Here is the formula to calculate the IOPS :

IOPS = 1/(Avg. Latency + Avg. Seek)(ms) (per Disk )

Total IOPS = IOPS \* Total number of Disks.

If have only 1 GB, you can only do 3 Input/Output per second. If you have 100 GB, you can expect 300 IOPS. If you have 3334 GB, you can expect up to 10000 IOPS.

D: 24/06/2020

Shared tenancy : Underlying hardware shared with multiple customers.

Dedicated tenancy : H/w Shared with only one customer.

--> Dedicated Instance

--> Dedicated Host

Volumes :

Root Device Types :

--> Instance Store VOlumes :

--> EBS Volumes

Instance Store Volumes:

--> No FREE TIER ELigibility

--> We cannot STOP/Start the insatnce.

--> Data is Ephemeral (Storage is Ephemeral).

--> Due to any reson, If instance is Stopped / Underlying Hardware failure happens, we will loss all the data...!!!!

--> We cannot resize the volumes.

EBS : Elastic Block Storage..

Root Volume: Runs OS : gp2, io1 & standard..

General Purpose SSD : GP2 : Generally we use this, Supports most of the workloads, dev, test, low-latency interactive applications..

Min: 1 GB , Max 16 TB

Performance : 1 GB we will get 3 IOPS... With Min of 100... Max: 16,000

Provisioned IOPS : io1 : Highest performance ebs volumes.. I/O Intensisive application, Relational DB, If you application required specific IOPS count..

Min: 4 GB , Max 16 TB

Performance : 1 GB we will get 50 IOPS... But we can choose required IOPS count..

Max: 64,000 (NITRO Instance)

Magnetic : standard : cheapest storage option.. IOPS N/A, We will get base performance..

Min: 1 GB , Max 1 TB

Throughput optimised HDD : St1 : low cost HDD volume, BigData, Data warehousing, log processing.. IOPS: 500.. Throughput : 500 MB/s..

Min: 500 GB , Max 16 TB

Cold HDD : sc1 : St1 : lowest cost HDD volume, Fewer scans per day.. BigData, Data warehousing, log processing.. IOPS: 250.. Throughput : 250 MB/s..

Min: 500 GB , Max 16 TB

VOlume Performance we measure using IOPS (Input and Output per Second).

\*\* Decrease size is not possible.

Task :

--> Add a new volume to your instance, Vol: 1 gb, GP2.. and make it avialble..

--> Increase the volume size to 2gb and make it avilable at OS level.

Task 2 : Launch another ec2 instance is same AZ as Task 1... , Detach the 2gb volume from task 1 instance and attach it to task 2 instance, verify all data avialble or not..!!!

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