CLOUD COMPUTING

Cloud computing is the on-demand availability of computing resources, such as storage, infrastructure, and software, as services over the internet, allowing users to access and use these resources without managing physical hardware themselves

Cloud computing is important because it offers scalable, cost-effective, and easily accessible computing resources that support modern digital services and innovation.

Key Technologies

Virtualization, containers (Docker, Kubernetes), serverless computing, and AI/automation tools.

Major Platforms

AWS (Amazon Web Services), Microsoft Azure, Google Cloud Platform (GCP).

Define IaaS, SaaS, PaaS

IaaS –Provides virtual computing resources like servers and storage over the internet.
PaaS –Provides a platform to build and deploy applications without managing infrastructure.
SaaS –Delivers ready-to-use software applications over the internet.

Real-World Use Cases

Indian Example: Airtel Cloud
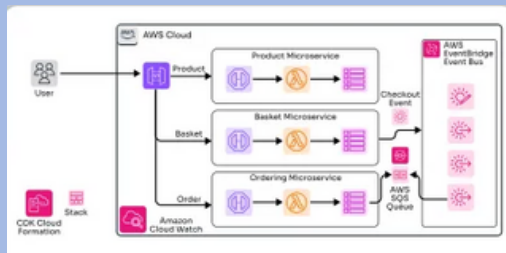Global Example: Amazon Web Services (AWS)

Major Cloud Job Roles

- Cloud Engineer – Builds and manages cloud systems
- Cloud Architect – Designs cloud solutions
- DevOps Engineer – Automates deployment and operations
- Cloud Security Analyst – Secures cloud infrastructure

Pathway & Skills

Basics (Linux + Networking) → Cloud Platform (AWS/Azure/GCP) → DevOps Tools (Git, Docker, CI/CD) → Advanced (Security, Automation, Architecture)

References

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Insights

Cloud computing is shaping the future of technology and jobs. Learning it gives me strong career opportunities and keeps me industry-ready.

Submitted By: Rashi Mangal
B.Tech CSE (AI/ML) Section B