

## Understand the difference between a region, an Availability Zone (AZ) and an Edge Location.

- A Region is a physical location in the world which consists of two or more Availability Zones (AZ's).
- An AZ is one or more discrete data centers, each with redundant power, networking and connectivity, housed in separate facilities.
- Edge Locations are endpoints for AWS which are used for caching content. Typically this consists of CloudFront, Amazon's Content Delivery Network (CDN)

IAM allows you to manage users and their level of access to the AWS console.

It is important to understand IAM and how it works, both for the exam and for administering a company's AWS account in real life.

**Key Features of IAM**

**Identity Access Management (IAM)** offers the following features;

- Centralised control of your AWS account
- Shared Access to your AWS account
- Granular Permissions
- Identity Federation (including Active Directory, Facebook, LinkedIn etc)
- Multifactor Authentication
- Provide temporary access for users/devices and services where necessary
- Allows you to set up your own password rotation policy
- Integrates with many different AWS services
- Supports PCI DSS Compliance

Users - End users such as people, employees of an organization, etc.

Groups - A collection of users. Each user in the group will inherit the permissions of the group.

Policies - made up of documents, called policy documents. These documents are in a format called JSON and they give permissions as to what a user's group/role is able to do.

Roles - You create roles and then. assign them to AWS Resources.

```
User name,Password,Access key ID,Secret access key,Console login link  
ling.huang,  
(2DnSg&u{=HGC6T,AKIASI4E2AJSBKNTSGPK,MkfDAJMUHYPrgbYiXNk+Wm5XrX3JC/mpT5XQ  
XKzQ,https://ling-acloudguru-2021.signin.aws.amazon.com/console
```

### What Have We Learnt So Far?

- **IAM is universal.** It does not apply to regions at this time.
- The **"root account"** is simply the account created when first setup your AWS account. It has complete Admin access.
- New Users have **NO permissions** when first created.
- New Users are assigned **Access Key ID & Secret Access Keys** when first created.
- **These are not the same as a password.** You cannot use the Access key ID & Secret Access Key to Login in to the console. You can use this to access AWS via the APIs and Command Line, however.
- **You only get to view these once.** If you lose them, you have to regenerate them. So, save them in a secure location.