Compute Services	Storage Services	Container Services	Database Services	Network and Content Delivery Services	Additional Services:
EC2 (Elastic Compute Cloud)	S3 (Simple Storage Service)	ECS (Elastic Container Service)	RDS (Relational Database Service)	VPC (Virtual Private Cloud)	IAM (Identity and Access Management)
Elastic Beanstalk	EBS (Elastic Block Store)	ECR (Elastic Container Registry):	DynamoDB	CloudFront	CloudFormation
Lambda	Glacier	Fargate	Redshift	Route 53	CloudWatch
Batch	Storage Gateway	EKS (Elastic Kubernetes Service)	Neptune	Direct Connect	CloudTrail
					KMS (Key Management Service)

AWS, or Amazon Web Services, is a collection of digital infrastructure services that can be used to build and run a wide variety of applications and services. These services can be divided into several broad categories, including compute, storage, databases, and network and content delivery. In this article, we will take a detailed look at each of these categories and the individual services that make them up.

Compute Services

- **EC2 (Elastic Compute Cloud):** This is the core compute service in AWS, and allows you to launch virtual machines (VMs) in the cloud. VMs can be launched in a variety of configurations, including different operating systems, CPU and memory sizes, and network configurations.

- **Elastic Beanstalk:** This service is a higher-level service that sits on top of EC2, and allows you to deploy and run web applications with minimal setup and management.

- **Lambda:** This service allows you to run code in the cloud without the need to provision or manage servers. You can write code in a variety of languages, and AWS will automatically run and scale the code as needed.

- **Batch:** This service allows you to run batch jobs in the cloud, such as processing large data sets or running long-running computations.

Storage Services

- **S3 (Simple Storage Service):** This is the core storage service in AWS, and allows you to store and retrieve large amounts of data in the cloud. S3 is object-based storage, which means that you can store individual files or "objects" in the service, and access them via a unique URL.

- **EBS (Elastic Block Store):** This service provides block-level storage for use with EC2 instances. This can be used for applications that require a higher level of IOPS performance

- **Glacier:** This service is a low-cost storage service that is well-suited for archival data.

- **Storage Gateway:** This service allows you to store data on-premises and in the cloud, and provides a bridge between the two.

Container Services

- **ECS (Elastic Container Service):** This service allows you to run and manage Docker containers on a cluster of EC2 instances. ECS provides native support for Docker images and can be used to deploy and scale containerized applications.

- **ECR (Elastic Container Registry):** This service allows you to store and manage your own Docker images in the cloud. ECR is fully integrated with ECS and can be used to store, manage, and deploy container images.

- **Fargate:** This service allows you to run containers in the cloud without the need to manage the underlying infrastructure. You can simply specify the number of containers that you want to run and AWS will take care of the rest.

AWS also provides a Kubernetes service called **EKS (Elastic Kubernetes Service)** which makes it easy to run, scale and manage containerized applications using Kubernetes on AWS. Additionally, AWS App Runner and CodeBuild can be used for CI/CD for containerized applications.

Database Services

- **RDS (Relational Database Service):** This service allows you to run a variety of relational databases in the cloud, including MySQL, PostgreSQL, and Oracle.

- **DynamoDB:** This service is a NoSQL database service that provides a fast and flexible way to store and retrieve data.

- **Redshift:** This service is a data warehousing service that allows you to run complex queries on large amounts of data.

- **Neptune:** This service is a graph database service that makes it easy to store and query data that is connected by relationships

Network and Content Delivery Services

- **VPC (Virtual Private Cloud):** This service allows you to create a virtual network in the cloud, complete with its own IP address range, subnets, and routing tables.

- **CloudFront:** This service is a content delivery network (CDN) that allows you to distribute content to users around the world with low latency and high transfer speeds.

- **Route 53:** This service is a domain name system (DNS) service that allows you to map domain names to IP addresses, and manage your DNS records.

- **Direct Connect:** This service allows you to establish a dedicated connection between your on-premises infrastructure and the AWS cloud.

Additional Services:

- **IAM (Identity and Access Management):** This service allows you to control access to AWS resources and services. You can use IAM to create and manage users, groups, and permissions, and to enforce least privilege access policies.

- **CloudFormation:** This service allows you to use templates to provision and manage resources across multiple services in your AWS infrastructure.

- **CloudWatch:** This service allows you to monitor your AWS resources and applications in real-time, and to set alarms and take automated actions in response to changes in performance or availability.

- **CloudTrail:** This service allows you to log and monitor all AWS API calls made in your AWS account, including calls made by the AWS Management Console, SDKs, command line tools, and higher-level services like CloudFormation.

- **KMS (Key Management Service):** This service allows you to create and manage encryption keys that you can use to encrypt data stored in AWS services.

AWS also provides a wide range of other services such as Elasticsearch, SQS, SNS, SES, AppSync, AppMesh, ElasticTranscoder, Elasticsearch Service, Elasticsearch for Kubernetes, QuickSight, Pinpoint, Personalize, SageMaker, Comprehend, Transcribe, Translate, and many more. Each of these services can be used to build and run various types of applications and services, and can be combined and integrated with other services to create a complete solution.

In conclusion, AWS provides a vast array of services that can be used to build and run a wide variety of applications and services. By understanding the different categories of services and the individual services that make them up, you can choose the right services for your specific needs and build a solution that is tailored to your requirements.