What is EC2?

Amazon EC2 is an AWS computing web service that allows users to create and manage virtual servers, known as Instances, in the cloud.

Example:

Consider a developer using a Dell laptop and after developing a code he needs another computer to test code. So he plans to rent a laptop. The best way he found is accessing computers from the cloud. where a developer can just create an AWS account and launch an instance(which is a virtual computer) and once used he can terminate it and he will pay for how much he has used.

This will help him in saving cost and also there is no wastage of resources.

Importance of EC2:

* Amazon EC2 is important for many reasons. It provides users with on-demand, scalable computing resources that can be used to run a variety of applications.
* It provides highly-available, scalable, and secure computing capacity in the cloud, allowing users to spin up virtual servers quickly.

Some key benefits of EC2 for developers include:

* Fast provisioning of development and test environments.
* Dynamic scaling to meet changing traffic patterns.
* Pay-as-you-go pricing to optimize costs.
* Integration with developer tools and pipelines

When to use EC2?(Practical use cases of EC2)

* Hosting web applications and APIs.
* Running data processing jobs.
* Building continuous integration/continuous deployment (CI/CD) pipelines.
* Deploying microservices architecture.
* Setting up development, test, and production environments
* Running compute-intensive simulations, machine learning models, and analytics