Amazon Web Services (early 2000s)

EC2 compute, S3 storage, RDS database services

Amazon EC2, Amazon S3, and Amazon RDS form the three core building blocks of cloud infrastructure on Amazon Web Services (AWS). Together, they handle computing power, file storage, and structured database management for web applications and enterprise workloads.

Click here for their timeline on Wikipedia

Core Service Breakdown

- **Amazon EC2 (Elastic Compute Cloud) handles compute.** It provides resizable virtual servers in the cloud where you run application code, host backend APIs, and process workloads. You can pick from specialized EC2 instance types optimized for general tasks, heavy computation, large memory, or graphics acceleration.
- **Amazon S3 (Simple Storage Service) handles object storage.** It stores and retrieves unlimited amounts of unstructured files—such as images, videos, backups, logs, and static website assets—inside scalable "buckets". You pay only per gigabyte stored, and Amazon S3 offers 99.999999999% (11 nines) data durability along with low-cost archival tiers like S3 Glacier.
- **Amazon RDS (Relational Database Service) handles managed databases.** Rather than installing and maintaining database software manually on a server, RDS automates backups, software patching, scaling, and hardware failover. It supports popular SQL engines including PostgreSQL, MySQL, MariaDB, Oracle, Microsoft SQL Server, and Amazon Aurora.

How They Work Together

Service	Role	Analogy	Typical Use Cases
EC2	Virtual server	The computer running your software	Hosting web servers, running backend APIs, batch processing
S3	Object storage	A warehouse shelf for files	User photo/video uploads, static sites, data lakes, backups
RDS	Relational database	An organized filing cabinet	Customer profiles, order histories, financial transactions

In a standard cloud architecture, your application code runs on **EC2** instances. When users upload media files or generate logs, the application sends those files straight to **S3** so your server disks do not fill up. When the application needs to query or update structured records like user accounts or orders, it reads from and writes to **RDS**.

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