



Learn, Create & Succeed with us

DEVOPS AND CLOUD COMPUTING

COURSE



INTRODUCING PW SKILLS

The PW Skill Up program offers comprehensive upskilling opportunities for students seeking cloud computing and DevOps platforms. Through engaging coursework and hands-on training modules, students will gain proficiency in key concepts, tools, and best practices essential for success in the rapidly evolving fields of cloud computing and DevOps. With expert guidance and practical experience, the PW Skill Up program empowers students to become proficient cloud computing and DevOps professionals, ready to make an impact in the digital landscape.

PW Skills has empowered **over 3.5 lakh learners till date.**

COURSE DESCRIPTION

Discover the transformative potential of DevOps with our advanced DevOps and Cloud Computing Course! Dive deep into the world of continuous integration, deployment, and delivery as you master essential tools like Docker, Kubernetes, and Jenkins. You'll develop expertise in infrastructure as code using Terraform, configuration management with Ansible, and monitoring with Prometheus and Grafana.

The journey starts here!.....



COURSE DESCRIPTION

DevOps, Linux Basics, OS Fundamentals and System Resource monitoring

- Understanding DevOps
- Software Development Life Cycle (SDLC)
- Processes and Threads
- Memory Management
- File Systems
- Network Basics
- Networking Tools in Linux
- Linux Firewall Basics
- Monitoring Network Traffic
- Monitoring CPU and Memory Usage
- Understanding system load and performance bottlenecks
- Optimizing CPU and Memory Usage
- Determine Optimal Resource Allocation
- Linux Fundamentals

Source Code Management

- Introduction to Git

Scripting

- Basic Scripting
- Advanced Scripting

Python Programming

- Introduction to Python
- Python in practice
- Advanced Scripting

CI/CD Pipelines

- Continuous Integration (CI)
- Jenkins
- Testing Frameworks and Practices
- Integration testing
- Performance Testing
- Security Testing
- Continuous Deployment (CD)

Configuration Management

- Introduction to Configuration Management
- Why Ansible?
- Ansible Basics
- Ansible Inventory
- Ansible Modules
- Writing Ansible Playbooks
- Handlers and Notifications
- Roles and Reusability in Playbooks
- Templates with Jinja2
- Ansible Vault
- Error Handling and Debugging
- Parallelism and Ansible Performance
- Ansible and Cloud Provisioning
- Monitoring
- Orchestrating Deployments with Ansible and integrating with CI/CD pipelines

Containerization and Container Orchestration

- Introduction to Docker & Its Architecture
- Working with Docker
- Docker Compose
- Introduction to Kubernetes
- Kubernetes Objects and Concepts
- Kubernetes Storage
- Kubernetes Controllers and Scheduling
- Container Security Best Practices
- Scaling and Managing Kubernetes

Infrastructure As a Code

- IaC Introduction
- Introduction to Terraform
- Getting Started with Terraform
- Terraform Configuration Files
- Managing Terraform State
- Terraform Modules
- Terraform Provisioners
- Terraform Workspaces
- Terraform Remote State and State Locking
- Terraform in CI/CD Pipelines
- Cost Management and Estimation
- Terraform and AWS
- Monitoring Cloud Infrastructure

Monitoring and Logging

- Application Monitoring
- Infrastructure Monitoring
- Setting up Monitoring for Applications
- Monitoring Dashboards and Alerts
- Introduction to Logging
- Key Log Management Concepts
- Introduction to the ELK Stack
- Application-Level Logging
- Log Levels
- Log Parsing and Analyzing
- Centralized Logging for Microservices
- Securing Logs
- Monitoring Logs for Anomalies
- Monitoring in CI/CD Pipelines

Cloud Computing

- Introduction to cloud computing & AWS
- How does application work in production?

AWS

- AWS Fundamentals

AWS Security and Identity Management

- AWS Identity and Access Management (IAM)
- AWS Security Services

AWS Compute Services

- Amazon Elastic Compute Cloud (EC2)
- AWS Lambda

AWS Storage Services

- Amazon Simple Storage Service (S3)
- Amazon Elastic Block Store (EBS) and Amazon Elastic File System (EFS)

AWS Networking & Load balancing Services

- Amazon Virtual Private Cloud (VPC)
- AWS Load Balancing Services
- Amazon Route 53

AWS Database Services

- Amazon Relational Database Service (RDS)
- Amazon DynamoDB

AWS Monitoring and Logging

- Amazon CloudWatch
- AWS CloudTrail

AWS Deployment and Management

- AWS CodeDeploy
- AWS CloudFormation

AWS Messaging and Notification Services

- Amazon Simple Queue Service (SQS)
- Amazon Simple Notification Service (SNS)
- Amazon Simple Email Service (SES)

AWS Services and Containers

- AWS Serverless Application Model (SAM)
- Amazon Elastic Container Service (ECS) and Elastic Kubernetes Service (EKS)

AWS Certification Preparation

- Different types of certifications for DevOps

Advanced DevOps Topics

- Site Reliability Engineering (SRE)
- Chaos Engineering

DevOps Career and Professional Development

- Building a DevOps Portfolio
- Capstone Project
- Certification Preparation
- Career Options

TOOLS TO COVER



EC2



jupyter



Linux



ANSIBLE



docker



Jenkins



Grafana



Prometheus



kubernetes



git



GitHub

CERTIFICATION

Receive a certificate of completion upon successfully completing this course!



DevOps And Cloud Computing

This is to certify that Mr./Mrs./Ms. {Student's Name} , has successfully completed the
DevOps And Cloud Computing

DATE: XXXX

Certificate No: XXXX
<https://learn.pwskills.com/certificate/xxxx>


Mr. Alakh Pandey
(Founder)

SUPPORT SYSTEMS



ELIGIBILITY & ADMISSION

- Anyone with Basic programming understanding.
- College students who have recently started or IT professionals are encouraged to apply.
- This program is suitable for fresh graduates and working IT professionals with some relevant work experience and programming understanding.



Program Fee

INR 20,000 (including GST)



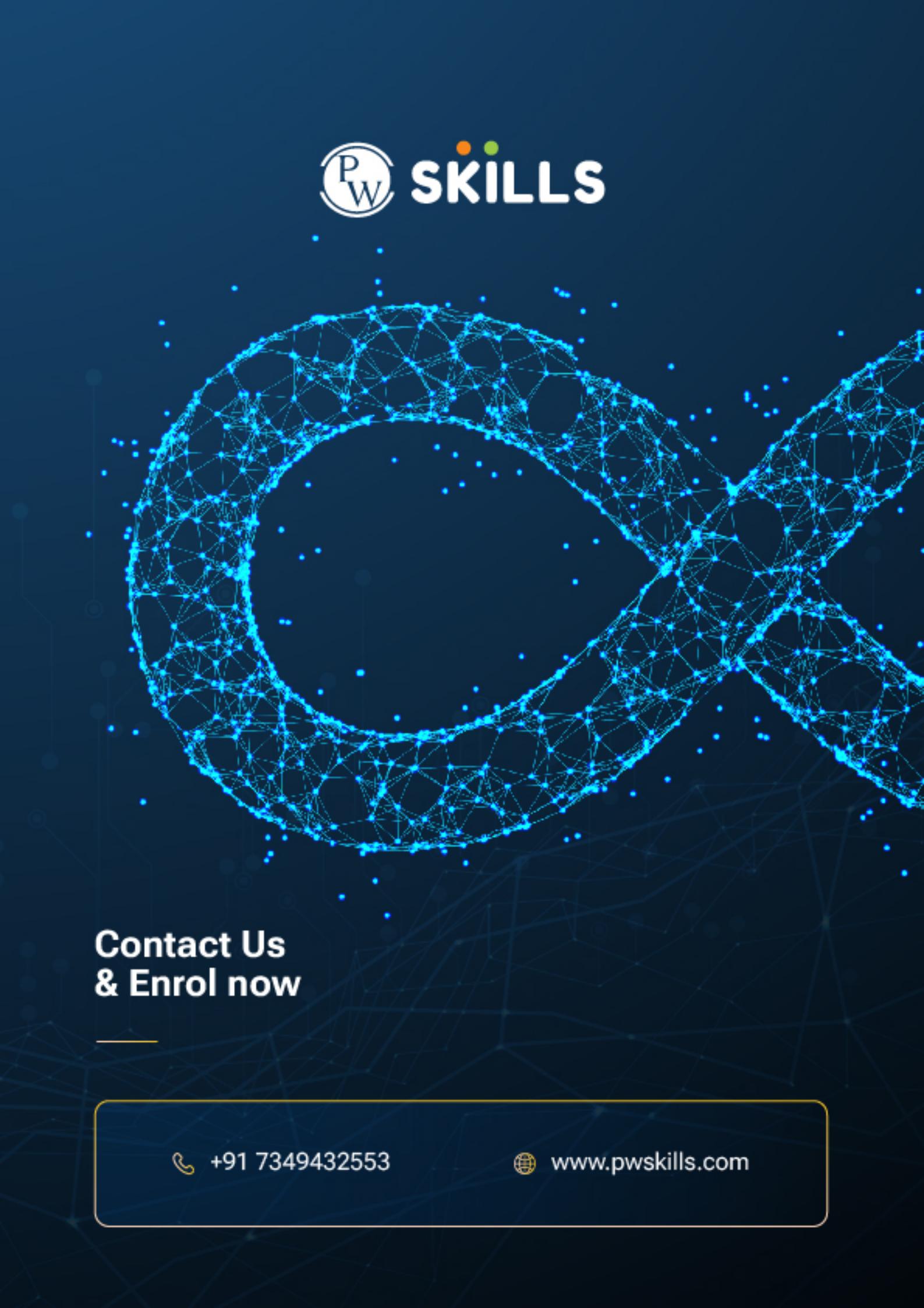
Program Duration

6 months



Delivery Format

Blended(Live+Recorded)

The background of the entire page is a dark blue gradient with a subtle, glowing network of interconnected lines and dots, resembling a DNA helix or a complex digital grid.

**Contact Us
& Enrol now**

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