Storage Types :- Block Storage & File Storage

* What is Block storage ? Hard disk attached to the computer

AWS

**Block** :- EBS ( Elastic Block Storage)

* More Durable
* Lifecycle is not tied to EC2 Instance

**Instance store**

* Temporary Data
* Lifecycle is tied to EC2

File Storage :- EFS (Linux Instances)

FSx (Windows File Server)

Fsx for lustre (High Performance)

Provision of EBS :-   
- Increase size when you need it

* Attach it to any ec2 instance & also you can de-attach it
* 99.999% available & replicate it within the same region

Features EBS Vs Instance Store

Use Case Permanent Ephemeral Storage

Snapshot Yes No

Speed Lower High

Lifecycle Separate from Ec2 Tied with Ec2

Boot time Low High

Size Flexibility Increase size anytime Fixed Size

**Feature**  **HDD**  **SSD**

Performance Low High

Operation example Big data workloads or streaming Transaction

Cost Low Expensive

**EFS : Elastic File Storage**

* Petabyte, Pay for use shared file storage
* Compatibility is supported on Linux-based instances

FSx for Lustre

* High performance computing
* Automatic encryption
* Optimized for high performance

FSx windows File Server

* Fully managed windows server
* Integrate with Microsoft AD to support windows environment for enterprise work load
* Automatic encryption at-rest and in-transit