1-Day Workshop on PaaS (Platform as a Service) with Case Study, suitable for students, professionals, or corporate teams.

Workshop Theme:

"Building, Deploying, and Scaling Applications Using Modern PaaS Platforms"

Duration: 1 Full Day (6–7 hours)

Learning Objectives

By the end of the workshop, participants will be able to:

- Understand cloud service models: IaaS vs PaaS vs SaaS
- Explain architecture, benefits, and use cases of PaaS
- Deploy a sample application using a PaaS platform
- Analyse a real-life PaaS case study from industry
- Understand pricing, scaling, DevOps integration, and security in PaaS

Target Audience

- IT professionals
- Developers
- Cloud learners
- Engineering / MBA students
- Startups building scalable apps

Workshop Agenda

09:00 – 09:45 | Session 1: Introduction to Cloud & PaaS

- Cloud Computing Overview
- Service Models (IaaS, PaaS, SaaS)
- Where PaaS fits in the cloud ecosystem
- Why choose PaaS?
    - Faster development
    - Auto scaling
    - No server management
    - Integration with DevOps & CI/CD

09:45 – 10:45 | Session 2: PaaS Architecture & Components

- Core elements of PaaS:
    - Runtime environment
    - Application hosting
    - Databases & storage
    - API gateways
    - DevOps tools
- Popular PaaS Platforms:
    - Google App Engine
    - AWS Elastic Beanstalk
    - Microsoft Azure App Service
    - Heroku
    - Red Hat OpenShift
- Comparison chart

10:45 – 11:00 | Break

11:00 – 12:00 | Session 3: Hands-On Lab: Deploying an App on PaaS

Demo Option 1: Deploy a Python/Node.js App on Heroku

- Install Heroku CLI
- Push code to Git
- Deploy the app using:
- git push heroku main
- Add-ons (database, logging)
- App monitoring & scaling

Demo Option 2 (Institution/Company Choice):
Deploy on Azure App Service or AWS Elastic Beanstalk with sample code.

12:00 – 01:00 | Lunch Break

01:00 – 02:00 | Session 4: Industry Case Study (Choose One)

Case Study 1: Netflix using AWS Elastic Beanstalk

- Background: High traffic demand
- Why PaaS?
- Autoscaling & deployment automation
- Reduced operational overhead
- Outcome: Better streaming performance and high availability

Case Study 2: Spotify using Google App Engine

- Rapid deployment & microservices
- Managed infrastructure
- Scalability during global launches

Case Study 3: Startup Example – Food Delivery App on Azure PaaS

- Problem: Need fast deployment & Pay-as-you-go
- PaaS solution used
- Architecture diagram
- Cost optimization

02:00 – 03:00 | Session 5: PaaS Security, Monitoring & DevOps

- Identity & Access Management
- Secure deployment pipelines
- Continuous Integration / Continuous Deployment (CI/CD)
- Logging & monitoring tools
- Risk: Vendor lock-in
- How to design a multi-cloud PaaS strategy

03:00 – 03:30 | Session 6: PaaS Pricing

- Pricing models (Compute hours, storage, add-ons)
- Estimating cost using cloud calculators
- Cost optimisation strategies:

- o   Auto-sleep inactive apps
- o   Serverless + PaaS hybrid
- o   Reserved plans

03:30 – 04:00 | Final Session: Quiz, Feedback & Certification

- 10–15 questions
- Discussion
- Workshop certificate distribution

Deliverables for Participants

- PDF Slides
- Hands-on code sample
- Cloud deployment tutorial
- Case study document
- Certification

Instructor: Mr Suresh Tripathi is a founder of Geosun Pty Ltd an Australian company registered in year 2000 to provide AI corporate training, data center solutions and data pipeline end-to-end cloud platform. He has nearly 25+ years of work experience in digital data analytics integrated with AI and tech platforms. His education qualifications include master degree in Statistics from India, master degree in Geostatistics from Australia and master degree in Geoscience from Australia. He completed his AI certificate courses from Stanford Business School from California and High Impact Leadership from Cambridge University, UK. He has worked in Australia and US focusing his career on data strategy, tech platforms, and developing in-house training. He has worked with range of industries in Australia and US that include Deloitte, Flybuys, Ambulance Victoria, CFA (Emergencies Services), Avexa, Covance, Avance Clinical (Pharmaceuticals), Intelligen, Commonwealth Bank, Hackett Group (US), Health and Safety Sphera Solutions(US), Vic Government (Environment, water and energy), Waste Management (US), Outfront Media (US), Adani Mining (Australia) and Fura Gems Industries (Dubai).

Fee: Rs 25,000 per participant plus GST payable to GeosunAI Tech Cloud Pvt Ltd. RTGS/Cheque/ PhonePe via below link form.

Bank: Punjab National Bank

Account Name: NB, GeosunAI Tech Cloud Pvt Ltd

Account No.: 1228102100001295