Azure Cloud:

* Different Types of services in Cloud

1. IAAS : you get raw hardware, install your choice of OS. You have control on this service but overhead of managing the Infra team.  I.e. Amazon EC2/Azure VM
2. PASS : You will get an OS installed by a Cloud provider and install your apps on it. I.e. Mobile Apps or Web Apps
3. SAAS : You will use the software with purchasing it or just rent it out for use. i.e. when launching a VM on Azure, we are not buying the OS, we are basically renting it for the time you will be running that instance.

* Cloud Computing :- It is use of servers on the internet for “storage”, “manage” and “process” data. Instead of using our own resources, we are using someone else and paying an amount for the time we use.

* Different Type of Cloud deployment models:-

1. Public : The infrastructure is owned by your cloud provider and the server that you are using could be a multi-tenant system.
2. Private : The infrastructure own by you or your cloud provider and provided exclusively. (Its dedicated server)
3. Hybrid : Combination of Public and Private cloud where you host sensitive data on on-prem/Private cloud and public facing websites on public cloud.

* Resource Manager: It manages infrastructure which includes a number of services. It is useful to deploy, manage and delete all the resources together using a simple JSON script.

* Roles and why do we use them

1. Web Role : A web role is basically used to deploy a website, using languages supported by the IIS platform
2. Worker Role : A worker role is more like an help to the Web role, it used to execute background processes unlike the Web Role which is used to deploy the website.
3. VM Role : The VM role is used by a user to schedule tasks and other windows services. This role can be used to customize the machines on which the web and worker role is running.

* Availability Set: :Logical grouping of VM that allows Azure to understand how your application to build to provide redundancy and availability.

* Network Security Group :- NSG contains list of Access Control Lists(ACL) that allow or deny network traffic to subnet, NICs or both
* Break-fix issue :- Technical problems are called break-fix issue, it is an industry term which refers to “work involved in supporting a technology when it fails in the normal course of its function, which requires intervention by a support organization to be restored to working order”
* What is horizontal/vertical scaling