

# Configuration Manual

MSc Research Project  
Cloud Computing

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<b>Year:</b>	2022
<b>Module:</b>	MSc Research Project
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<b>Submission Due Date:</b>	31/01/2022
<b>Project Title:</b>	Configuration Manual
<b>Word Count:</b>	XXX
<b>Page Count:</b>	4

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# Configuration Manual

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## 1 Create your EC2 resources and launch your EC2 instance

1. Login to AWS account create EC2 instance
2. To create EC2 instance follow AWS create ec2 instance guideline <sup>1</sup>.
3. Once the EC2 instance start the status will turn into running green colour shown in below image.

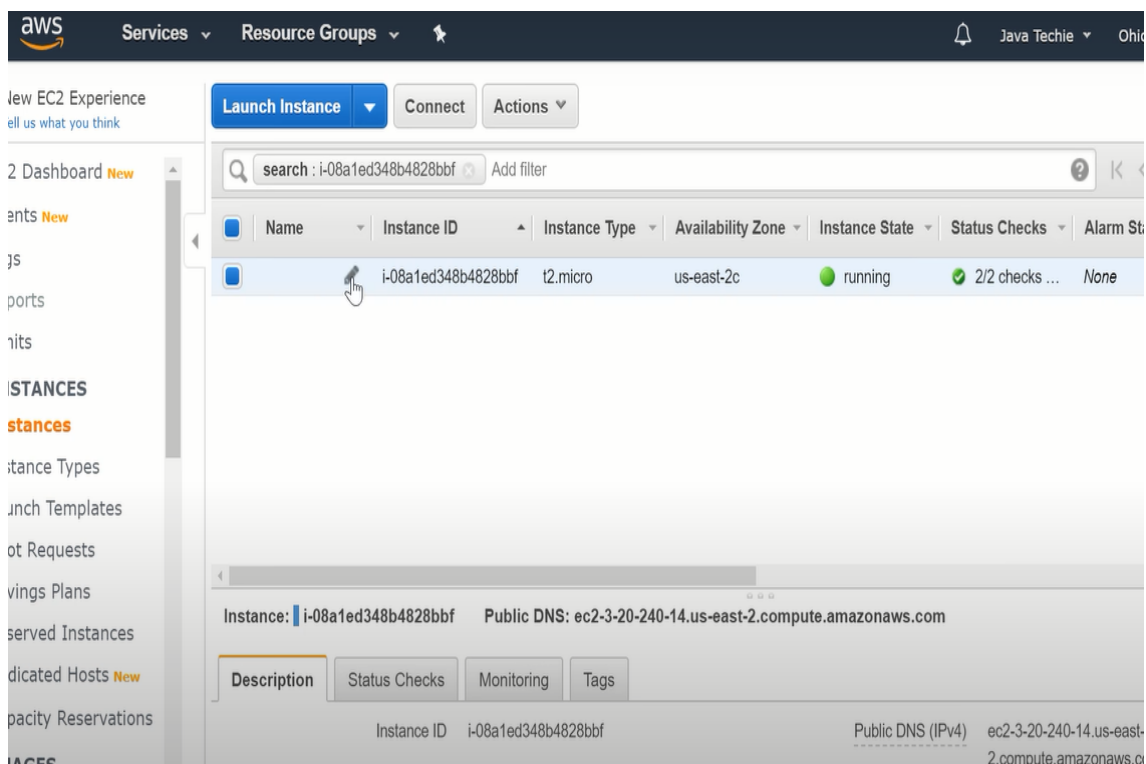


Figure 1: EC2 instance successfully started

## 2 Store Dataset in AWS S3 storage

1. Login to AWS account create S3 bucket

<sup>1</sup><https://docs.aws.amazon.com/efs/latest/ug/gs-step-one-create-ec2-resources.html>

2. create S3 bucket follow AWS create S3 instance guideline <sup>2</sup>.
3. Once the S3 bucket created its easy to upload the dataset in the S3 same like keeping files in the folder of the computer.

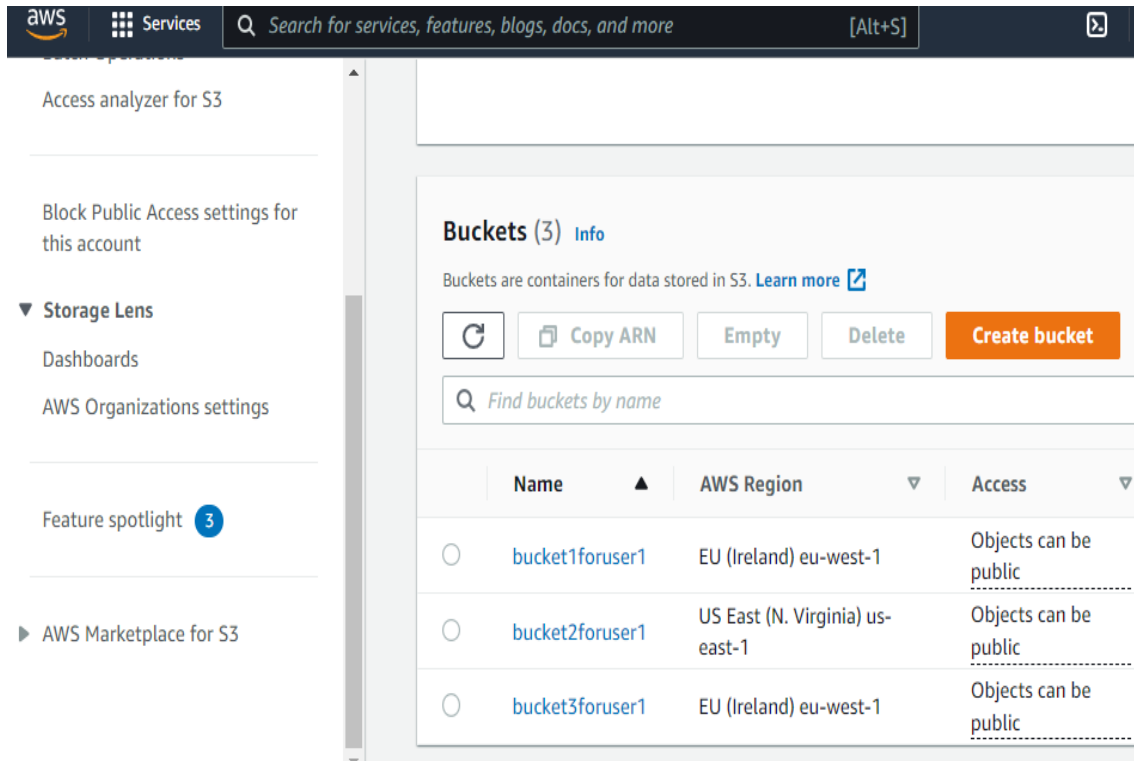


Figure 2: S3 bucket successfully created

### 3 Create AWS EMR cluster

1. Login to AWS account create EMR cluster
2. create EMR cluster follow AWS create EMR cluster guideline <sup>3</sup>.
3. Once the S3 bucket created its easy to upload the dataset in the S3 same like keeping files in the folder of the computer.

### 4 Install Anaconda with Python 3.0

1. After creating EC2 instance Anaconda should be installed exe need to installed in ec2 from the website <sup>4</sup>.
2. After installing anaconda python 3.0 need to be installed in the EC2 instance<sup>5</sup>.

<sup>2</sup><https://docs.aws.amazon.com/AmazonS3/latest/userguide/create-bucket-overview.html>

<sup>3</sup><https://docs.aws.amazon.com/emr/latest/ManagementGuide/emr-setting-up.html>

<sup>4</sup>[https://repo.continuum.io/archive/Anaconda2-4.1.1-Linux-x86\\_64.sh](https://repo.continuum.io/archive/Anaconda2-4.1.1-Linux-x86_64.sh)

<sup>5</sup><https://docs.aws.amazon.com/elasticbeanstalk/latest/dg/eb-cli3-install-linux.html>

```
Anaconda Powershell Prompt (Anaconda3)
(base) PS C:\Users\User> pip install apyori
collecting apyori
  Downloading apyori-1.1.2.tar.gz (8.6 kB)
building wheels for collected packages: apyori
  Building wheel for apyori (setup.py) ... done
  Created wheel for apyori: filename=apyori-1.1.2-py3-none-any.whl size=5974 sha256=fa67f7f8fb11534c2af97da9c3172cc21f7515c543e642a6420a58276852101
  Stored in directory: c:\users\user\appdata\local\pip\cache\wheels\32\2a\54\10c595515f385f3726642b10c60bf788029e8f3a132e3913a
Successfully built apyori
Installing collected packages: apyori
Successfully installed apyori-1.1.2
(base) PS C:\Users\User>
```

Figure 3: Anaconda console

## 5 Run code with jupyter Notebook

1. Install jupyter in anaconda console
2. install pip using the website <sup>6</sup>.
3. open given code file in the jupyter note

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<sup>6</sup><https://jupyter.org/install>

The screenshot shows a JupyterLab environment with a browser window at the top. The browser tabs include 'Apps', 'WhatsApp Web', 'TCS mail', 'Moodle Dashboard', 'TimeTable', 'Aws educate', and 'Laptop 1366x768 Des...'. The JupyterLab title bar reads 'jupyter RIS-NOV-211121-1032AM-Shivam cloud dissertation-SB2 Last Checkpoint: 8 hours ago (at ...)'. The interface includes a menu bar (File, Edit, View, Insert, Cell, Kernel, Widgets, Help) and a toolbar with icons for file operations, running, and downloading. The main workspace contains three code cells:

- Cell 1: A prompt 'Type *Markdown* and LaTeX:  $\alpha^2$ '.
- Cell 2: A prompt 'Type *Markdown* and LaTeX:  $\alpha^2$ '.
- Cell 3: A code cell with the following Python code:
 

```
In [1]: import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
from apyori import apriori
```

Below the code cells, there are two more prompts: 'Type *Markdown* and LaTeX:  $\alpha^2$ ' and 'In [2]: store\_data= pd.read\_csv("groceries.csv", header=None)'. Below this, there is another code cell: 'In [3]: store\_data.head()'. The output of the second cell is shown as 'Out[3]:' followed by a table header with columns 0 through 25, where columns 23, 24, and 25 are labeled 'Item', 'Item', and 'Item' respectively.

Figure 4: Anaconda console