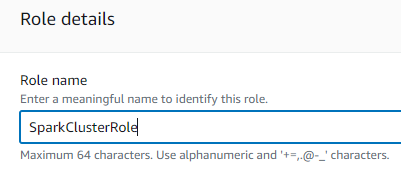
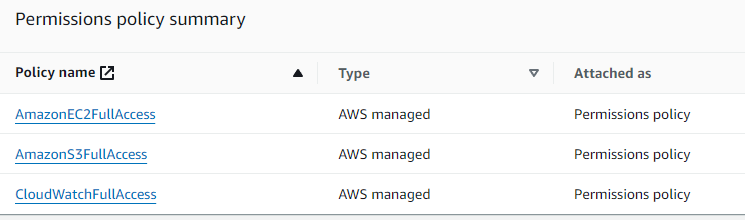
Create IAM Roles and Permissions

A screenshot of a computer

Description automatically generated

Apply necessary persmissions and role name





Attaching IAM Role to EACH Instance:

A screenshot of a computer

Description automatically generated

A screenshot of a computer

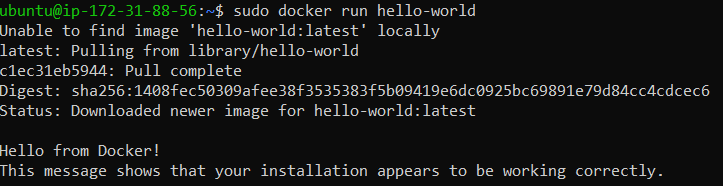
Description automatically generated

Make sure to download java and docker on to prediction node:

A black screen with white text

Description automatically generated

Install and verify docker is running on prediction node:



Download Spark on Master Instance

A screen shot of a computer

Description automatically generated

Make sure to set the Environment variables and verify them, after you do that start the Spark Shell

A computer screen shot of a program

Description automatically generated

Start the Master Script:



Verify Spark Master by opening web browser and typing your public dns of the master:

A screenshot of a computer

Description automatically generated

SSH into the worker nodes and update package list, install java, download and extract SPARK, set the environment variables and then start the worker nodes:  
A computer screen with text on it

Description automatically generated

IF YOU ARE HAVING TROUBLE ACCESSING YOUR UI MAKE SURE YOUR SECURITY GROUP HAS THE INBOUND RULES UPDATED

A screenshot of a computer

Description automatically generated

Now lets verify the worker connection by checking the Spark Master UI at:  
http://ec2-.......compute-1.amazonaws.com:8080

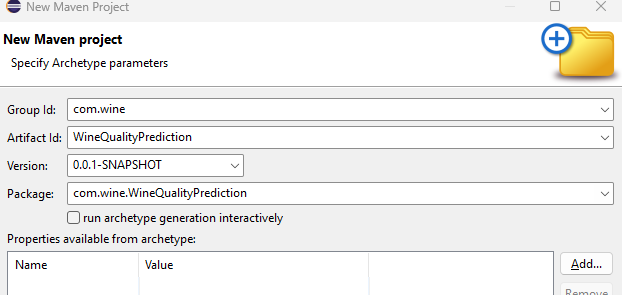
A screenshot of a computer

Description automatically generated

Make sure your S3 bucket has the 2 data sets provided and is accessible:  
A screenshot of a computer

Description automatically generated

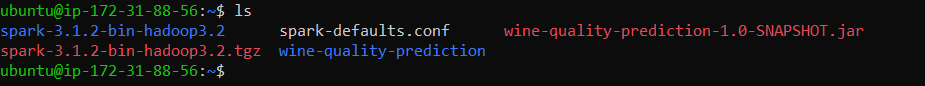
Now its time to set up and develop the Wine Quality Prediction Model Using Java in Eclipse and Maven to package it for the prediction node:



Once it is cleaned and packaged you will upload the .JAR file to the S3 bucket:\A black background with many colored lines

Description automatically generated with medium confidence

Download the Jar File to the Prediction Node EC2 using the SCP command on your local terminal



Make sure your worker nodes are on and have spark running

Create and clone repository:

A screenshot of a computer

Description automatically generated

Go back to the Prediction node:  
A computer screen with white text

Description automatically generated