Getting Started with Azure

AZURE provides infrastructure and services for your application/business needs to run on cloud. So to say, in their datacenters.   
  
To access Microsoft Azure, you’ll need a azure account with a active subscription.

1. Azure Account
   1. Used to uniquely identify a user
2. Azure Subscriptions
   1. an Account can have many subscriptions
   2. Billing is based on a subscription
   3. A subscription is the initial
   4. Free Trial
      1. As the name says, one month Free trial subscription can be availed by a new user
   5. Pay-as-you-go
      1. Pay as you go subscription is when you have your credit card linked to a subscription and will be charged at the end of the month for the resources you used
   6. Visual Studio
   7. Enterprise Subscription
3. Resources/Recourse Group
   1. A resource is any manageable item in azure
      1. Virtual Machine
      2. Storage account
      3. Web App
      4. VirtualNetwork
   2. ResourceGroup is a logical grouping of the resources
   3. You can place resource in any of the location worldwide and pricing slightly varies based on the geography
   4. You can group some of the resources to a Resource Group

Ex: Grouping all the resources specific to Env (Dev,QA and Prod)

Helps you in providing access at the resource group level

1. Azure Services
   1. IaaS - VMs
   2. PaaS – Web Apps, Storage Account, Azure Functions etc.,
      1. These are the services offered by azure where you don’t need to manage them
      2. For Example, Consider StorageAccount. It’s a Storage solution provided by azure. Under the hood, they’ll have the VM running to store all the data. The VM has operating system. They develop some APIs for you to use the VM’s HDD. They implement security/encryption for the storage. They maintain the VM and guarantee a up time. SLA will be different for different resources.
      3. So, Storage Account comes under PaaS ad it’s a service that’s offering what you need without asking you to manage it.

Virtual Machines

1. Why you need a VM ?. Why not use the services ?
   1. Azure offers almost all the services that you require through PaaS.
      1. You’ll have a web App for hosting Wed Applications/APIs
      2. You’ll have Azure Functions, Azure Batch Jobs for Backend Jobs
      3. You’ll have storage accounts for storing and retrieving data
      4. You’ll have Redis Cache as a service for caching data
   2. Why you need a VM ?
      1. PaaS is slightly costly as Microsoft is managing it
      2. You’ll have control over Patching the VM that’s used for your Storage Account
      3. May be that might comply with your company’s security policy
2. Components in a VM
   1. Image – There are some Images that you can select from while creating a VM. Ex: Windows Datacenter 2016 R2, Windows with VisualStudio etc.,
   2. CPU and Memory – you can Select from the options available
   3. Network - Networking components
   4. Storage – you can select the storage from the options provided. SSD/HDD
3. Creating a VM
   1. As you know already, VM is a resource