

# Configuration Manual

MSc Research Project  
Research in Computing CA2

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**MSc Project Submission Sheet**



**School of Computing**

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**Programme:** Msc In Cloud Computing **Year:** 2023

**Module:** Research in Computing CA2

**Lecturer:** Dr Punit Gupta

**Submission Due Date:** 14 August 2023

**Project Title:** A Cost-Effective And Practical Solution For AWS Resources Management With Usage Visualization

**Word Count:** .....6..... **Page Count:** .....

I hereby certify that the information contained in this (my submission) is information pertaining to research I conducted for this project. All information other than my own contribution will be fully referenced and listed in the relevant bibliography section at the rear of the project.

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**Signature:** Bhushan Chaudhari

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# Configuration Manual

Bhushan Chaudhari  
Student ID: x21165840

## 1 Introduction

Detailed procedures and technical guidelines must be followed in order to create an extensive configuration manual for an AWS resource management system with consumption visualization.

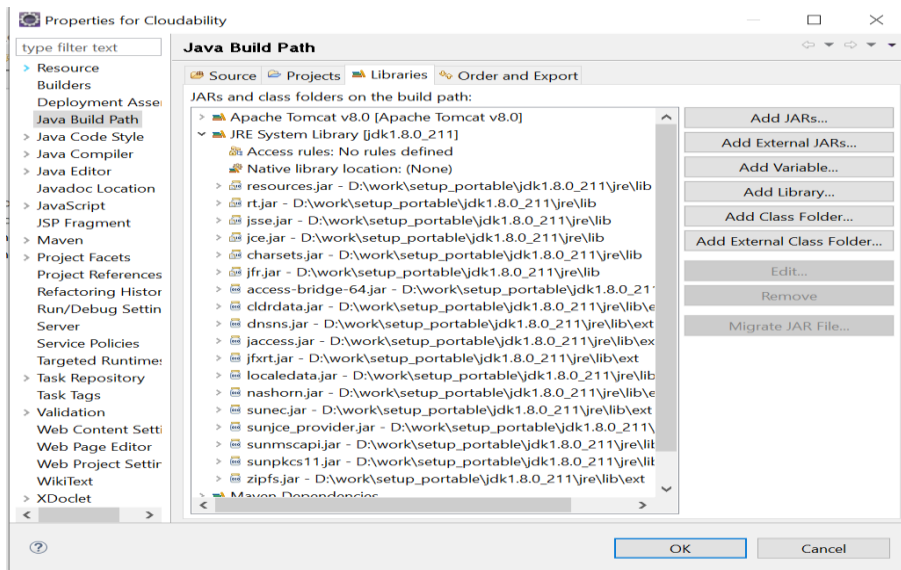
## 2 System Specifications

Hardware Configuration for the local run:

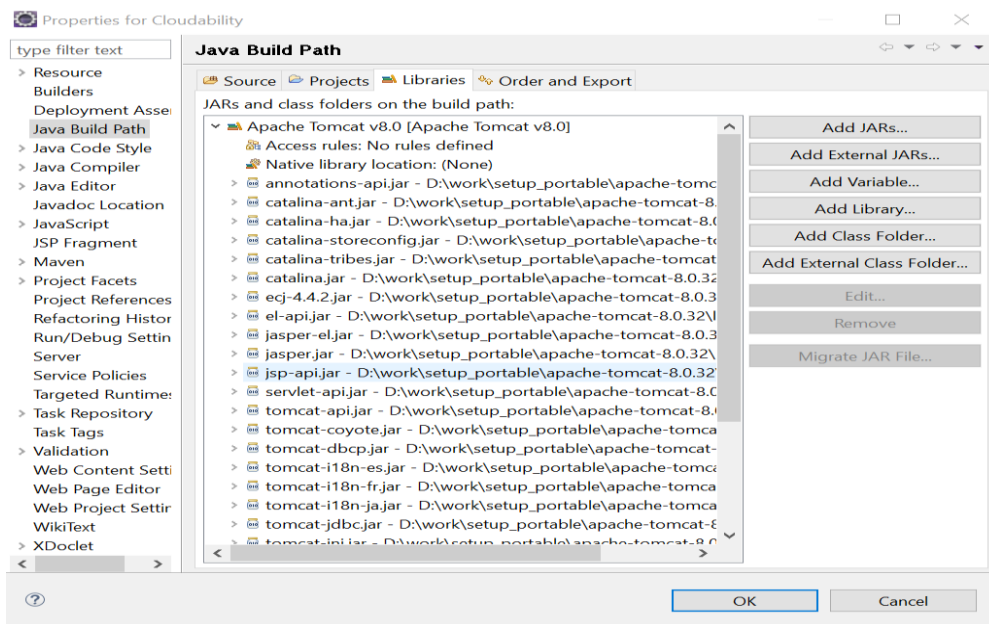
- Processor: Intel 11<sup>th</sup> Gen Core i5-1135G7 @2.4 GHz
- RAM: 16 GB DDR4 RAM 3200MHz
- Storage (SSD): 512GB
- Operating System: Windows 10, 64-bit

## 3 Setup Procedure

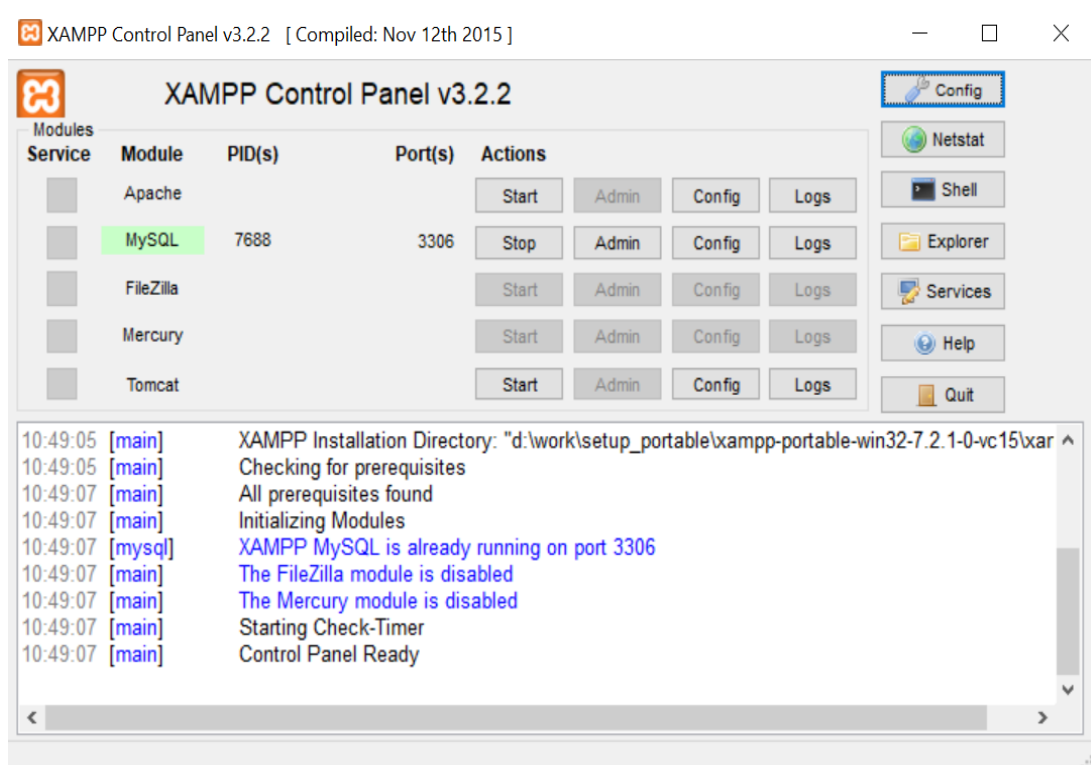
### 1. Setup JDK 1.8



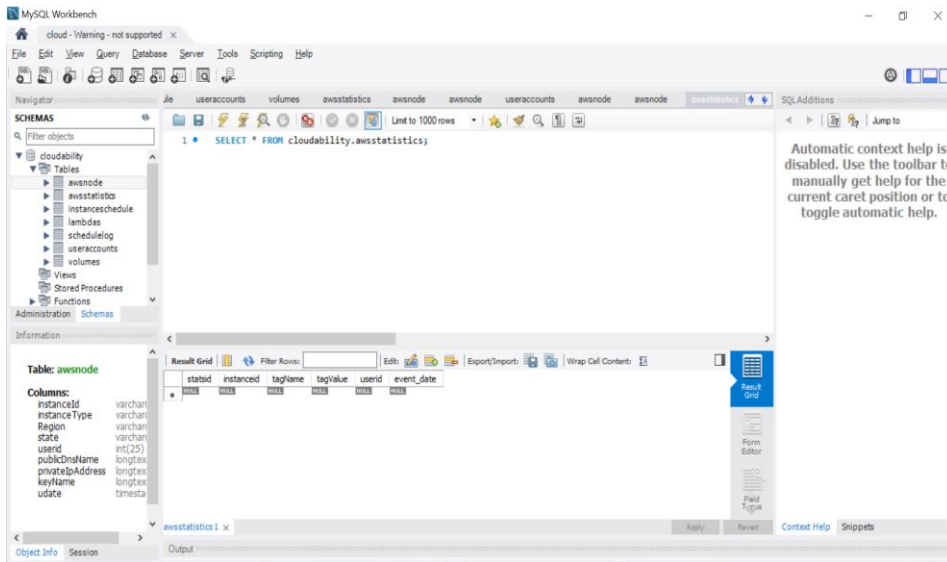
### 2. Setup Tomcat 8



### 3. Setup MySQL 5.6



### 4. View database entities through MYSQL GUI Browser



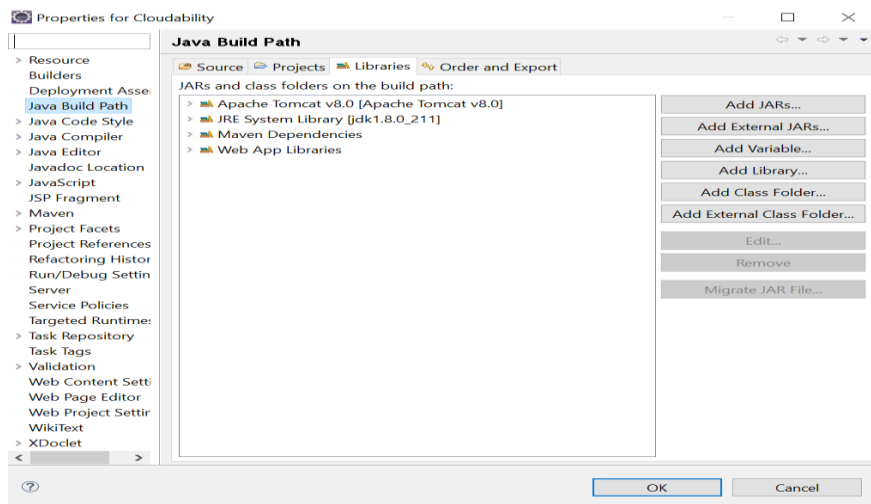
## 4 Dataset

```

1@relation test
2@ATTRIBUTE "% CPU Used for a month" NUMERIC
3@ATTRIBUTE "% RAM Used for a month" NUMERIC
4@ATTRIBUTE "% Volume Used for a month" NUMERIC
5@ATTRIBUTE "Network used for a month" NUMERIC
6@ATTRIBUTE "Decision 1-deallocate 0-allocate" {0,1}
7
8@data
9 10,2,0,10,1
10 30,5,2,10,0
11 40,2,10,5,0
12 5,5,0,5,1
13 10,1,0,10,1
14 30,1,2,10,0
15 40,1,10,5,0
16 5,5,0,5,1
17 10,1,0,10,1
18 30,1,2,10,0
19 40,1,10,5,0
20 5,5,0,5,1
21 10,5,0,10,1
22 30,5,2,10,0
23 40,5,10,5,0
24 5,5,0,5,1

```

## 5 Project Configuration



## 6 Java Packages

apache-log4j-1.2.15.jar

appd-exts-commons-1.1.2.jar

aws-java-sdk-1.11.224.jar

aws-java-sdk-cloudtrail-1.11.224.jar

aws-java-sdk-cloudwatch-1.11.224.jar

aws-java-sdk-cloudwatchmetrics-1.11.224.jar

aws-java-sdk-codebuild-1.11.224.jar

aws-java-sdk-core-1.11.224.jar

aws-java-sdk-costandusagereport-1.11.224.jar

aws-java-sdk-ec2-1.11.224.jar

aws-java-sdk-events-1.11.224.jar

aws-java-sdk-lambda-1.11.224.jar

## References

- [1] Lian, Y. C. (2017). Cloud Bursting Scheduler for Cost Efficiency. *IEEE 10th International Conference on Cloud Computing (CLOUD)*, (pp. 774-777). Honolulu, USA.
- [2] Mengistu, A. A. (2017). No Data Center" Solution to Cloud Computing. *IEEE 10th International Conference on Cloud Computing (CLOUD)*, (pp. 714-717). Honolulu, HI, USA.
- [3] S. Chaisiri, B. -S. (2012). Optimization of Resource Provisioning Cost in Cloud Computing. *IEEE Transactions on Services Computing*, vol. 5, no. 2, (pp. 164-177).