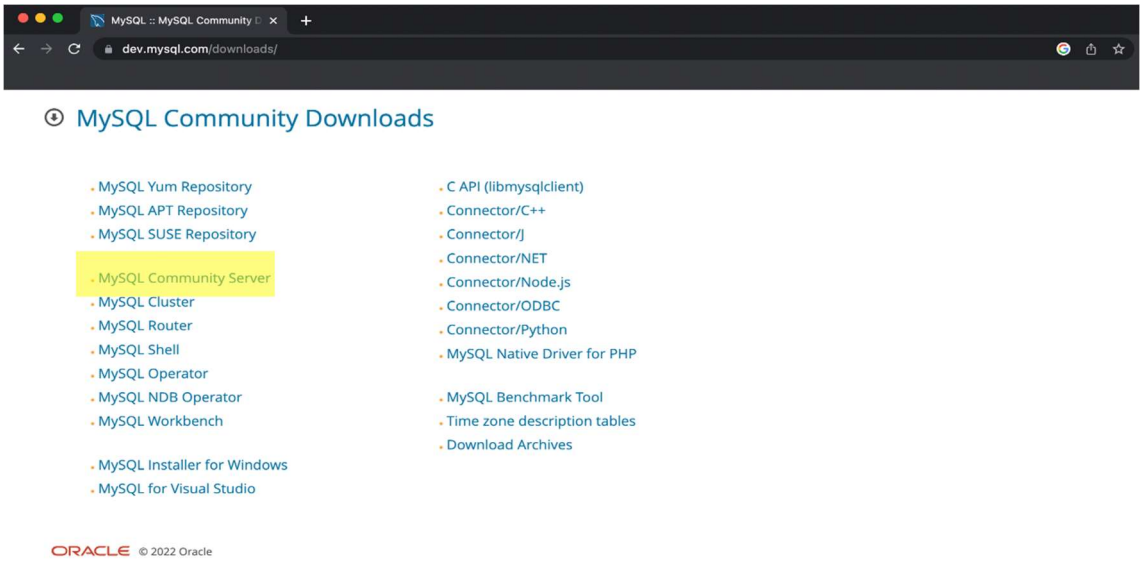
Step 1: Go to https://www.mysql.com and click “downloads”



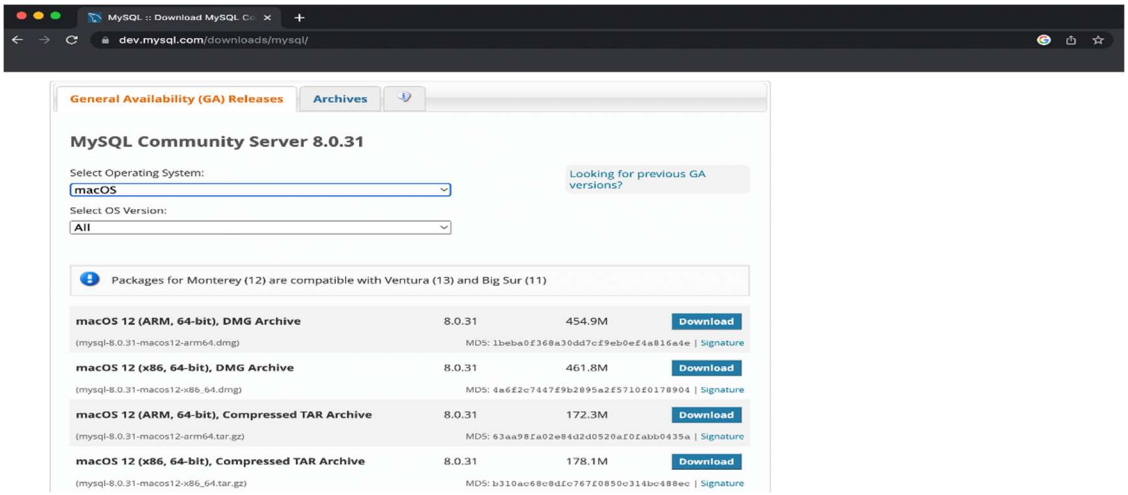
Step 2: Select “MySQL Community (GPL) Downloads >>”



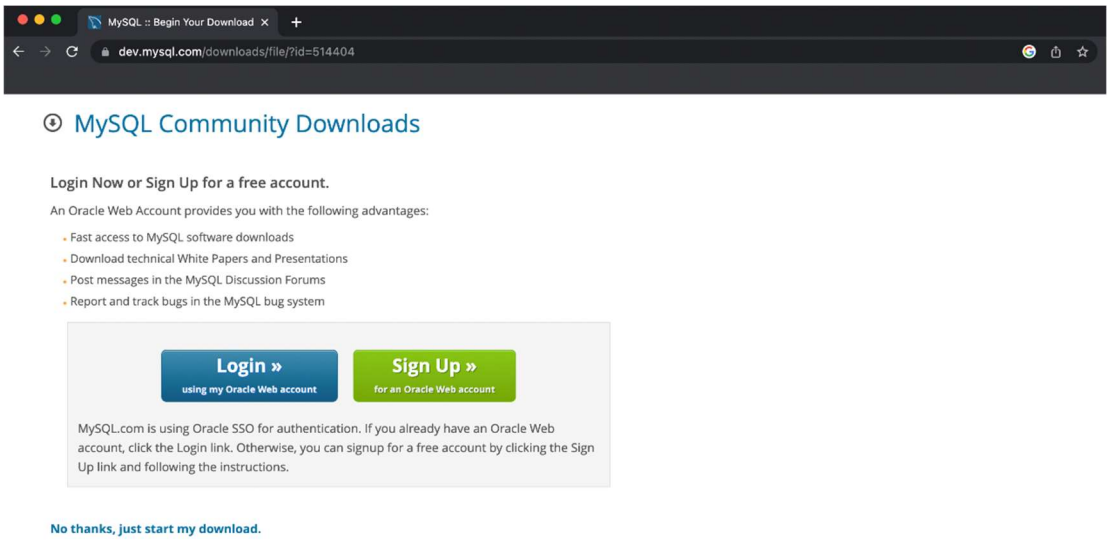
Step 3: Select “MySQL Community Server”



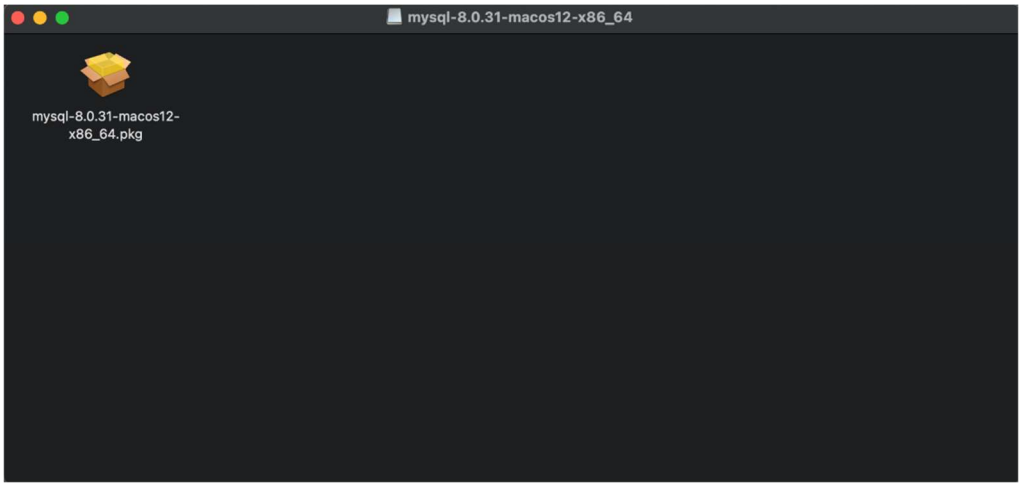
Step 4: Select the most appropriate download for your OS. In this example, macOS was used.



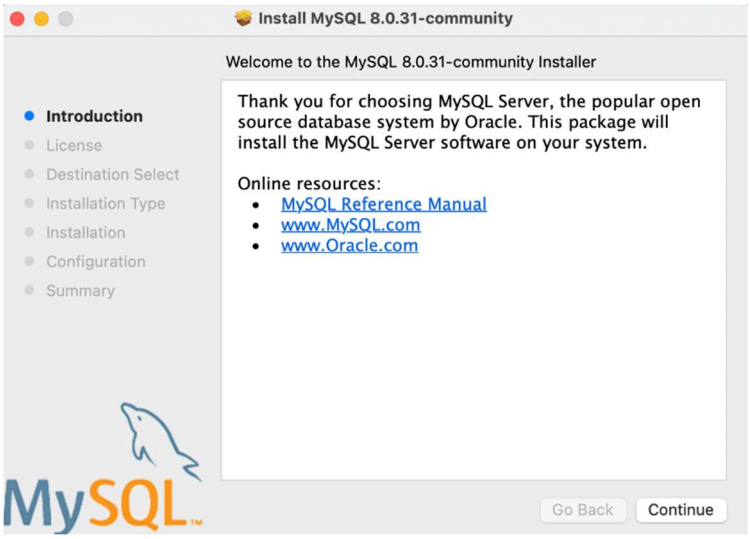
Step 5: You can either choose to sign up for a free account or select “No thanks, just start my download.”



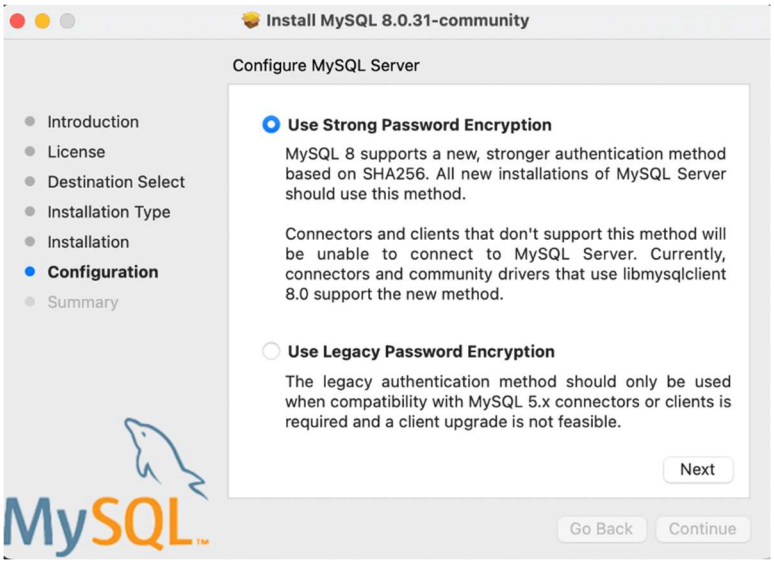
Step 6: Open folder from browser or find download folder on your computer



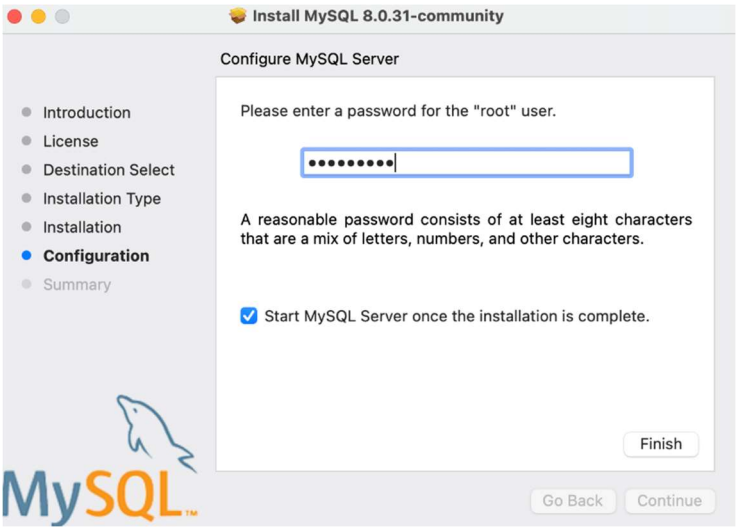
Step 7: MySQL installer will open up. Click through each section. No changes are necessary.



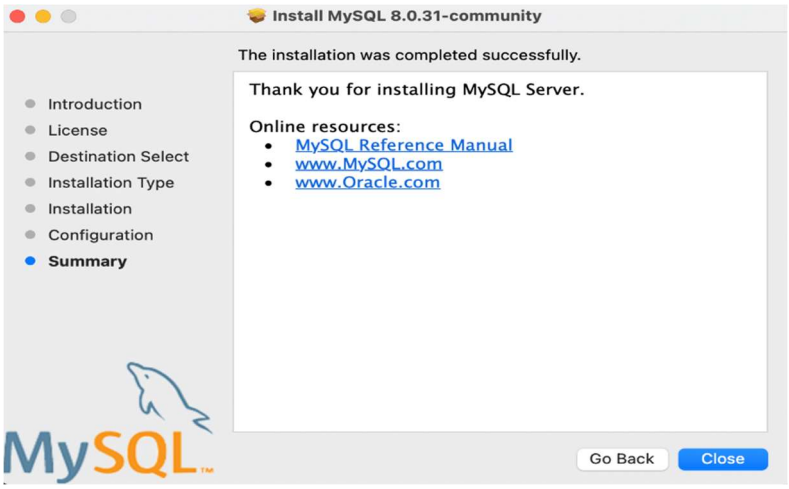
Step 8: Next, it will ask you to create a password for your MySQL server. Select "Use Strong Password Encryption"



Step 9: Create password for "root" user, then select "Finish"



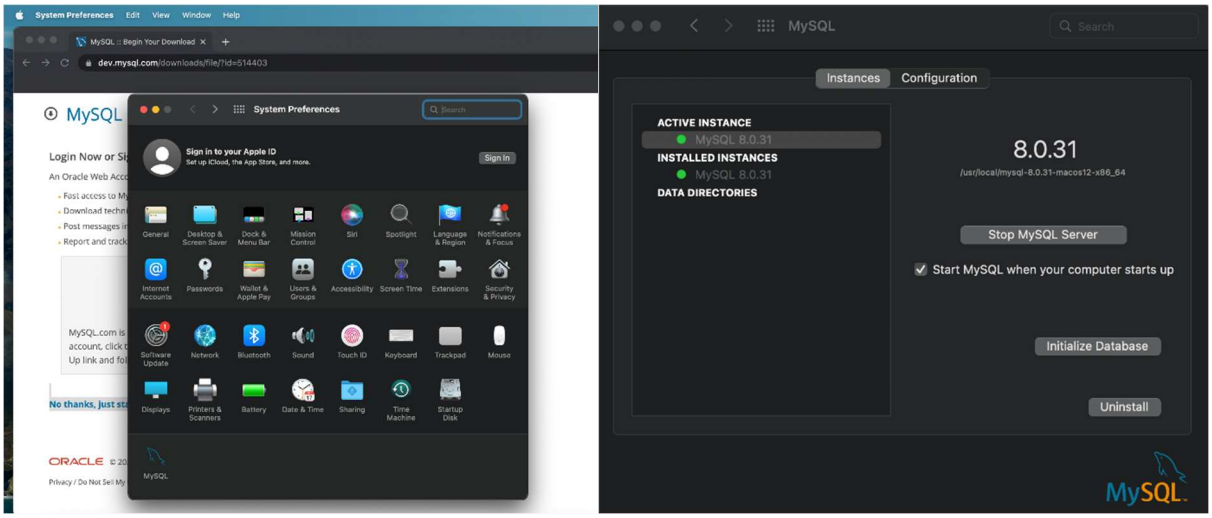
Step 10: The installination should now be completed successfully. Close installer window.



Step 11: Ensure that the MySQL server is running

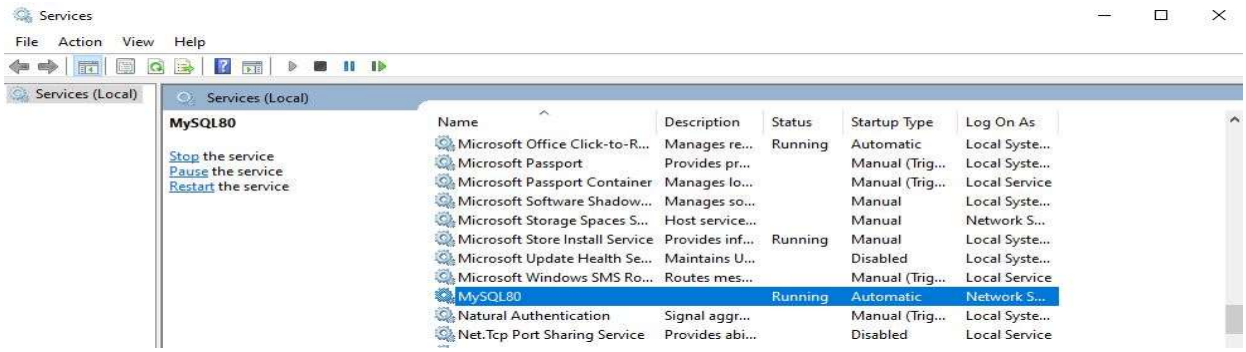
macOS:

Navigate to the Apple icon in the top left hand side of the desktop, select “System Perferences” and select “MySQL” at the bottom of the window. From here, you should see an active instance running, indicated by a green dot.



Windows:

Search for “Services” on your computer, then find “MySQL80” from the list. It should state “running” if the MySQL instance is running.



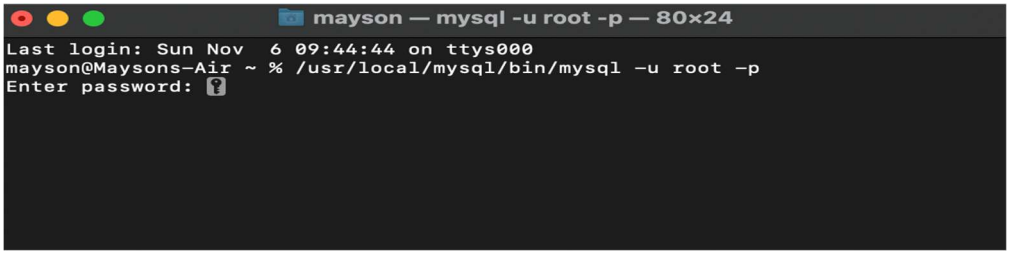
Step 12: Add MySQL to Path

macOS:

Open the terminal and type “ls -a”. Ensure that there is a “bash_profile” file. If there is not, you can create one by typing “touch .bash_profile”

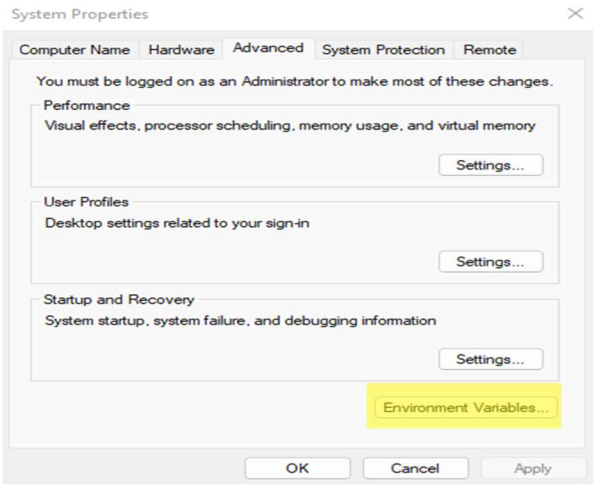
Once you know you have the bash_profile file on your machine, open up the file from the terminal by typing “open -t .bash_profile”. From here, you want to ensure to add the path to SQL with the export command below.

From here, you want to connect to your MySQL. Type “/usr/local/mysql/bin/mysql -u root -p” then enter the root password that was created in the installer.

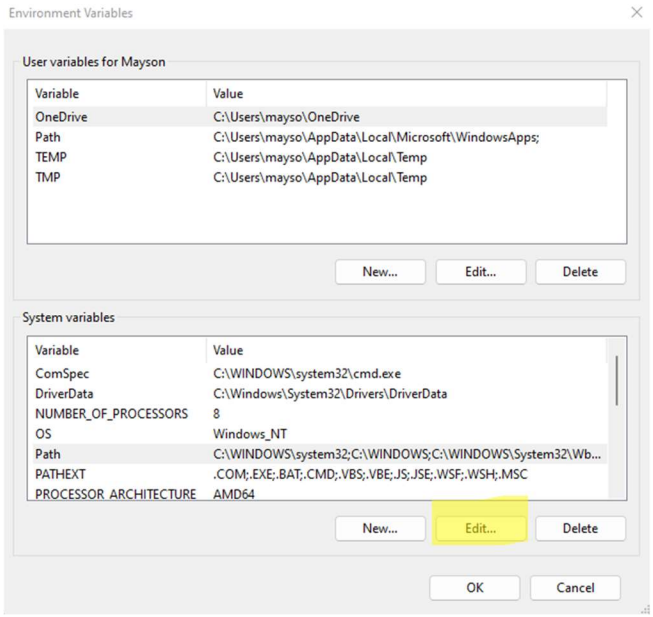


Windows:

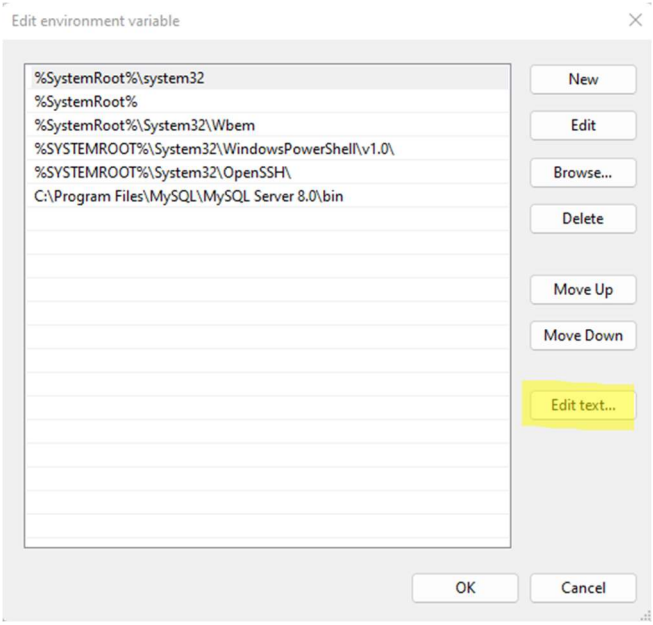
Search for and select “edit the system environment variables” in desktop search bar. From here, select “Environment Variables..”



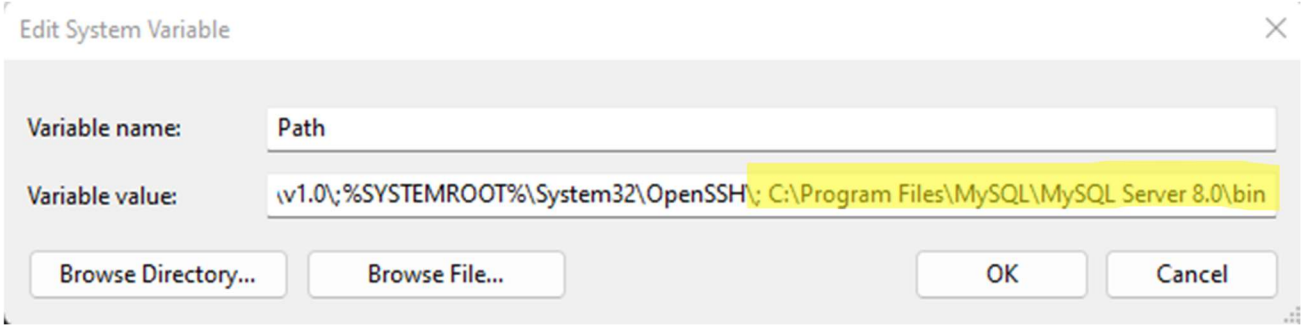
Select on “Path” under system variables, then select “Edit…”



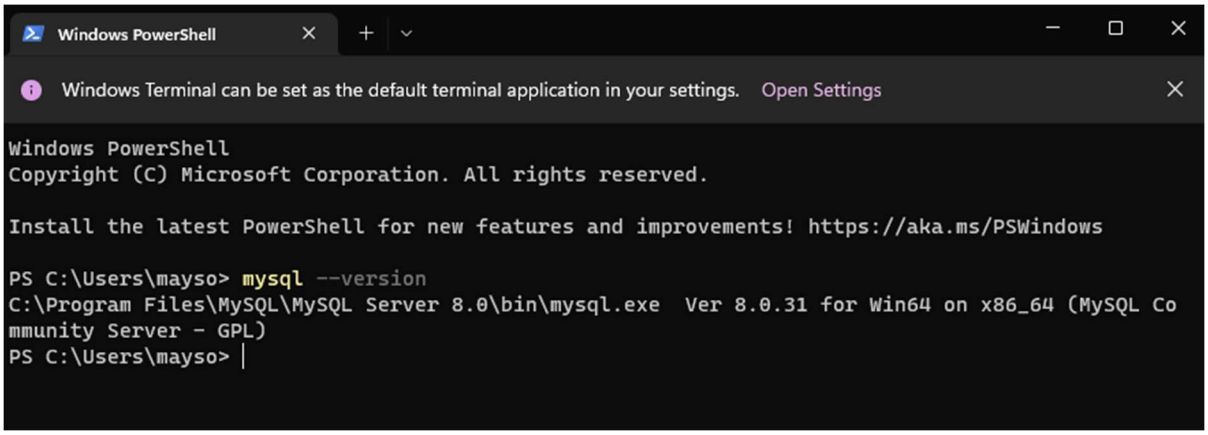
Select “Edit text…”



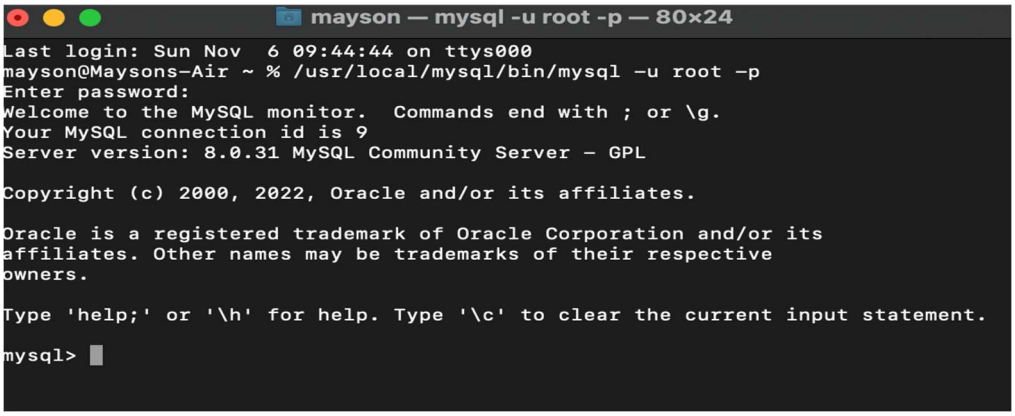
In the “variable value:” section, add “;” at the end of the existing statement, then paste the file address for the MySQL Server bin found on your local machine. (You can search for this in your File Explorer). Click “OK”



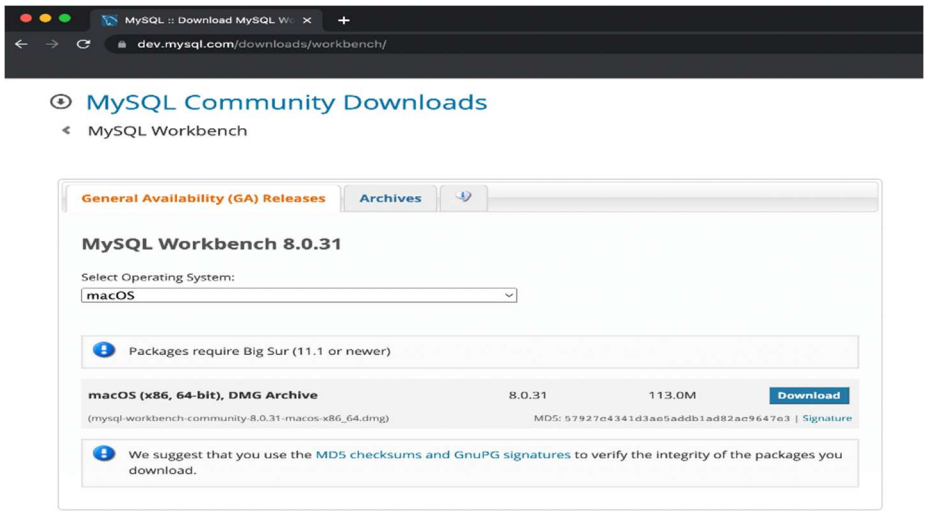
From here, MySQL server should be up and running. To test the connection, open up the terminal and type “mysql –version”. If it provides the server version, then you’re all set to go.



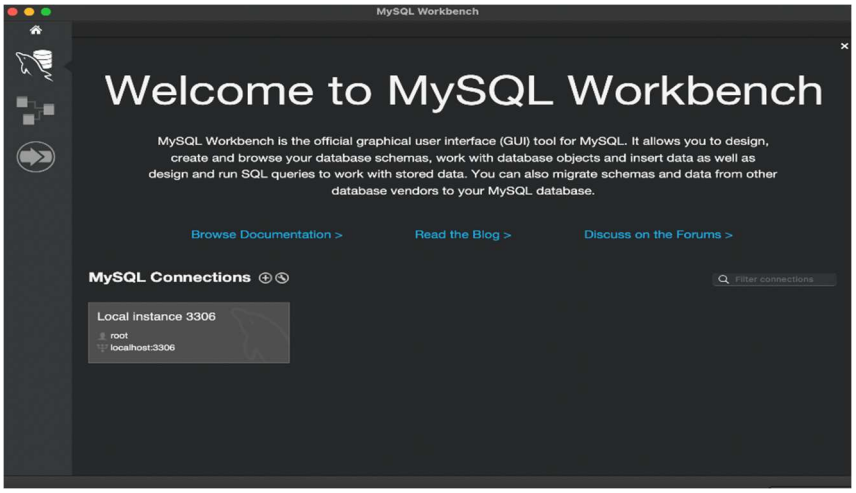
Step 13: You should now be connected to the MySQL server on your machine.



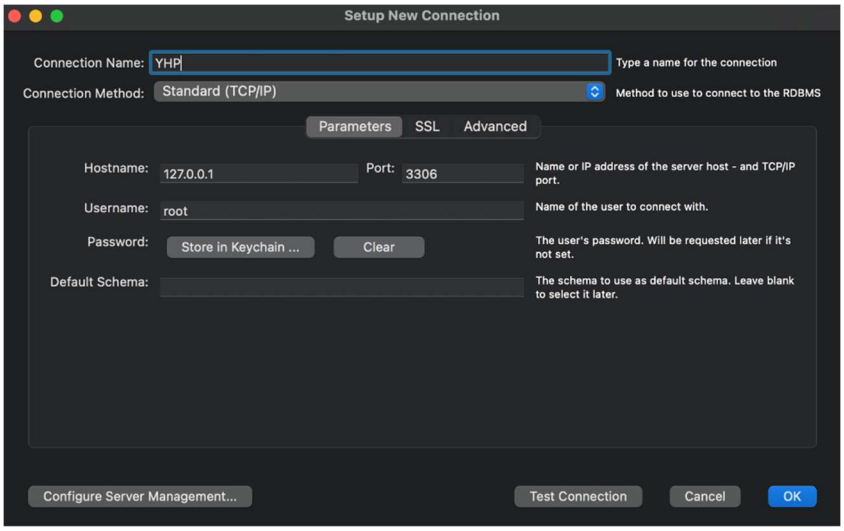
Step 14: Download “SQL Workbench” on computer by going to https://dev.mysql.com/downloads/workbench/ .Ensure to choose your appropriate OS.



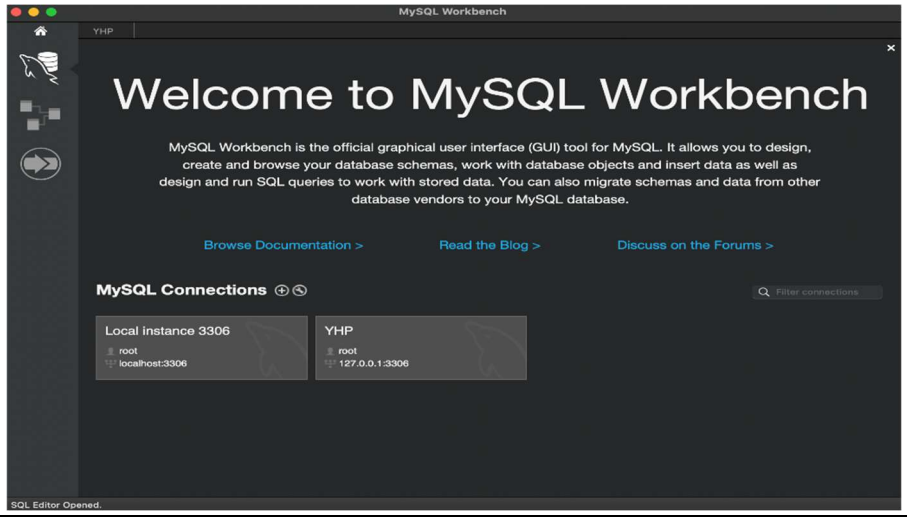
Step 15: Once downloaded, open the MySQL Workbench application. Select “+” symbol next to “MySQL Connections”



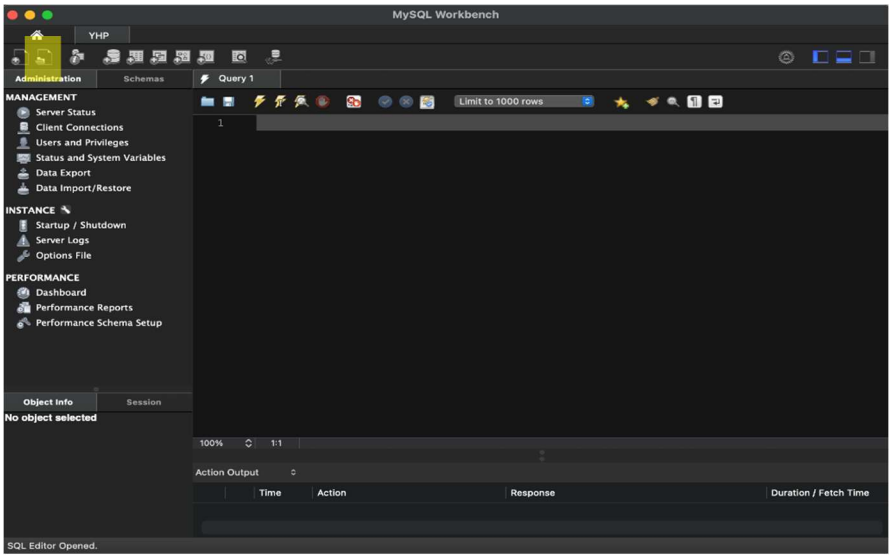
Step 16: Set up connection with database.



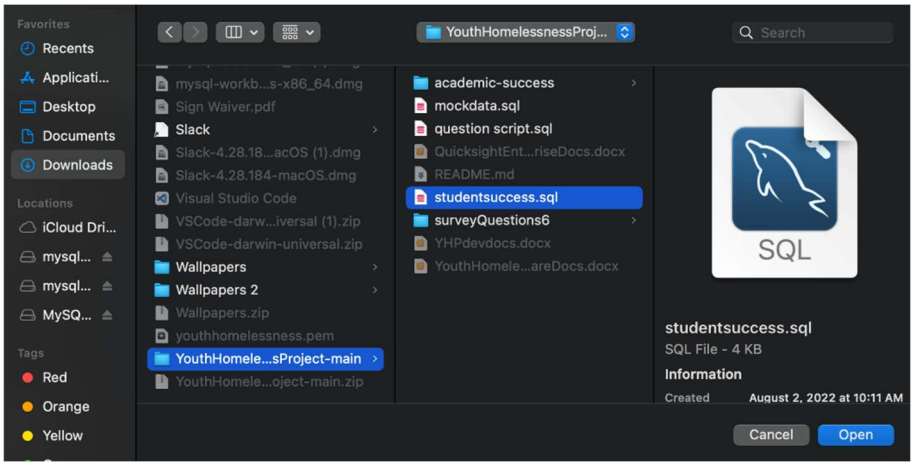
Step 17: You should now see the database under “MySQL Connections”.



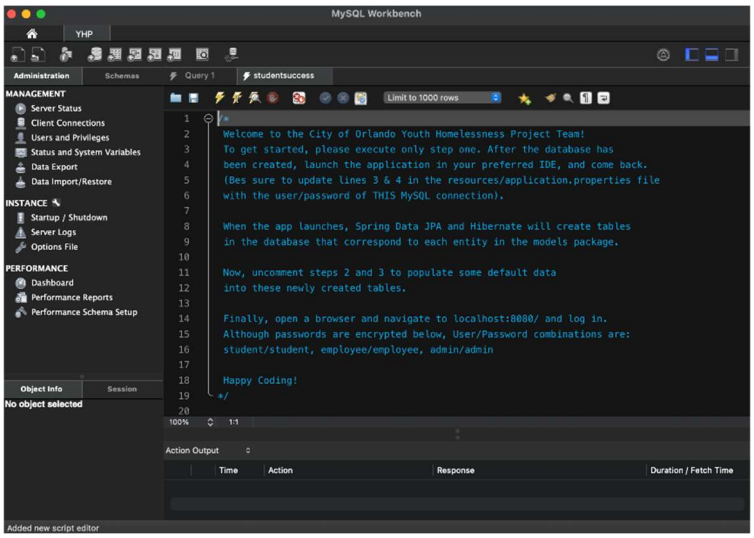
Step 18: Open newly created database. Click the “open file” icon.



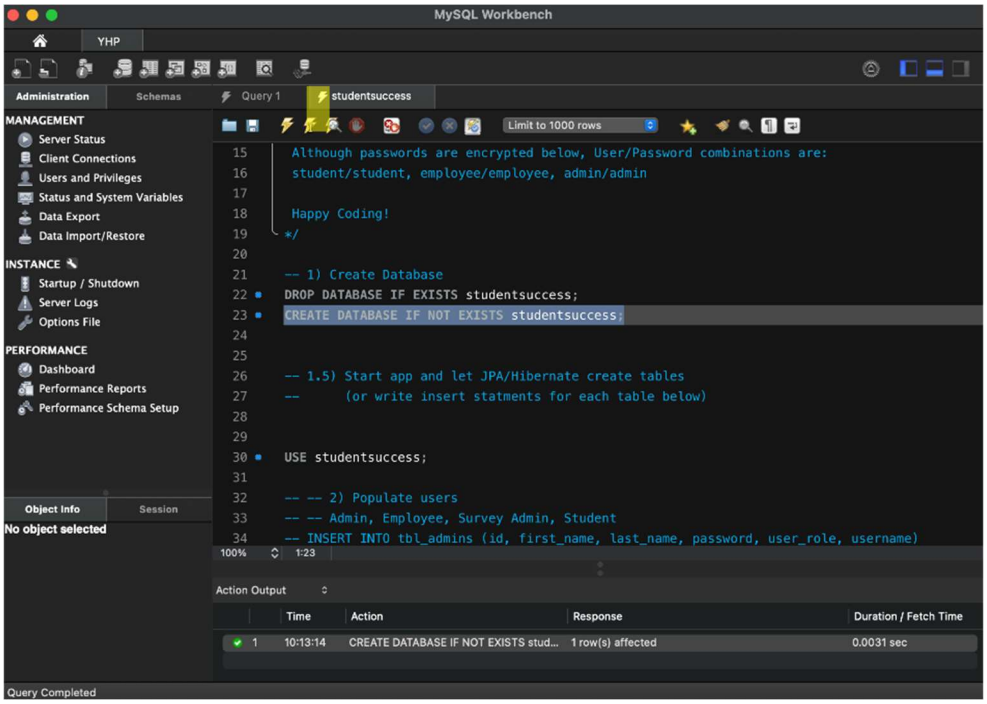
Step 19: Select SQL files from the YouthHomelnessProject-main folder.



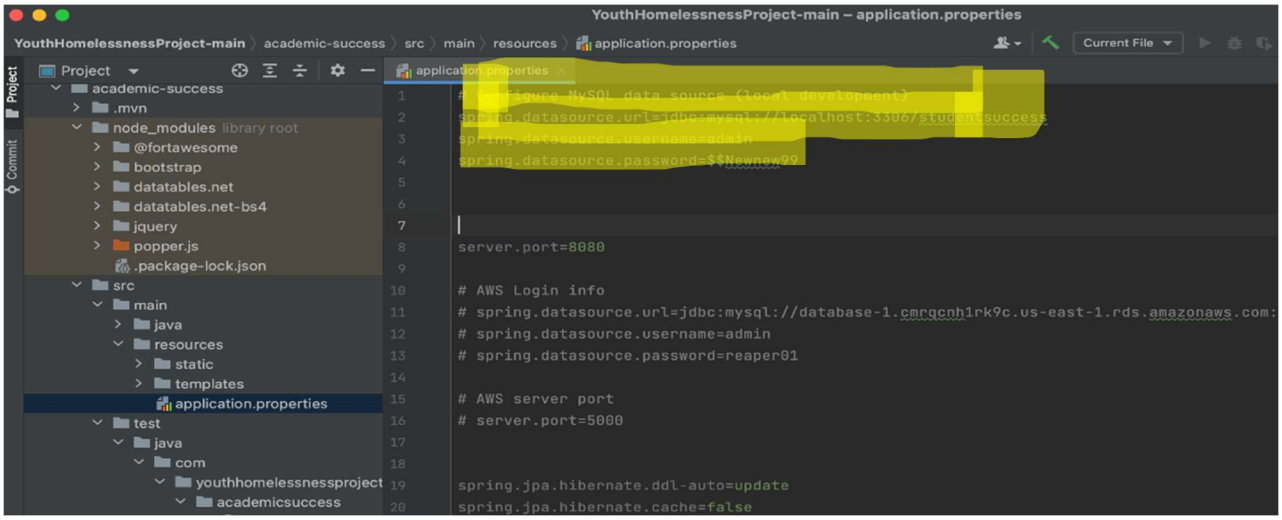
Step 20: Open “studentsuccess” sql script



Step 21: find “CREATE DATABASE IF NOT EXISTS studentsuccess;” line, highlight it with mouse, and execute (lighting bolt)



Step 22: Open YouthHomelnessProject in IDE and under the academic-success folder > src > resources, select “application.properties”. From here, ensure that the MySQL data source for local development reflects your machines database information and creditnals.



Importing SQL Scripts into MYSQL Workbench

Objective: This document is meant to give you the step-by-step procedure on how to import an SQL script into MSQL Workbench.

Prerequisites: This Documentation assumes that you already have MSQL set up with a MYSQL connection:

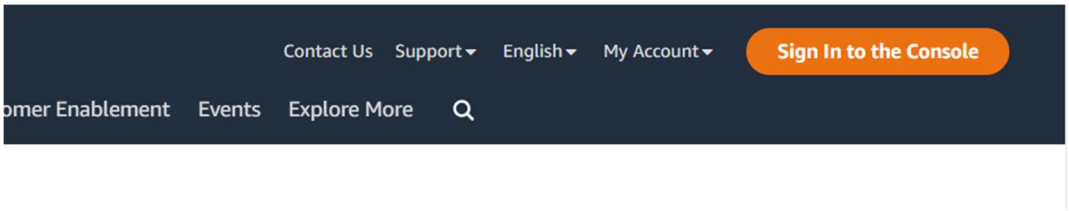
Note: This guide makes references to the youth homelessness project and its web application that may already be running on your local instance; however, you do not need a local instance of an application running to import SQL scripts into MYSQL workbench

Step	Procedure	Expected Result	Comment
1	Click the File drop-down menu on the top left of the page.	File drop menu display	
2	Click open script.	It will open your folders directory	
3	Search for the YouthHomelessnessProjectSoftwareDocs or desired folder, then click on the project folder.	The project folder will display all files and folders.	
4	Click on the studentsuccess file or desired file	The file will be imported into MSQL workbench	
5	To create the database, go to step one in the script and highlight the entire statement in step one, then click on the lightning bolt icon under the script tab to execute the highlighted statement. To run all the statements, click the lightning bolt. Note: if you started the app in IntelliJ, then JPA hibernate will have automatically created the columns. Make sure you read the Comments in the MYQL script. Beware, if IntelliJ already created the tables and columns, you will get errors since those tables and columns will already exist in the database.	MSQL will Create the Database. If you run the entire script all at once, then MYSQL will Also create all necessary columns for each table in the database.	
6	Click the File drop-down menu on the top left of the page	File drop menu display	
7	Click open script	It will open your folders directory	
8	Search for the YouthHomelessnessProjectSoftwareDocs, then click on the project folder.	The project folder will display all files and folders.	
9	Click on the script file	The file will be imported into MSQL workbench	
10	Beware, if you run the entire script simultaneously, you will get errors. Please run the statement in increments by highlighting the portion you want to run, then click lightning bolt under the script tab. If you get an error message, read the error code and message. Most likely, you can skip the code you are trying to run. Some of the errors are caused by unsupported comment tags or because a table has been created already. If the table is already created,	Statements are executed to create new questions and constraints, such as foreign keys, relationships, and many more.	

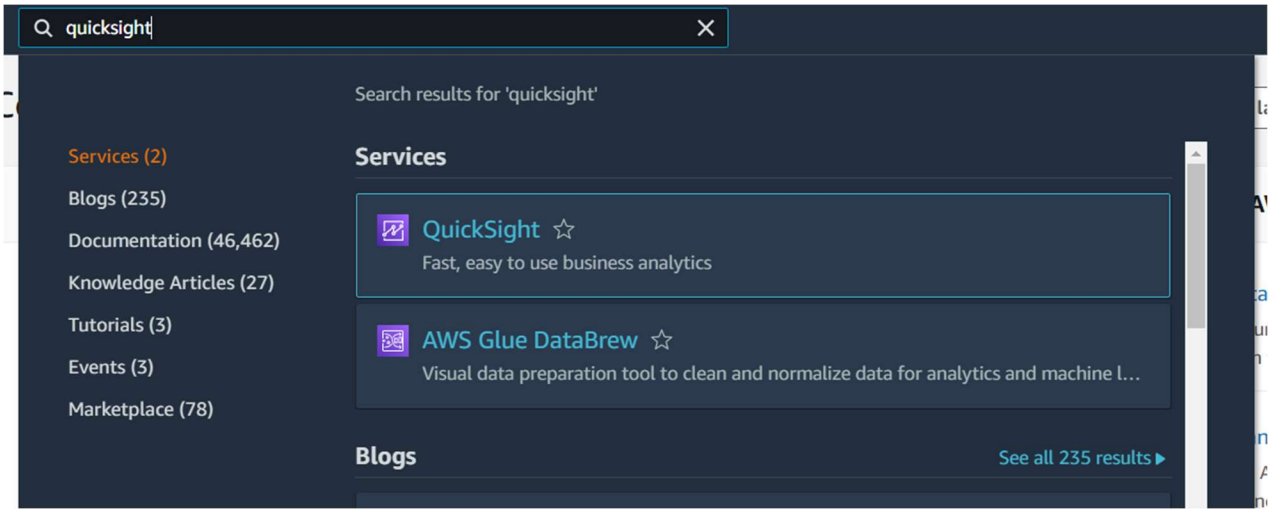
	skip that statement, and move to the next statement or statements.		

MySQL to AWS Quicksight

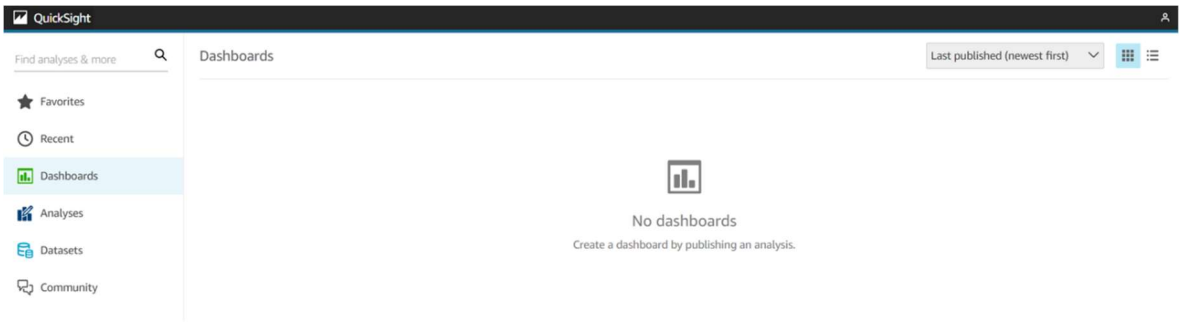
Step 1: Log in to your AWS Account



Step 2: Once signed in, search for "Quicksight"

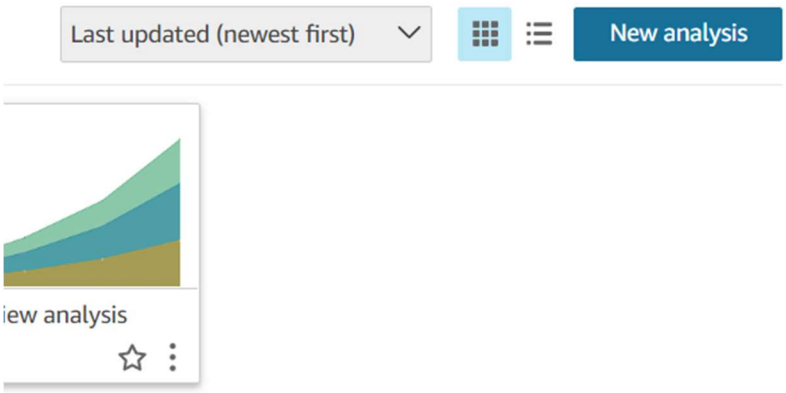


Step 3: It will prompt you to create an account for Quicksight. Once, the account is created you will be able to see your dashboard.

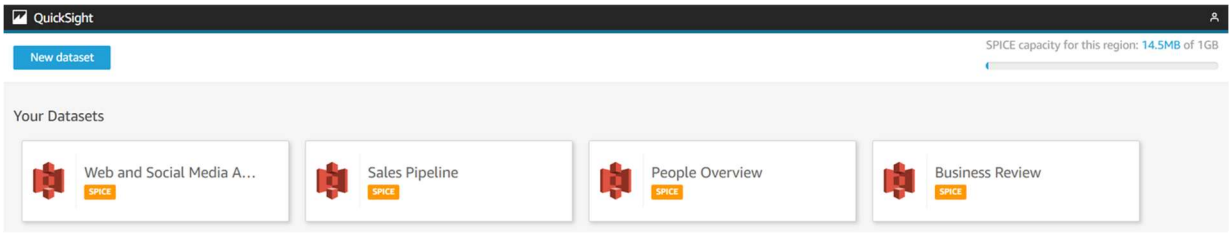


Step 4: Open "Analyses"

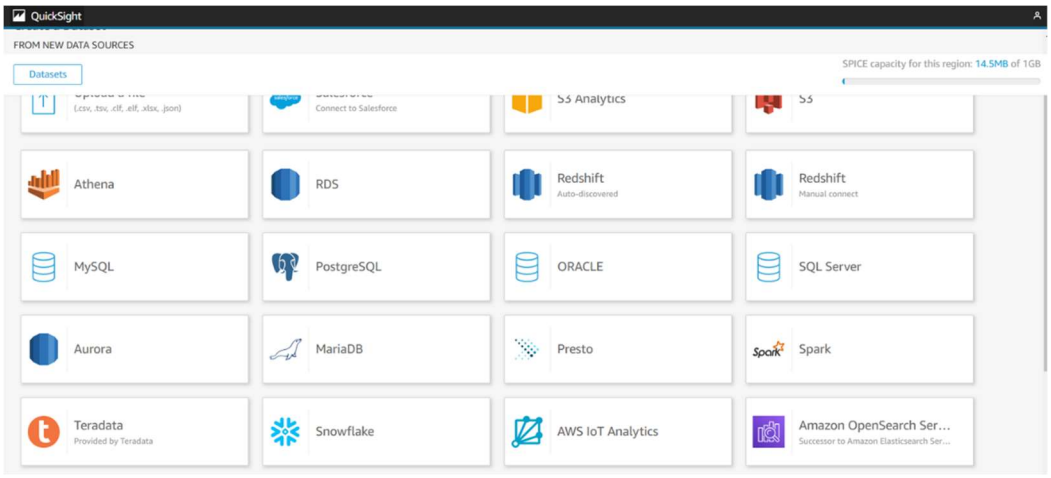
Step 5: Click on “New analysis”



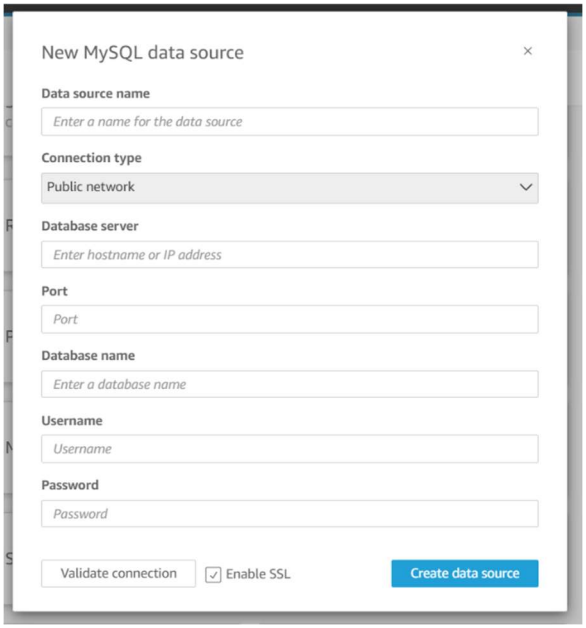
Step 6: Click on “New dataset”

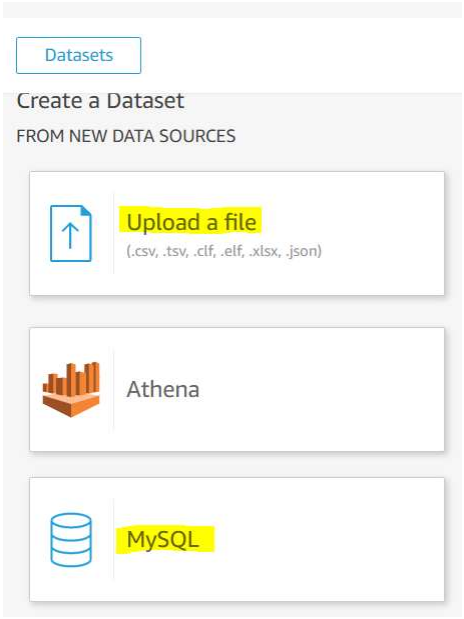


Step 7: Choose “MySQL” from the options.



Step 8: A window should pop-up prompting you to enter details such as server, port, username, password, etc. Enter your MySQL credentials and validate credentials. ***(Note: This is one way to connect MySQL to Quicksight. However, my team decided to upload the files to Quicksight as that is more convenient)***.

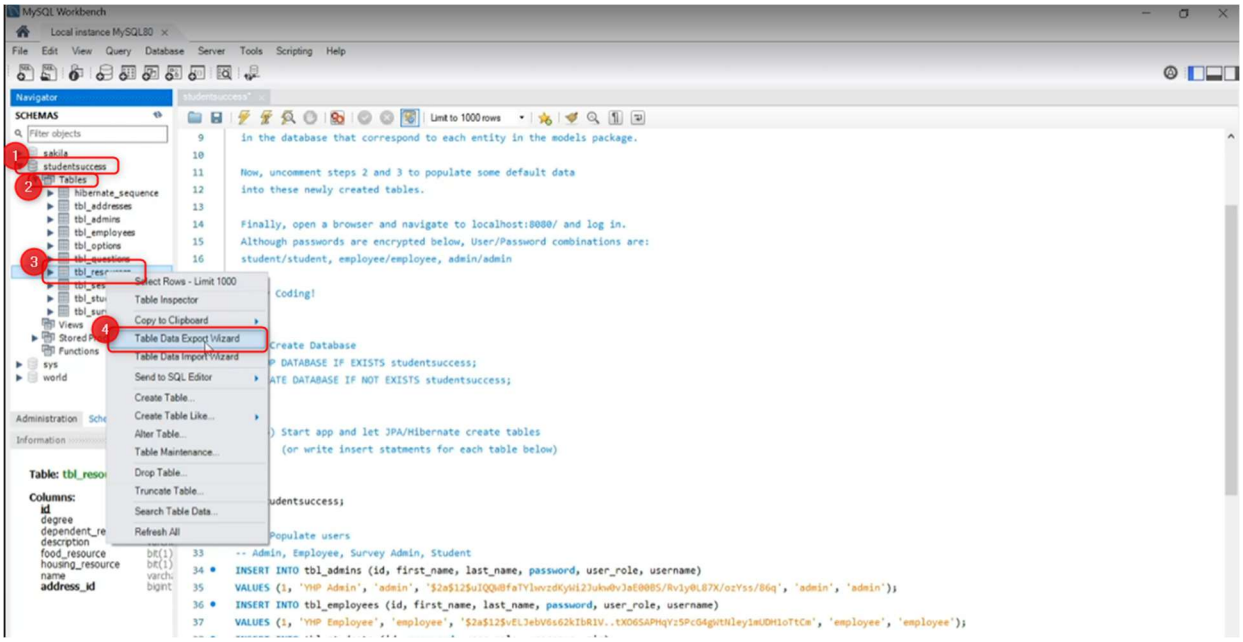




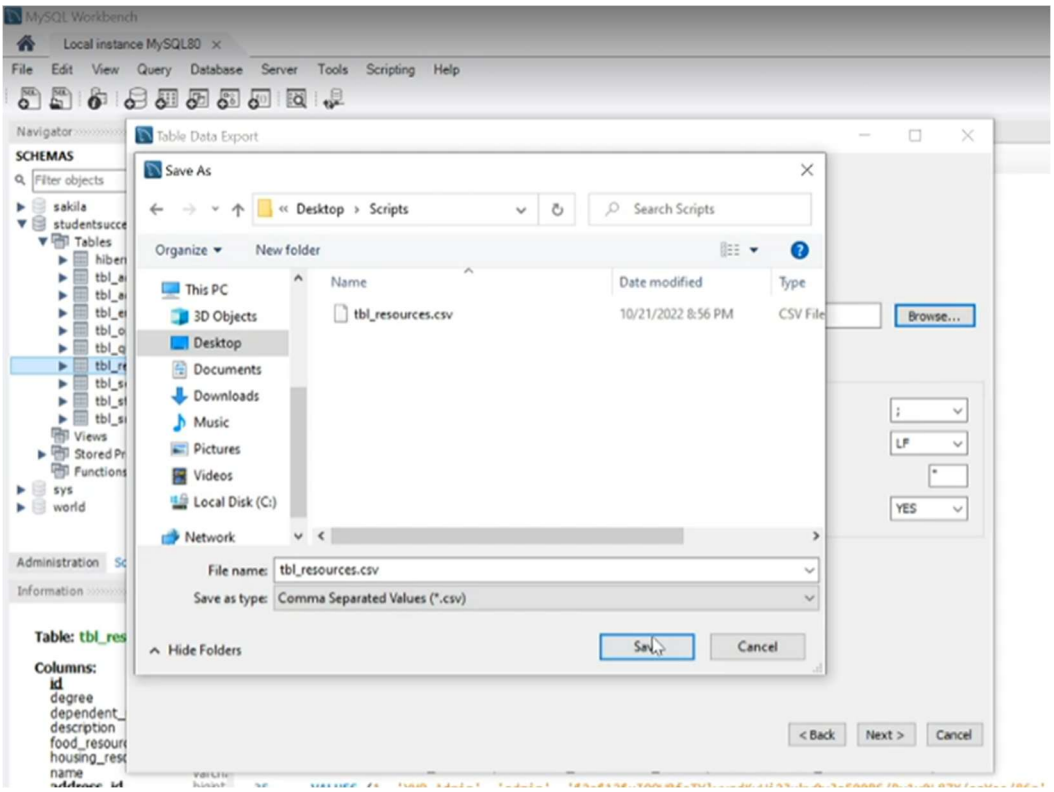
(The following next steps are on how to upload the MySQL files to Quicksight)

Step 1: Log in to MySQL Workbench

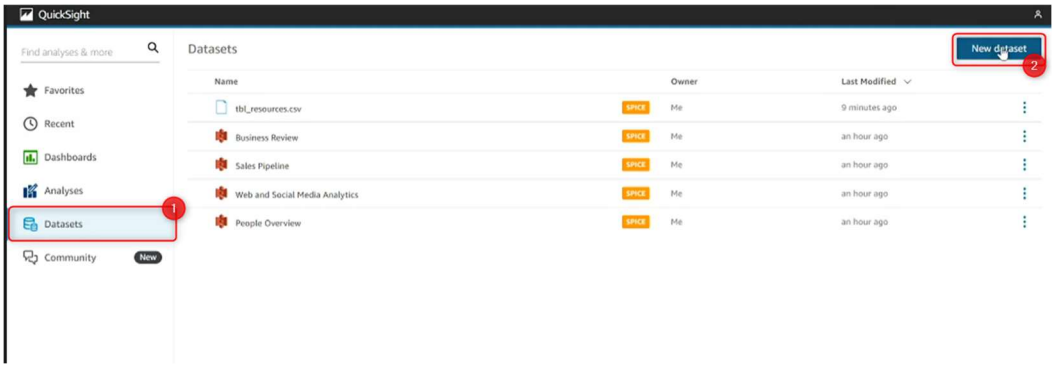
Step 2: Navigate to the table and export data



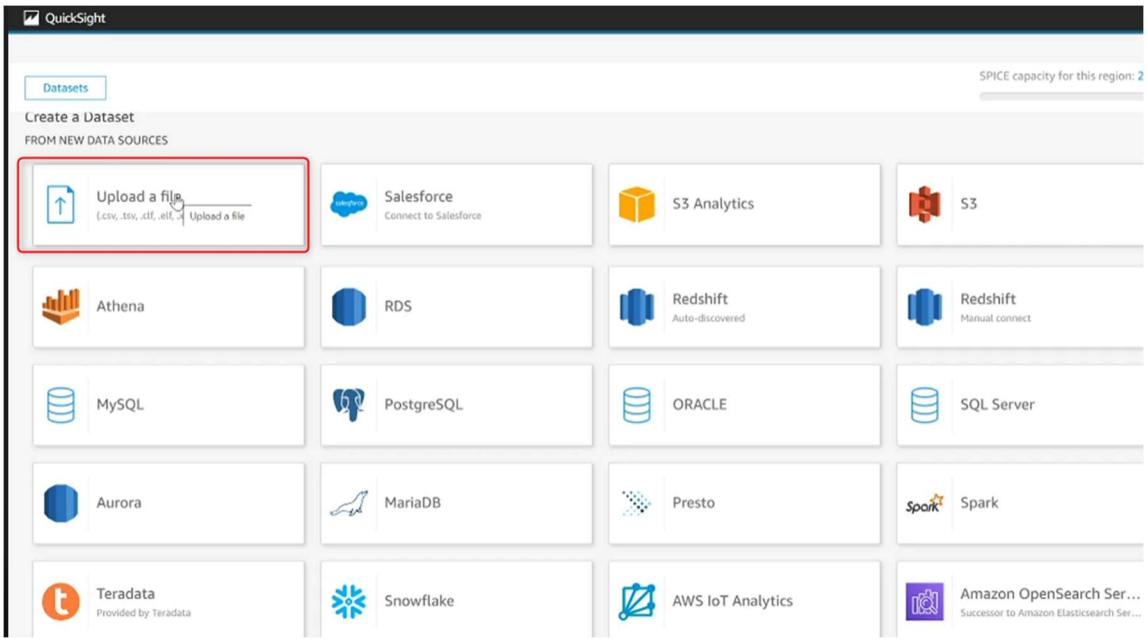
Step 3: Use export wizard to save file as a .CSV file



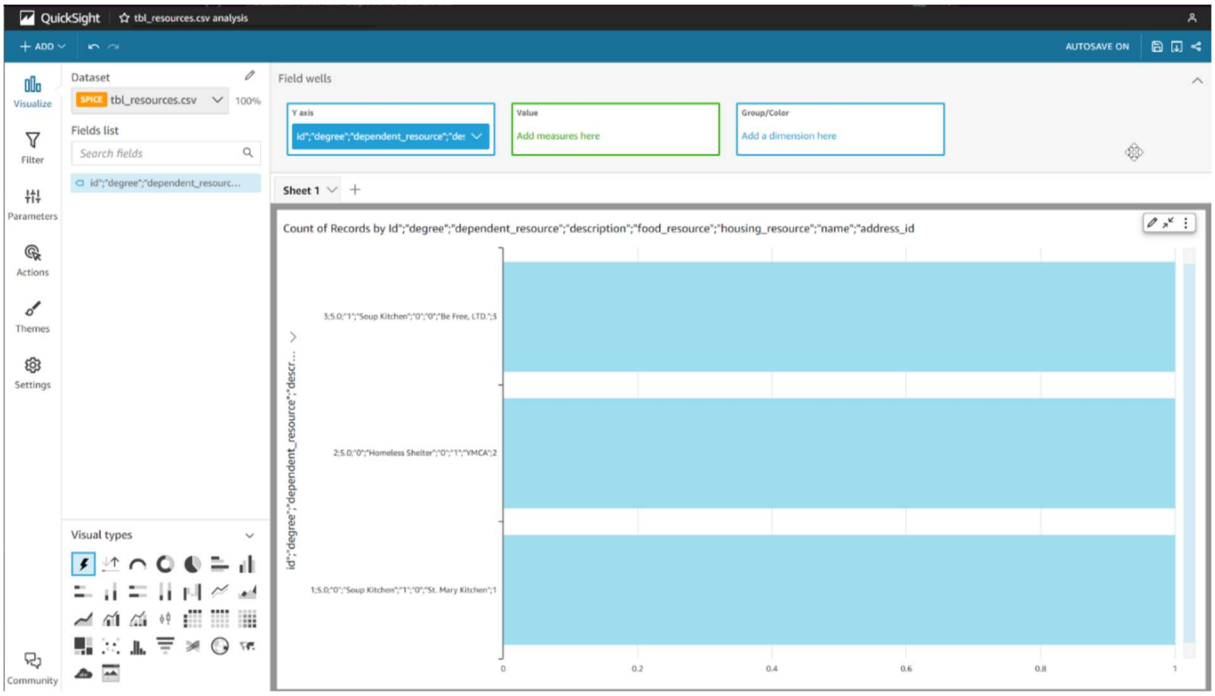
Step 4: Navigate to Quicksight Datasets and create a New dataset



Step 5: Upload the MySQL .CSV file



Step 6: View your datasets

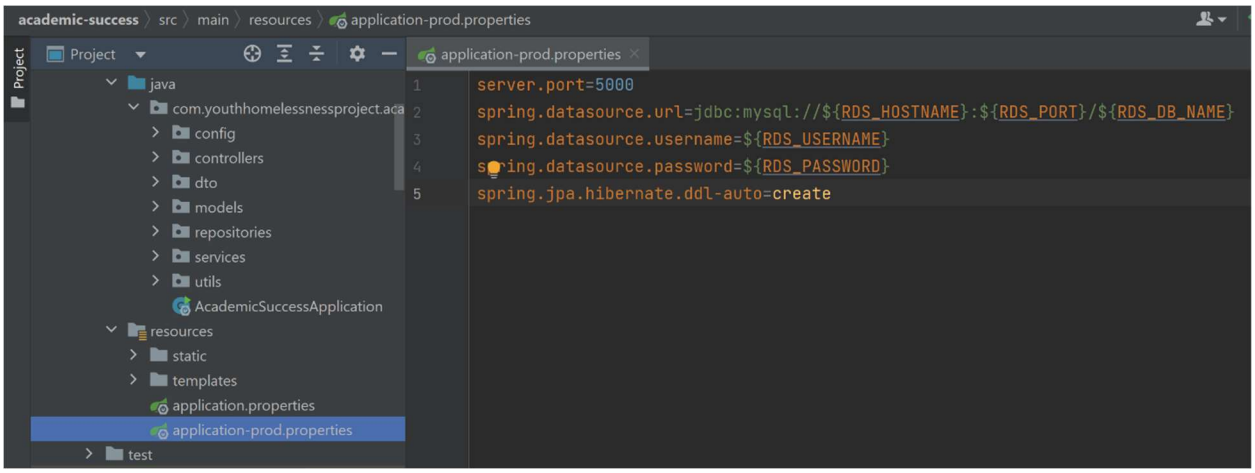


AWS BEANSTALK Deployment

(Reference video: https://www.youtube.com/watch?v=EtDSJRdpJM4&ab_channel=vaadinofficial)

Step 1

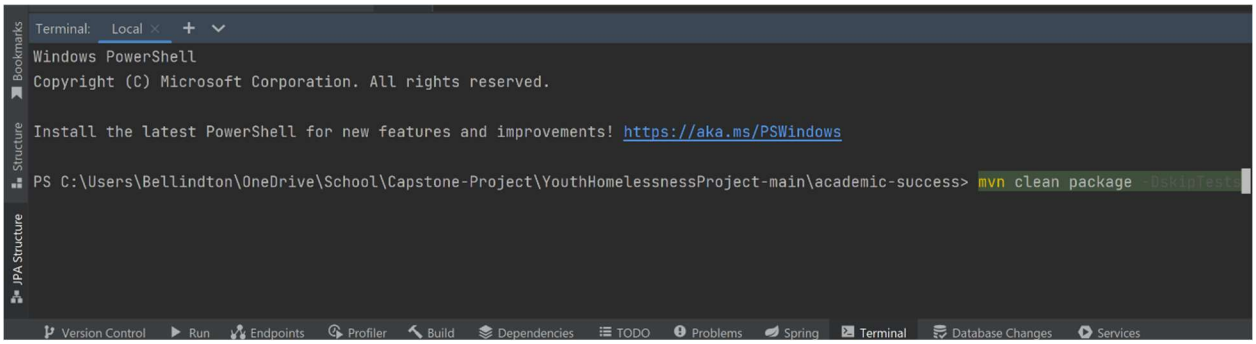
Create and define other properties files (application-prod.properties) in the main resources folder. Prod refers to the profile we use when we start the application, and we will also configure it in AWS so that the properties get recognized by AWS Elastic Beanstalk. The server port for AWS should be mapped to 5000 so it gets served. We will also set up an MYSQL production database. Also, we will set up environment variables in AWS.



Step 2

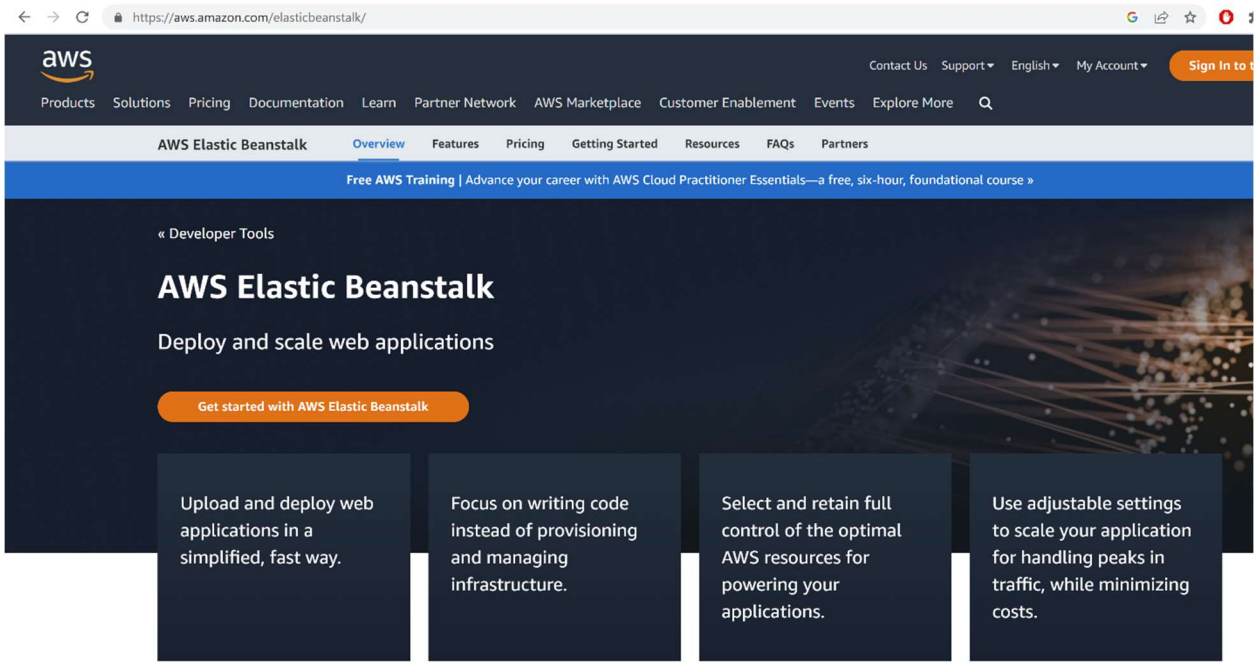
Build a production Build. It's optional to use the keyword -DskipTests to build faster. If you are using IntelliJ Idea, click the terminal tab at the bottom.

Run: mvn clean package -DskipTests

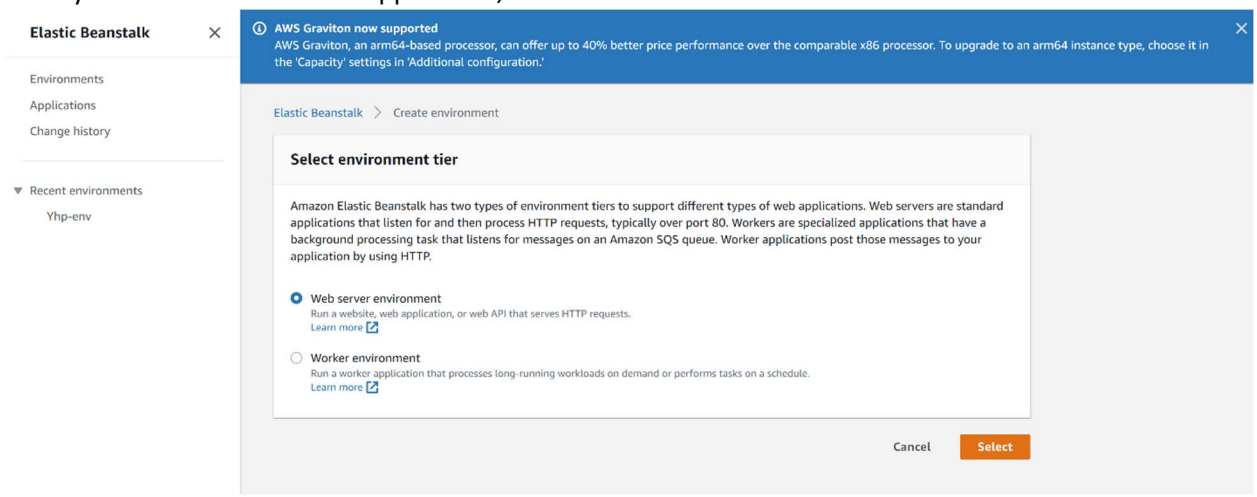


Step 3

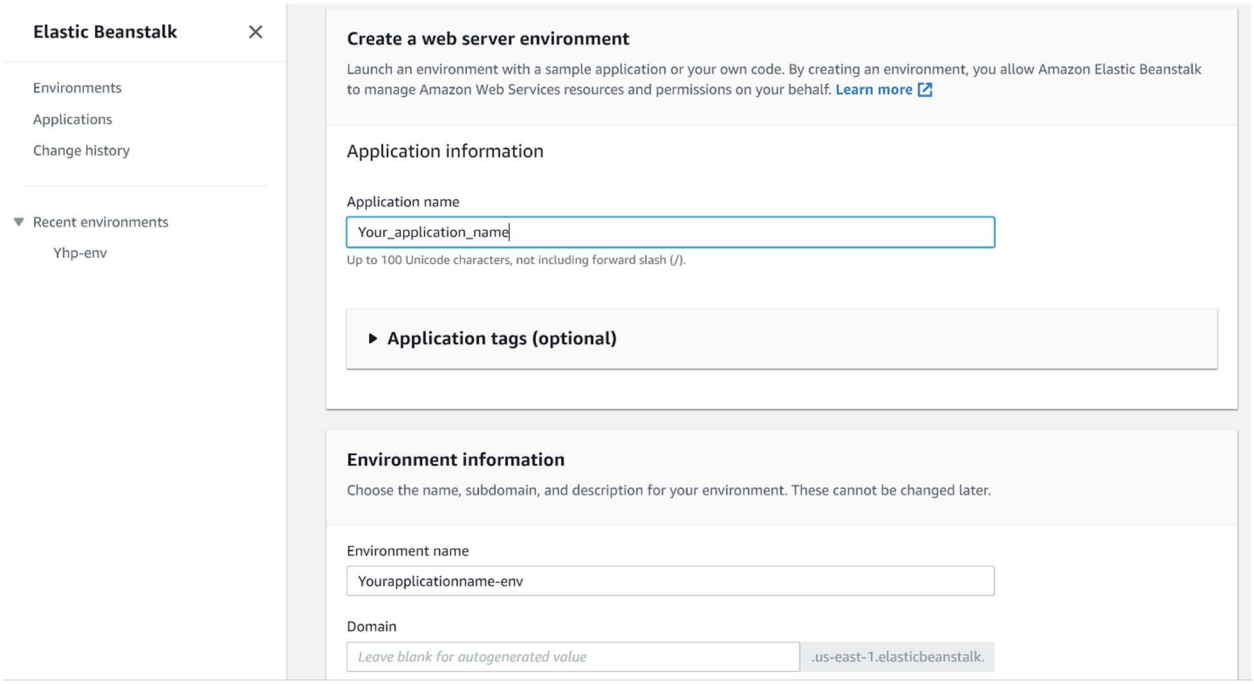
A. Go to AWS beanstalk to get started https://aws.amazon.com/elasticbeanstalk/ . If you already have an AWS account, you can also go to the services section to find AWS Elastic Beanstalk. Once signed in, "Create new environment" on the main page.



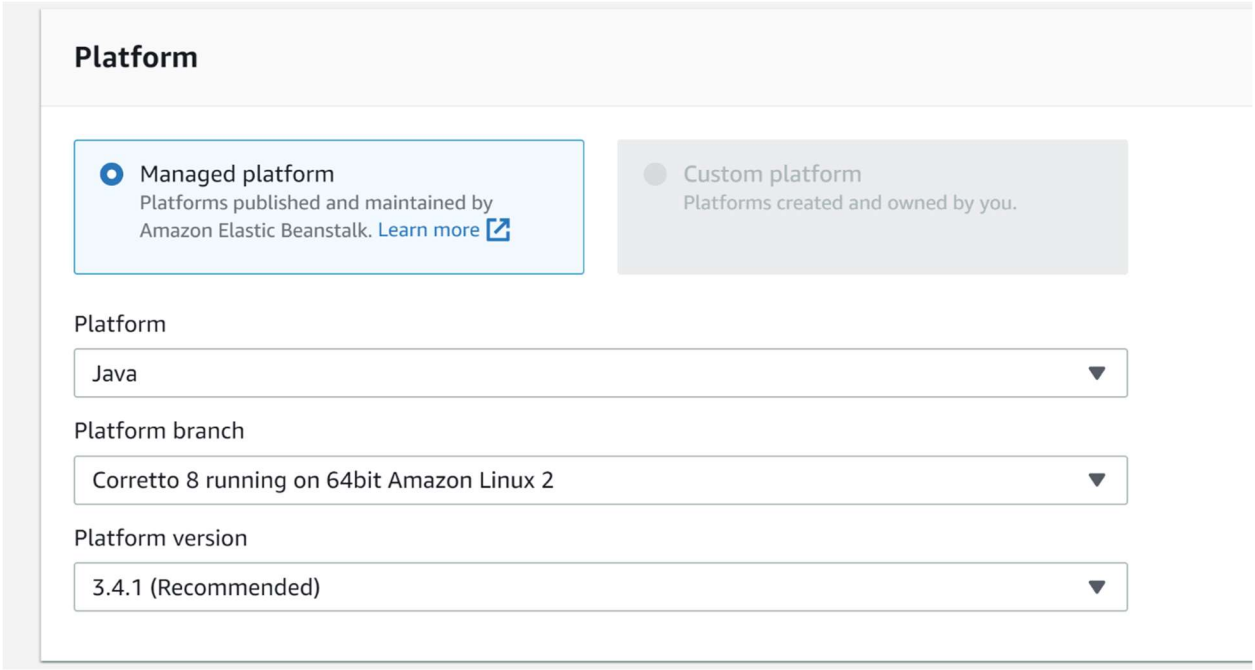
B. After you choose to create an application, choose web server environment tier



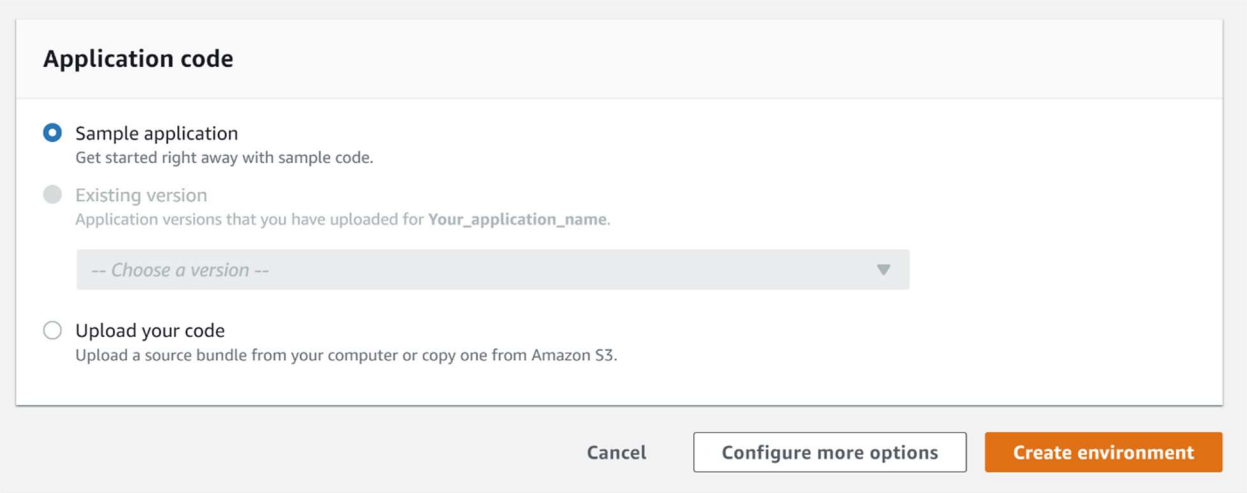
C. When you choose an application name, the environment will auto-populate



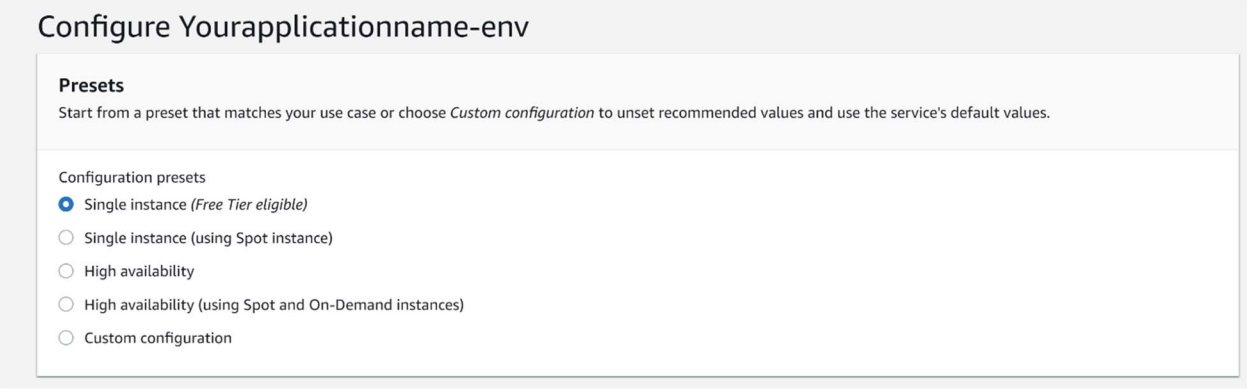
D. For the platform, we choose Java and Corretto 8 branch because the app used java 8 in development.



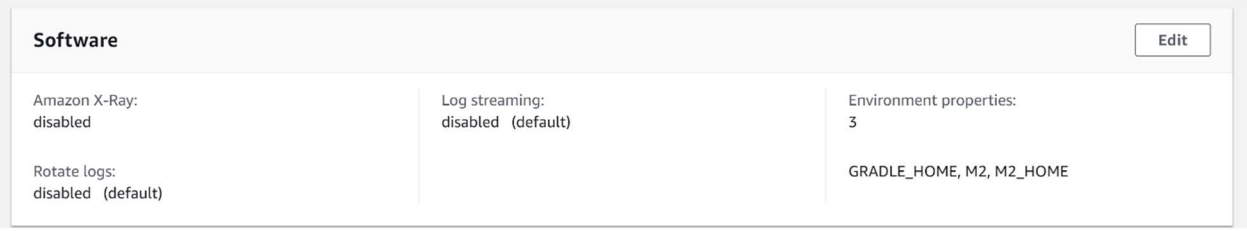
E. For now, choose the sample code instead of uploading your code. Then, click “Configure more options.”



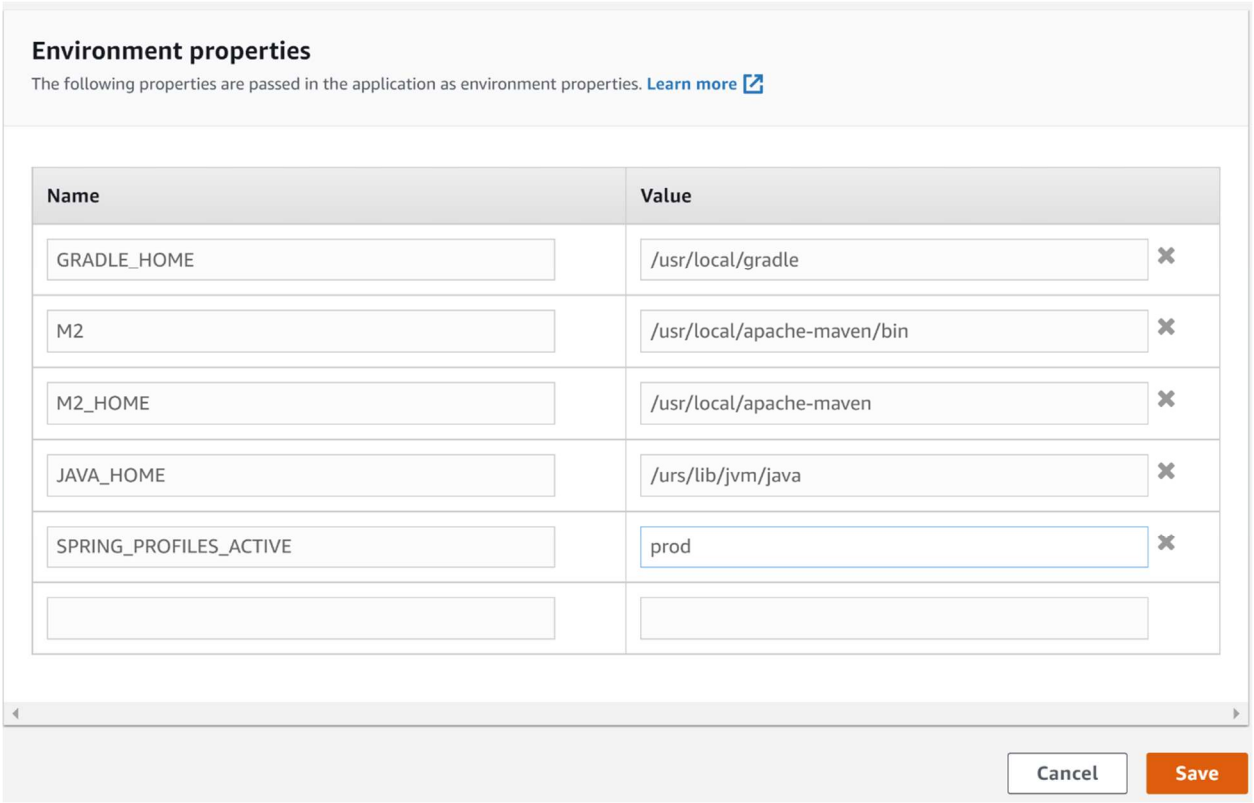
F. Leave presets on single instance (Free tier eligible).



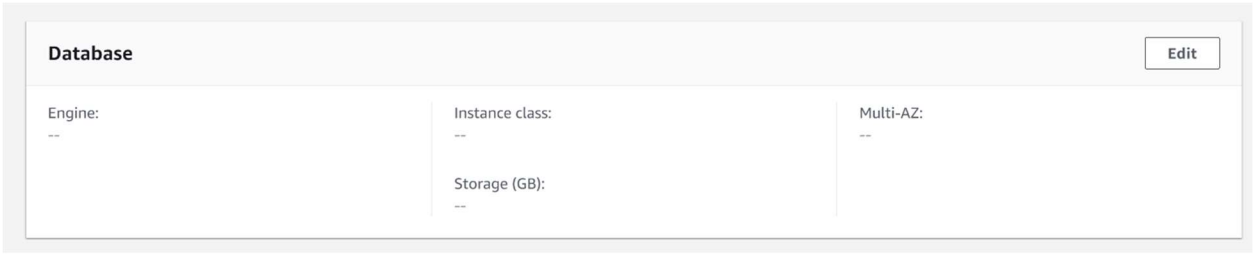
G. Click edit in the Software section to add a dependent variable to recognize the application-prod.properties file of your application.



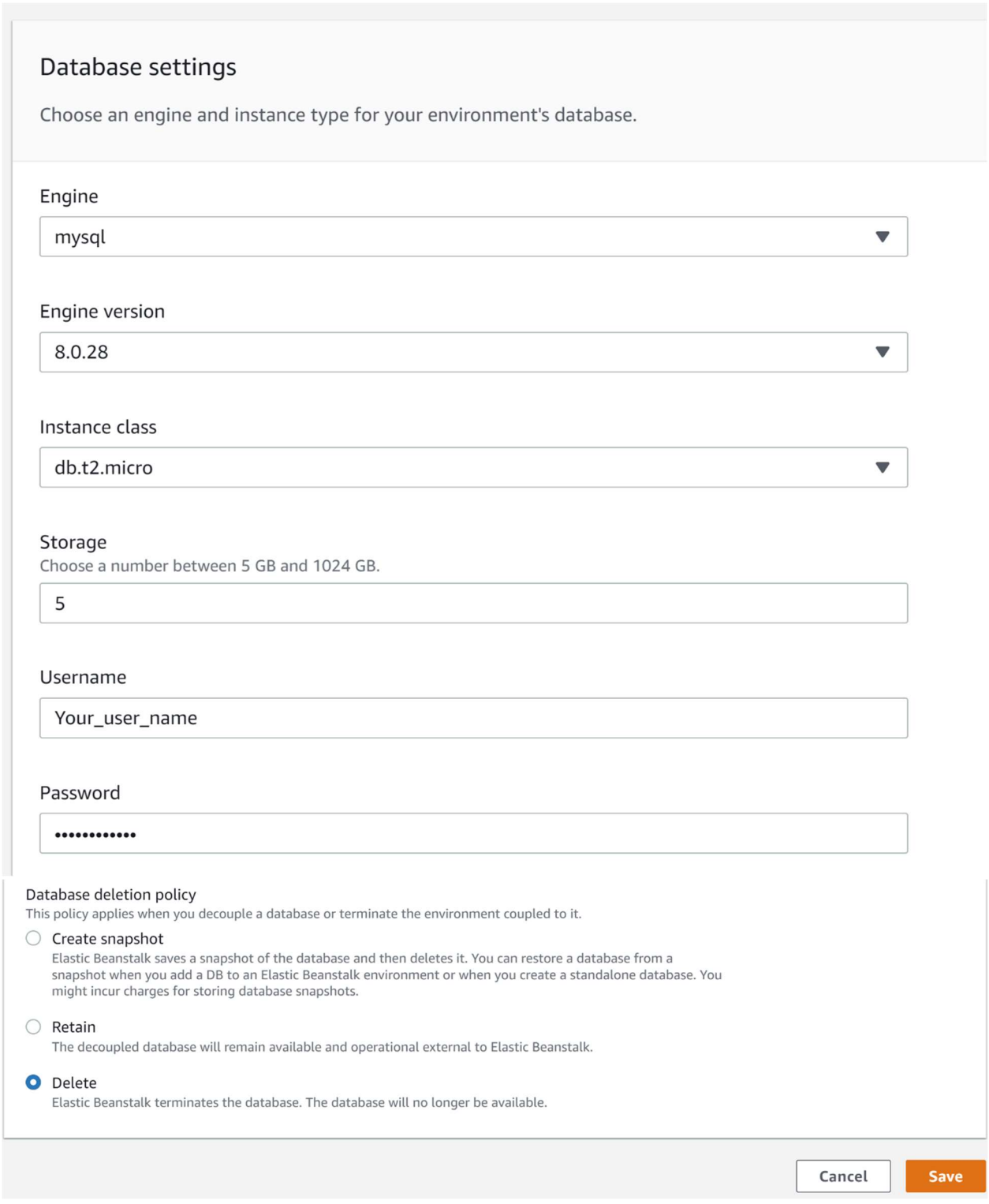
H. Under the Environment properties section, add the property name JAVA_HOME and the value /urs/lib/jvm/java. Next, add the property name SPRING_PROFILES_ACTIVE and the value prod. Click save.



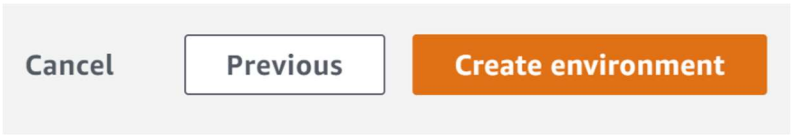
I. Back in the "Configure more options" page, click edit in the database section.



J. (In final production, you may want to click learn more where it says, "Add an RDS SQL database integrated with your environment. Learn more ")
For now, we will create a MySQL instance on AWS beanstalk. So in the Database settings, add a username and password, which are part of your environment variables in the application-prod.properties file in your application. For the demo application, choose "Delete" for the database deletion policy. Click save.



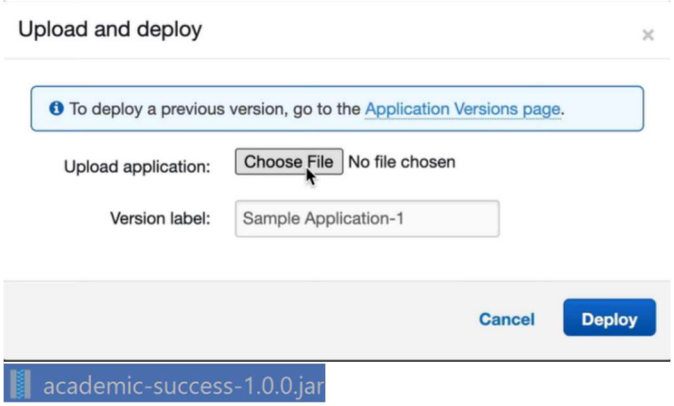
K. Back in the “Configure more poptions page”, click “Create environmental”



(It can take 10-15 minutes to create the environment)

L. Once the instance is running, click “Upload application.”

M. Click “Choose File.“ Select the academic-success jar file in the target folder, then click “deploy.”



(It can take 10-15 minutes to deploy)

N. The health status should be green. Click the URL to View the application online.