

# PAVISION INNOVATIONS

AUTHORIZED BY



# CLOUD architecture

Bringing Cognitive Intelligence to the Cloud







Cloud architecture is the blueprint of how various technology components combine to build a cloud environment. It's about how servers, storage, networking, and virtualization software are interconnected to create a platform where applications can run. Think of it as the master plan for a cloud computing environment.

At its core, cloud architecture is designed to deliver services with high scalability, availability, and cost-efficiency. It allows businesses to use and pay for only the resources they need, when they need them.

- **Frontend Platform:** This is the client-side of the cloud architecture. It includes the user interfaces and applications that users interact with to access cloud services. This can be a web browser, a mobile app, or a desktop client.
- **Backend Platform:** This is the core of the cloud infrastructure, owned and managed by the cloud service provider. It comprises a vast network of servers, data storage systems, and virtualization software. The backend is responsible for providing the computing resources, storage, and services that power the cloud.
- **Cloud Delivery Model:** This defines how cloud services are provided to users. The primary models are Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS).
- **Network:** The network is the crucial link that connects the frontend and backend. It enables data transfer between the user's device and the cloud provider's data centers, typically over the internet.



# About Pavision Innovation

At Pavision Innovations, we are more than just a training platform – we are a community of innovators in education. Our cybersecurity program equips you with the knowledge and skills to protect critical systems and networks in today's ever-evolving cyber landscape.

## why study cloud architecture

Studying cloud architecture is essential in today's digital world because it forms the backbone of how modern applications and services are developed, deployed, and managed. With most organizations moving their infrastructure to the cloud, there is a growing demand for professionals who understand how to design scalable, secure, and cost-effective cloud solutions. Cloud architecture empowers businesses with flexibility, global reach, and the ability to innovate quickly by using technologies like microservices, containers, and serverless computing. It also plays a critical role in ensuring data security, regulatory compliance, and disaster recovery. For individuals, learning cloud architecture opens up high-paying career opportunities in roles such as Cloud Architect, DevOps Engineer, and Solutions Architect. Furthermore, it lays a strong foundation for advanced fields like artificial intelligence, big data, and Internet of Things (IoT), making it a future-proof skill for both tech professionals and entrepreneurs.

## Why Pavision Innovations ?

- Top-Notch Training: Learn from industry experts.
- Flexible Learning Modes: Self-paced, live, and blended. .
- Career Support: Job guarantee programs, resume building, and interview preparation.
- Global Recognition: Courses aligned with industry certification standards





### **Module 1: Introduction to Cloud Computing**

- What is Cloud Computing?
- Benefits and types of cloud deployment models (Public, Private, Hybrid)
- Cloud service models (IaaS, PaaS, SaaS)
- Overview of top cloud providers: AWS, Azure, GCP

### **Module 2: Core Cloud Services**

- Compute (Virtual Machines, Auto-scaling, Containers)
- Storage (Object, Block, File Storage)
- Databases (Relational, NoSQL, Managed DBs)
- Networking (VPC, Load Balancers, CDN, DNS)

### **Module 3: Designing Cloud Architectures**

- Principles of cloud architecture
- Designing for scalability, availability, performance, and cost optimization
- Multi-tier and microservices architectures
- Serverless architecture and event-driven design

### **Module 4: Cloud Security and Compliance**

- Identity and Access Management (IAM)
- Encryption at rest and in transit
- Network security: firewalls, security groups, VPNs
- Compliance standards (GDPR, HIPAA, ISO)

### **Module 5: DevOps and Automation in the Cloud**

- CI/CD pipelines in cloud
- Infrastructure as Code (Terraform, AWS CloudFormation, Azure ARM)
- Monitoring, logging, and alerting tools
- Container orchestration (Kubernetes basics)



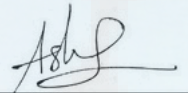
# INTERNSHIP CERTIFICATE



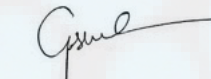
THIS CERTIFICATE IS PRESENTED TO :

*K.H.N. VAMSJ*

has successfully completed Artificial Intelligence program at Pavision  
Innovations in the month of 3 September 2025 to 3 November 2025  
CERTIFICATE ID: 6565-5801-2130

  
Academic Head



  
Mentor

# CERTIFICATE OF COURSE COMPLETION

THIS CERTIFICATE IS PROUDLY PRESENTED TO

*K.H.N. VAMSJ*

has successfully completed Artificial Intelligence course at Pavision Innovations  
in the month of 3 JUNE 2025 to 3 AUGUST 2025 and has proven his/her  
competency with utmost dedication and promise  
CERTIFICATE ID: 6565-5801-2130

  
Academic Head



  
Mentor



# simple and practical cloud architecture projects

## 1. Static Website Hosting on Cloud

- Goal: Host a static website using cloud storage.
- Tools: AWS S3 / Azure Blob / GCP Cloud Storage + CDN (like CloudFront).
- Skills Covered: Object storage, domain mapping, permissions, static hosting.

## 2. Deploy a Web App with Auto-Scaling

- Goal: Deploy a simple app (like a blog or portfolio) that scales based on traffic.
- Tools: AWS EC2 + Load Balancer + Auto Scaling Group / Azure App Services.
- Skills Covered: Compute, load balancing, auto-scaling, monitoring.

## 3. Serverless Contact Form

- Goal: Create a contact form where submissions are processed without a server.
- Tools: AWS Lambda + API Gateway + DynamoDB or SES.
- Skills Covered: Serverless architecture, API design, database or email integration.

## 4. Build a Cloud Resume Website

- Goal: Create a personal resume website hosted on the cloud with CI/CD.
- Tools: GitHub + AWS Amplify / Azure Static Web Apps / Firebase Hosting.
- Skills Covered: CI/CD, static deployment, version control integration.

# Tools, Languages, Platforms





# Thank You

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