What is a cloud?

* Remote servers. For data storage, someone provides
* Someone else’s machine
* Server, software and databases on those servers
* Primarily provide storage and computing power ( running programs )
* The utilize economies of scale to be cost effective for consumers
* On demand, pay as you go

What different kinds of services do clouds provide ( hint: IaaS, PaaS, SaaS)

* IaaS - Infrastructure as a service, to allow us to use resources that act like they were our on premise servers, VM, databases, storage of data ( we use the computer )
* PaaS - Platform as a Service- allow us to use and manage business software without configuring underlying infrastructure ( we use the thing that is running on the computer )
* SaaS - Software as a service -- allows us to use some service over the internet without having to know how its maintained or anything about the infrastructure ( email, calenders, office tools)

What are the benefits of a cloud

* Cool services from companies
* Elastic resources ( easily get exactly what we need, no more no less)
* Technical Support ( big companies love having someone to fix things )
* Cost effective ( almost always we save money using cloud services )

Downsides?

* Potential security risks ( not on our premise )
* Potential connectivity issues
* Potential downtime ( solved by cloud providers offering uptime guarantees in the Service License agreement)
* Hard to switch ( complexity in having multiple different cloud providers )

What is GCP?

* Google Cloud Platform, cloud provider run by google
* Private worldwide network - internal traffic never has to hit the internet

When you make a new account with gcp what do you get?

* Some services are always free, and 300 dollars credit for doing whatever

What are some of the services that GCP provides?

* Compute engine - IaaS Virtual machines
* Cloud Storage - Bucket based object storage
* App Engine - serverless technology for running an entire application
* Kubernetes Engine - managed K8s clusters
* Cloud Functions - serverless functions as a service
* Cloud SQL - PaaS managed sql database

What is cloud Shell?

* Web browser terminal specifically for interacting with gcp resources
* It has cloud sdk already installed

What is cloud SDK?

* Command line tool for doing things on GCP

How does GCP organize resources

* Projects - projects contain related resources
* Folders - contain folders and our projects
* Organization - which contains many folders

What are regions and zones?

* Regions are geographical areas like North America and Europe
* Zones are in regions and are isolated from each other
* Regions have multiple zones

PoPs?

* Points of Presence ( edge locations ) are the places where we can connect from the public internet into GCP’s private network

What are the requirements for the Associate Cloud Engineer Cert ( you will be getting this one)

What are some tools that might help you get it?

* The official study guide for the ACE

What are the requirements for the Professional Cloud Developer Cert ( you’ll get this probably some time next year)

Any tools to help get it?