**Title: Assignment 2, Cloud Computing**

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**1. Virtual Machines in Google Cloud**

* Use the Google Cloud Console to create a VM instance.
  + Select an appropriate machine type, operating system, and region.
  + Configure the firewall to allow SSH traffic.

A screenshot of a cloud

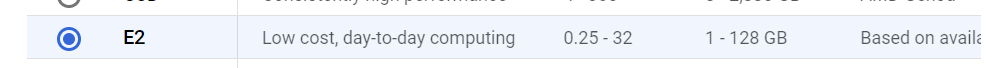
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A screenshot of a computer

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* Write a brief explanation of the choices made during setup.

Have chosen basic configurations to keep low cost. For region chose asia-east2(Hong Kong) and zone asia-east2-a, probably as closest to my current location. 

With configurations for basic purpose.

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* Use the SSH option from the Cloud Console to connect to your VM.

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* Install a web server (e.g., Apache or Nginx) on the VM.

A screen shot of a computer screen

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A computer screen with white text

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* Create a simple HTML page to serve as a test.

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#### 2. Storage Solutions in Google Cloud

* **Create a Cloud Storage Bucket**
  + Use the Google Cloud Console to create a Cloud Storage bucket.

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* Set the bucket's access controls (public/private).
* Upload a sample file (e.g., image or document) to the bucket.

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**Implement Object Lifecycle Management**

* + Set up a lifecycle rule for your bucket to automatically delete objects after a certain period (e.g., 30 days).

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Explain the use cases for Cloud Storage and the benefits of lifecycle management.

There are a lot of use cases for cloud storage, it makes possible to access data from different devices and applications and it is applicable for backups. Lifecycle management allows to set rules that can minimize memory usage.

#### 3. Networking in Google Cloud

* **Set Up a Virtual Private Cloud (VPC)**
  + Create a new VPC network with subnets.
  + Configure firewall rules to allow traffic between your VM and the internet.

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Recreated VM, because deleted first one

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* Use the VM to ping an external server to verify connectivity.

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* Discuss the importance of VPCs and firewall rules in cloud networking.

VPC provides networking functionality to VM instances, k8s clusters and serverless workloads and makes globally accessible and firewall rules guarantees the security.

#### References

#### https://cloud.google.com/compute/docs/instances?\_gl=1\*1a0z2dc\*\_ga\*MTcxMzI2MzQxMS4xNzI2NzM3NTI1\*\_ga\_WH2QY8WWF5\*MTcyOTE1NTU4Mi40LjEuMTcyOTE2MTk1Mi4zOC4wLjA.

* <https://cloud.google.com/vpc/docs/overview>
* https://cloud.google.com/storage/docs