
Docker Training Syllabus & Course Brochure

Provider: The School of IT International Pty Ltd

Banking Details:

- **Bank:** FNB
- **Account Type:** Gold Business Account
- **Account Number:** 62819004102
- **Branch Code:** 200512
- **Branch Name:** Somerset West
- **Tel:** 082 696 7749

1. Introduction to Docker

Duration: 10 hours

Level: Beginner

Fee: R12,900

Course Objectives:

- Understand containers and how Docker works
- Learn to install and configure Docker
- Run, manage and troubleshoot basic containers

Syllabus Overview:

- What is Docker? History & Benefits
 - Installing Docker on Windows/macOS/Linux
 - Docker CLI Basics
 - Docker Images vs Containers
 - Docker Hub & Repositories
 - Creating and Running Containers
 - Docker Volumes and Persistent Data
 - Basic Dockerfile Introduction
 - Simple Networking with Docker
 - Hands-on Lab
-

2. DevOps with Docker

Duration: 20 hours

Level: Intermediate

Fee: R14,900

Course Objectives:

- Integrate Docker into DevOps pipelines
- Automate builds, tests and deployments
- Master Docker Compose

Syllabus Overview:

- DevOps Workflow Overview
 - Docker in CI/CD Pipelines
 - Using Jenkins with Docker
 - Docker Compose Deep Dive
 - Multi-container Applications
 - Testing and Debugging Containers
 - Building Custom Dockerfiles
 - Managing Container Logs
 - Introduction to Docker Swarm
 - GitOps Principles + Lab Work
-

3. Advanced Docker

Duration: 20 hours

Level: Advanced

Fee: R16,900

Course Objectives:

- Dive deeper into container orchestration and optimization
- Secure, monitor and scale Docker in production

Syllabus Overview:

- Advanced Docker Networking
- Advanced Dockerfile Techniques
- Docker Image Caching & Optimization
- Secrets Management in Docker
- Container Security Best Practices
- Image Scanning Tools (e.g., Trivy)
- Docker Logging + Log Aggregation
- Monitoring Containers with Prometheus/Grafana

- Introduction to Container Orchestration
 - Debugging Containers in Production
-

4. Docker & Kubernetes Integration

Duration: 20 hours

Level: Intermediate–Advanced

Fee: R18,900

Course Objectives:

- Seamlessly integrate Docker containers into Kubernetes clusters
- Understand real-world deployment scenarios

Syllabus Overview:

- Kubernetes Architecture Overview
 - Docker vs containerd
 - Creating Docker Images for Kubernetes
 - Deploying Docker Containers in Kubernetes Pods
 - Using Kubernetes Deployments, Services, and ConfigMaps
 - Helm Basics for Packaging
 - Kubernetes Secrets & Config Management
 - Rolling Updates & Rollbacks
 - Debugging in Kubernetes
 - Lab: Docker to Kubernetes Pipeline
-

5. Kubernetes from Basic to Advanced

Duration: 40 hours

Level: Comprehensive

Fee: R28,800

Course Objectives:

- Gain complete end-to-end Kubernetes skills
- Prepare for Kubernetes certification and enterprise-level usage

Syllabus Overview:

Module 1: Foundations (Beginner)

- Kubernetes Overview
- kubectl & Minikube

- Pods, Labels, Selectors
- ReplicaSets & Deployments
- Services and Networking
- Namespaces & RBAC

Module 2: Intermediate Concepts

- ConfigMaps & Secrets
- Volumes & Persistent Storage
- Health Checks
- Helm Charts
- Rolling Updates, Scaling

Module 3: Advanced Topics

- Cluster Federation
 - Ingress Controllers
 - Monitoring with Prometheus & Grafana
 - Securing Kubernetes
 - CI/CD with Kubernetes
 - Real-world Architecture Labs
-