AWS Services

EC2

Amazon EC2, or Elastic Compute Cloud, is a core service offered by Amazon Web Services (AWS). It provides resizable compute capacity in the cloud, allowing users to run virtual servers, known as instances, to host applications and services. EC2 instances can be easily scaled up or down based on computing needs, and users have the flexibility to choose different instance types optimized for various use cases, such as compute, memory, storage, and GPU requirements. EC2 is a key component for building scalable and flexible cloud-based solutions, offering features like Auto Scaling, Elastic Load Balancing, and integration with other AWS services for a robust cloud computing experience.

AWS Lambda

AWS Lambda is a serverless computing service on Amazon Web Services (AWS). It lets you run code without managing servers. You only pay for the time your code runs. Lambda is event-driven, meaning it responds to events like data changes or HTTP requests. It's great for building small, focused functions that can scale independently. With Lambda, you can build applications without worrying about server setup or maintenance, making development simpler and more cost-effective.

AWS Elastic Beanstalk

AWS Elastic Beanstalk is like a helping hand for developers in the cloud. It takes care of the complicated stuff, like setting up servers and handling traffic, so that developers can focus more on writing their code. It supports various programming languages, automatically scales your application when needed, and integrates smoothly with other AWS services. It's a handy tool for deploying and managing applications without getting into the nitty-gritty of infrastructure details

AWS Fargate

AWS Fargate is a technology that you can use with Amazon ECS to run containers without having to manage servers or clusters of Amazon EC2 instances. You create containers for your applications, and Fargate handles everything else – from launching and scaling to ensuring they have the resources they need. It's like having a personal assistant for your containers, so you can
enjoy the benefits of cloud computing without the operational headaches of managing servers.

AWS Auto Scaling

 AWS Auto Scaling is like having a smart assistant for your applications in the cloud. It helps automatically adjust the number of resources (like servers) your application needs, based on changes in demand. So, when your app gets busy, Auto Scaling adds more resources, and when things quiet down, it scales down to save costs. It's a handy tool for making sure your application always has the right amount of power without manual intervention

Amazon ECS

Amazon ECS, or Elastic Container Service, is like a traffic manager for your containers in the cloud. It helps you run, stop, and manage Docker containers easily. With ECS, you can package your applications into containers and let Amazon take care of the logistics—like where to run them and how to scale based on your needs. It's a way to efficiently deploy and manage containerized applications without getting bogged down in the details of server management.

AWS EKS

Amazon EKS, or Elastic Kubernetes Service, is like a super-smart organizer for your containers in the cloud. It's built on Kubernetes, a popular container orchestration tool. With EKS, you can easily deploy, manage, and scale containerized applications using Kubernetes without dealing with the complexities of setting up and maintaining the underlying infrastructure. It's a convenient way to run your containers efficiently and reliably on AWS

AWS Code Pipeline

AWS CodePipeline is a continuous delivery service you can use to model, visualize, and automate the steps required to release your software. It helps you automate the steps involved in building, testing, and deploying your code. Just like a production line for cars, CodePipeline streamlines the process of delivering your software updates. It connects different tools and services, allowing you to create a smooth and efficient workflow, ensuring that your code gets from development to deployment in a systematic and automated way.

AWS Code Build

AWS CodeBuild is like a virtual construction worker for your software projects. It automatically compiles your source code, runs tests, and produces ready-to-deploy software packages. CodeBuild is highly flexible and integrates seamlessly with other AWS services, making it easy to set up and scale your build processes. It helps developers focus on writing code, while AWS takes care of the heavy lifting of building and testing applications.

AWS Code Deploy

AWS CodeDeploy is like a deployment manager for your applications. It automates the process of releasing your code to various servers or computing environments. With CodeDeploy, you can roll out updates to EC2 instances, on-premises servers, or even serverless environments like AWS Lambda. It helps ensure a smooth and reliable deployment process, allowing you to update your applications seamlessly without downtime

AWS Code Commit

AWS CodeCommit is like a secure locker for your source code. It's a fully managed source control service that allows teams to store and collaborate on their code in the cloud. CodeCommit integrates seamlessly with other AWS services and popular development tools, providing a secure and scalable solution for version control in your software projects.

AWS Cloud Formation

AWS CloudFormation is like a blueprint for your cloud infrastructure. It enables you to define and deploy AWS resources using a template. Think of it as an 'infrastructure as code' tool that helps you create and manage resources like servers, databases, and networking in a systematic and automated way. With CloudFormation, you can easily provision and update your entire AWS infrastructure consistently

AWS CDK (Cloud Development Kit)

AWS CDK is like a developer's toolkit for building cloud infrastructure. It allows you to define cloud resources using familiar programming languages, making it easier to create and manage AWS resources using code. CDK simplifies the process of provisioning and managing infrastructure, providing a higher-level abstraction for developers who prefer working with languages like Python, TypeScript, or Java instead of traditional configuration files.

AWS CodeStar

AWS CodeStar is like a project manager for your software development process. It provides a fully managed service that helps you quickly develop, build, and deploy applications on AWS. CodeStar integrates with various AWS services, sets up development tools, and streamlines the collaboration among team members. It's designed to simplify the end-to-end process of building and deploying applications in the cloud.

AWS CodeArtifact

AWS CodeArtifact is like a secure and scalable storage facility for managing software packages. It acts as a central repository where you can store, organize, and share dependencies used in your software development projects. CodeArtifact simplifies package management, making it easy to retrieve and distribute packages while ensuring security and version control in your development workflow.

AWS Systems Manager

AWS Systems Manager is a service that provides a unified user interface and a set of tools for managing and monitoring AWS resources. It simplifies operational tasks such as configuration management, patching, and automating workflows across your AWS environment.

AWS OpsWorks

AWS OpsWorks is a configuration management service that helps you automate the setup, configuration, and deployment of applications on Amazon EC2 instances. It supports Chef and Puppet, enabling you to model and manage your applications and server configurations.

Amazon CloudWatch

Amazon CloudWatch is a monitoring and observability service that provides data and actionable insights for AWS resources. It collects and tracks metrics, monitors log files, and sets alarms, allowing you to respond to changes in your AWS environment.

Amazon VPC (Virtual Private Cloud)

Amazon VPC enables you to launch AWS resources in a logically isolated section of the AWS Cloud. It provides a virtual network where you can define your own IP address range, configure route tables, and control network traffic. VPC allows you to create a private, secure environment within the AWS cloud.

AWS Identity and Access Management (IAM)

AWS IAM is like a security guard for your AWS resources. It helps you securely control access to services and resources by managing user identities, permissions, and authentication. IAM enables you to create and enforce fine-grained access policies, ensuring that only authorized users and applications can interact with your AWS environment. It's a crucial tool for maintaining the security and integrity of your cloud infrastructure.

AWS Key Management Service (KMS)

AWS KMS is a managed service for creating and controlling cryptographic keys used to encrypt your data. It simplifies the process of key management and provides a secure way to handle encryption keys for various AWS services and applications.

AWS WAF (Web Application Firewall)

AWS WAF is a web application firewall that helps protect web applications from common web exploits. It allows you to control access to your content by defining customizable web security rules to filter and block malicious traffic.

AWS Config

AWS Config is a service that helps you assess, audit, and evaluate the configurations of your AWS resources. It provides a detailed inventory of your resources, tracks changes, and allows you to set up rules to ensure compliance with your desired configurations.

Amazon RDS (Relational Database Service)

Amazon RDS is a fully managed relational database service that simplifies database setup, operation, and scaling. It supports multiple database engines such as MySQL, PostgreSQL, Oracle, SQL Server, and MariaDB. You can even connect RDS to your existing instance

Amazon CloudFront

Amazon CloudFront is a content delivery network (CDN) service that securely delivers data, videos, applications, and APIs to users globally. It accelerates the delivery of content by caching it at edge locations close to end-users.