**S3**

Soft limit of 100 buckets, hard limit of 1000 buckets (can be increased to 1000 through support requests)

Objects can be 0B to 5TB in size

S3 is an object storage system. It is not a file storage system.

* You cannot mount an S3 bucket as a drive

Be certain to consider S3 when thinking about inputs to other AWS services, or as an output from them

**CloudFormation**

Resources inside of a CloudFormation template are called Logical Resources.

For any logical resource in CloudFormation, a physical resource is created in AWS. That is the point.

* If an EC2 instance is defined as a logical resource, an actual EC2 instance is made in AWS

In a YAML template, you don’t need to include an “AWSTemplateFormatVersion” key, but if you do, a “Description” key *must* immediately follow it:

Text

Description automatically generated

**High-Availability vs Fault Tolerance vs Disaster Recovery**

High-Availability: aims to ensure an agreed level of operational performance, usually uptime, for a higher than normal period.

* Provides services as often as possible. Not 100% failsafe, and being failsafe is *not* the point of high-availability systems.

Fault-Tolerance: enables a system to continue operating properly in the event of the failure of some (one or more faults) of its components.

**DNS Record Types**

CNAME records cannot point to IP addresses; they need to point to another record itself

**IAM Users**

IAM Users are an identity used for anything requiring long-term AWS access: e.g.: humans, applications, service accounts.

ARN: Amazon Resource Name – Uniquely identifies resources in AWS accounts

* arn:partition:service:region:account-id:resource-id
* arn:aws:s3:::catgifs

**You can only have 5,000 IAM Users per account**

IAM User can only be a member of 10 groups, max

**IAM Groups**

You *cannot* log into an IAM Group. They have no credentials. The exam may try to trip you up on this.

Groups can have policies (both Inline and Managed policies) attached to them