COMP90024 2021S1 Project2 Report

**ABSTRACT**

**This the report for the COMP90024 Project2. In this project we are going to analyze twitter data base on Melbourne Research Cloud. In section 1, we will introduce how to create an instance, build a running environment on the instance, and start applications on instances.**

# User guide

## Deploy instances

In this step, we use Ansible to set dependencies, security groups, volumes, and images, and dynamically generate instances in MRC through these.

In the beginning, we install the dependencies required to run the script task (such as Python-pip, openstack sdk and update pip) and get the image we need from openstack. Then define the volume required for each instance (these volumes will be used to store data such as tweets) and define the security rules for each instance (We will open all ports of the instance for emergency and convenience.). Finally, use all the above settings to create four instances.

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| Hosts | Role | Description |
| localhost | Instance-common | Install pip, update pip, and openstack sdk dependencies. |
| Instance-images | Retrieve all images from openstack and select the right one we use. |
| Instance-volumes | Set the volume required for each image. |
| Instance-security-groups | Create security groups and their rules |
| Instance-creation | Create instances on MRC and save the IP address of each instance to the inventory folder. |

### 1.1.1 How to run

Run ./launch-instances.sh in ubuntu system, make sure you have located the location of this file.

## 1.2 Setup environments

### 1.2.1 How to run

## 1.3 Start applications

### 1.3.1 How to run