CIS*4010
Assignment 1
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Part One
1.

An example for Infrastructure as a Service (IaaS) would be Amazon Web Services (AWS). AWS provides flexibility, customizable and on-demand virtual computing resources. AWS enables users to rent virtual servers, which lets them run their own application. This directly helps it contribute to IaaS where the user is able to manage everything above the infrastructure level. With AWS, users are able to scale from small to large quickly in response to demand. This on-demand feature correlates to IaaS due to scalability being a key feature. Lastly, a component IaaS values is cloud providers handle the infrastructure management meaning that the upgrades are all taken care of without the user having to invest time, AWS handles this perfectly.

An example for Platform as a Service (PaaS) would be Microsoft Azure. It offers an environment that allows developers to build, test and deploy. This is a core feature in platform tools for application development. Azure manages things like server, storage and networking so that the user doesn't have to waste valuable time, this makes it efficient and easier to manage which is PaaS focus. Azure has a large diversity in integrated tools/services such as databases, AI and many learning tools for machines so that users can have an easier development process.

An example for Software as a Service (SaaS) would be Google Workspace. This is a widely used application that can be accessed through a web browser which defines a SaaS feature. In Google Workspace, all the data storage and networking is managed by the provider so users don't have to worry about full storage or offloading, the provider taking responsibility makes it a SaaS model. Relating to storage it is able to scale from small to large, creating a flexible environment which is SaaS general offering.

2.

I am not too familiar with using any public cloud provider, which is why I was so interested to take this course due to my lack of knowledge despite being a computer science student. This past summer I worked at my internship with Siemens Canada and we used a bit of Azure DevOps. From my brief knowledge I learned that ADO is highly scalable and flexible which is a huge component to cloud computing. In company working environments your project grows or the number of users will increase and ADO can accommodate this growth with efficiency. One major aspect that I think is incredibly useful is that it is accessible anywhere with an internet connection. The ability to collaborate with other developers using tools for project management can help boost the timeline for the project. There are many reasons why ADO is a

great alternative for other cloud providers but these 2 stuck out to me as a newcomer to the platforms.

Testing A1

Task 1 & 2

```
C:\Users\hudan\Desktop\SEM8\4010\A1>python a1.py
Welcome to the AWS S3 Storage Shell (S5)
You are now connected to your S3 storage
S5> ▯
```

Task 3

```
S5> locs3cp test.txt /huda-a1/a1/test.txt
Please change to an S3 bucket before executing this command.
S5> chlocn /huda-a1
Current location changed to: /huda-a1/
S5> locs3cp test.txt /huda-a1/a1/text.txt
File 'test.txt' successfully copied to '/huda-a1/a1/text.txt'
S5> ▯
```

Task 4

    a)

```
C:\Users\hudan\Desktop\SEM8\4010\A1>python a1.py
Welcome to the AWS S3 Storage Shell (S5)
You are now connected to your S3 storage
S5> create_bucket /huda-bucket-test
S5> ▯
```

    b) & c)

```
S5> chlocn /huda-a1
Current location changed to: /huda-a1/
S5> cwlocn
huda-a1:
```

d)

```
S5> list
boto3-huda
hnadeem4010-demo-01
huda-a1
huda-bucket-test
huda-new
S5> chlocn /huda-a1
Current location changed to: /huda-a1/
S5> list
a1/
S5> chlocn /hnadeem4010-demo-01
Current location changed to: /hnadeem4010-demo-01/
S5> list
Slides/
S5>
```

Extra:

Exit and quit

```
S5> list
Slides/
S5> exit
Sucessfully Exited!
```

```
S5> quit
Sucessfully quit!!
```

Access Local (cd and ls)

```
C:\Users\hudan\Desktop\SEM8\4010\A1>python a1.py
Welcome to the AWS S3 Storage Shell (S5)
You are now connected to your S3 storage
S5> cd
C:\Users\hudan\Desktop\SEM8\4010\A1

S5> ls
 Volume in drive C is Local Disk
 Volume Serial Number is 4459-1FFE

 Directory of C:\Users\hudan\Desktop\SEM8\4010\A1

2024-01-29  07:23 PM    <DIR>              .
2024-01-28  05:34 PM    <DIR>              ..
2024-01-29  07:26 PM             7,132 a1.py
2024-01-29  03:51 PM               140 config
2024-01-29  03:53 PM             1,364 createBucket.py
2024-01-29  04:00 PM             1,110 listBuckets.py
2024-01-29  06:10 PM             3,292 mytester.txt
2024-01-29  06:15 PM                15 newtest.txt
2024-01-29  07:21 PM                 0 README
2024-01-29  07:34 AM               527 s3Functions.py
2024-01-29  03:44 PM               117 S5-S3.conf
2024-01-29  07:23 PM                12 test.txt
2024-01-29  03:53 PM    <DIR>              __pycache__
              10 File(s)         13,709 bytes
               3 Dir(s)     249,606,144 bytes free

S5> []
```