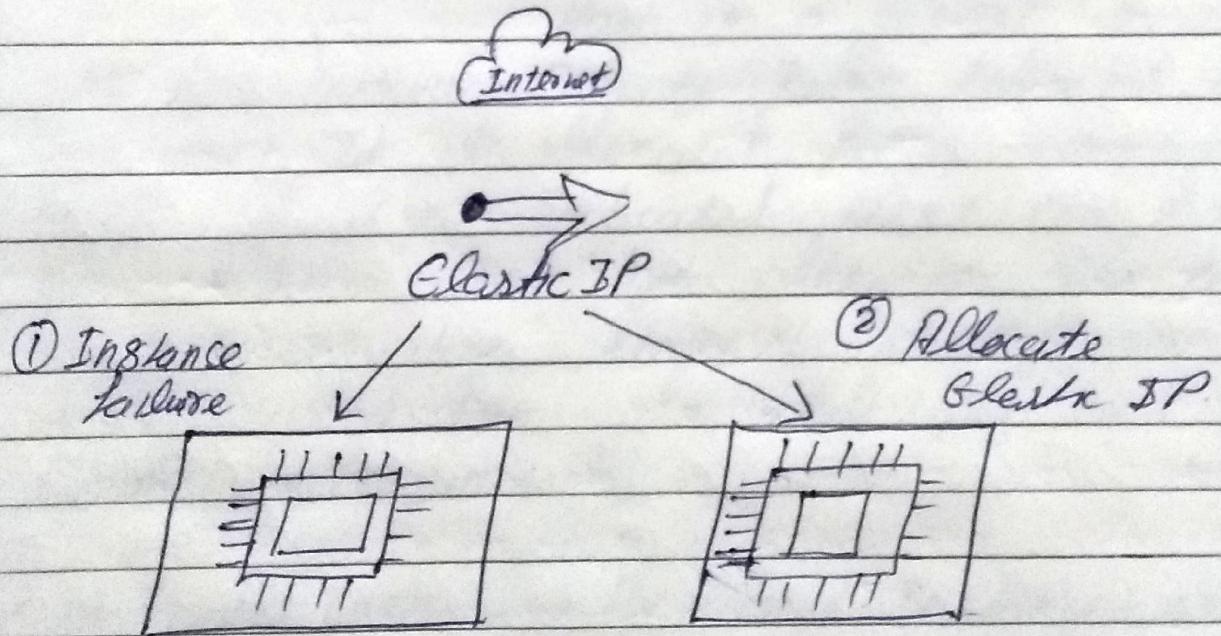


DAY 03/100Aws

Elastic IP ↗

An Elastic IP Address is a static IPv4 address designed for dynamic cloud computing. Elastic IP addresses are reachable from the Internet as they are public IPv4. In AWS, Elastic IP address is allocated to your account from public IPv4 address pool & it remains yours until you release it.



why you need an Elastic IP address.

- When you stop or start an EC2 instance, it can change its public IP. If you need to have a fixed public IP for your instance, an Elastic IP would be required.
- With an Elastic IP you can mask the failure of an instance of or software by rapidly remapping the address to another instance in your account.
- If your instance does not have public IPv4 you can associate an Elastic IP address with your instance to enable communication with the internet.

Elastic IP address basics

- An Elastic IP address is static; it does not change over time.
- To use an Elastic IP address, you first allocate one ~~one~~ to your account, and then associate it with your instance or a network interface.
- You can disassociate an Elastic IP address from a resource & then associate it with a different resource.

- A dissociated Elastic IP address remains allocated to your account until you explicitly release it. It will cost a small hourly charge for Elastic IP addresses that are not associated with running instances.
- When you associate an Elastic IP address with an instance that previously had a public address, the public DNS host name of the instance changes to match the Elastic IP address.
- An Elastic IP address is free if it is in a specific Region only, and cannot be moved to a different Region.

Elastic IP address Pricing :-

AWS impose a small hourly charge if an Elastic IP address is not associated with a running instance or if it is associated with a stopped instance or an unattached network interface.

Amazon S3 : [Amazon Simple Storage Service]

Amazon S3 is one of the most popular service of AWS. It is built to store and retrieve any amount of data from anywhere. You can use it to store and protect any amount of data for a range of use cases, such as data lakes, websites, mobile applications, backup and restore, archive, enterprise application, IoT devices, and by data analytics. Amazon S3 is designed for 99.999999999999% [119's] of durability & stores data for millions of application for companies all around the world.

Benefits of Amazon S3 :-

- Scalability, Availability and Durability →
The storage in Amazon S3 can be scaled up or down to meet the fluctuating demands. S3 is designed for 99.999999999999% [119's] data durability and your data is available on-demand & protected against failures.
- Cost-Effective: You can costs by storing your data across different cost-effective storage classes, without ~~sacrificing~~ sacrificing the performance.

• **Security and Compliance:** You can store data in S3 securely without any unauthorized access with encryption feature. Data can be encrypted both at rest & in-transit. S3 is the only object storage service that allows you to public access to all your objects at the bucket or the account level with S3 Block Public access.

• **Easy Data Management:**

S3 provides robust capabilities to manage access, cost, replication and data protection. S3 Access Point make it easy to manage data access with specific permission for your application using a shared data set. S3 Replication manages data replication within the region or to other region.

• **Easy Data Analysis:** You can use Amazon Athena to query S3 data with standard SQL expressions & Amazon Redshift Spectrum to analyze data that is stored across your AWS data warehouse and S3 resources. You can also use S3 Select to retrieve subset of object data, instead of the entire object & improve query performance.

by up to 400%. With S3 object Lambda, you can add your own code to S3 GET requests to modify and process data as it is returned to an application.

- Disaster Recovery: With S3 Cross-Region Replication you can easily recover from a region-failure outage.