Module 3 (Components of Cloud Computing)

1. **Overview of Cloud Infrastructure:**
   1. A cloud service provider provides its cloud infrastructures/services **in different regions** (e.g. AWS has regions in US East, US Ohio, Asia East etc). This is done such that if there’s disruption in one of the regions (e.g. due to earthquake/natural disasters), the other regions won’t be affected.
   2. Each region can have **multiple Availability Zones**, each AZ has their own computing resources (e.g. in AWS -> you have US East-1 and US-East-2 zone)
   3. Cloud providers in general provide the following computing resources – **Virtual servers** (VMs – software based), **Bare metal servers** (Physical servers, not virtualized software), **Serverless computing resources** (Abstraction layer on top of VMs).
   4. Each Virtual Server or Bare metal server has their own **local storage** (which will be **deleted**, when the VS or BMS is **deleted/decommissioned**). Hence there are other types of storage options available, such as **Block storage, File storage, Object storage** (to **ensure more persistent data storage**). **Object storage** is the **most commonly used type** in the cloud… as it is resilient & highly distributed.