ZEWAIL CITY OF SCIENCE AND TECHNOLOGY

CIE 547

CLOUD COMPUTING TECHNOLOGY

Twitter Influencers

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1 Requirements

The project aims to create a program that finds the top 10 influencers that have the highest number of followers on Twitter and run this program on at least 2 cloud service providers (CSP). In this project, we ran it on Amazon Web Service (AWS) and Microsoft Azure. The report flow goes from introducing the created program, showing the results of the program, and presenting a comparison between the results on each CSP.

2 Program Results

2.1 Influencers

Table 1. below shows the program results of the top 10 influencers with highest number of followers on Twitter.

Account ID	No. of followers
115485051	3383
40981798	3216
43003845	2735
813286	2647
22462180	2471
34428380	2462
15913	2133
7861312	2074
3359851	1905
11348282	1707

Table 1: Top 10 influencers on Twitter

3 Running the code on different Cloud Service Providers
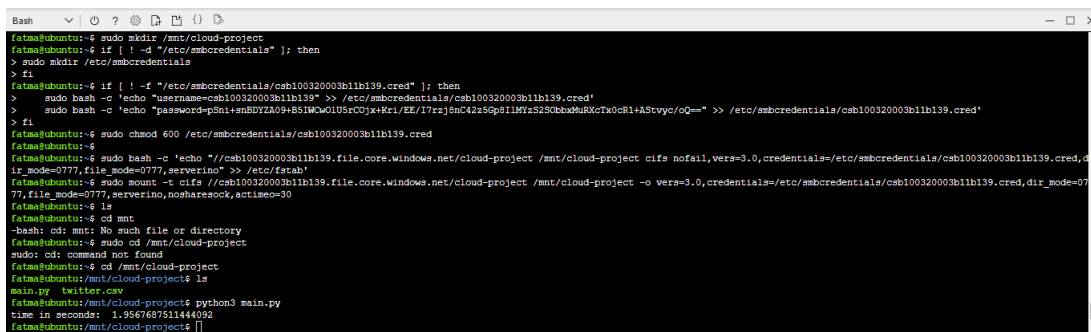
3.1 CSPs specifications

3.1.1 AWS

Figure 1: Using putty to run the program on the AWS VM

Amazon EC2 instance:

- Instance type: t2.micro

- Platform: Ubuntu Linux/UNIX

- Volume size (GiB): 8

- Number of vCPUs: 1

3.1.2   Azure

Figure 2: Azure cloud shell

For some reason, while provisioning the first VM ever on Azure, choosing a 1vCPU was not an option. It displayed a message saying "Insufficient quota - family limit". Therefore, we choose a VM having 2 vCPUs, and we will compare the results accordingly.

Azure Virtual Machine:

- Instance type: Standard D2as v4 by Microsoft

- Platform: Ubuntu Server 20.04 LTS - Gen2

- Volume size (GiB): 8

- Number of vCPUs: 2

3.2   CSPs Comparison

Table 2 shows the comparison between AWS and Microsoft Azure regarding the execution time of the program, the starting time of the VM, and the price of the VM.

	AWS	Microsoft Azure
Execution time	1.0754 sec	1.9568 sec
Starting VM time	25 sec	1 min 22 sec
VM price	$0.007 per hour	$0.1070 per hour

Table 2: CSPs Comparison

Surprisingly, the results show that AWS VM (with 1 vCPU only), was approximately 1.8 times faster than Azure VM (2 vCPU). Besides, AWS interface was way more friendly and intuitive. The time needed to start the VM was much faster in AWS also.