

Azure DevOps Master's Program - 45 Days Schedule		
Day	Main Topic	Detailed Subtopics/Activities
Week 1	Introduction to DevOps	- Development methodologies: Waterfall, Agile - Principles of DevOps - DevOps vs. traditional IT
	Version Control Systems	- Git basics: init, clone, commit, branches - Git advanced: rebasing, cherry-picking, stashing
		- GitHub: repo creation, branching strategy - GitHub collaboration: Pull requests, issues, actions
Week 2	Azure DevOps Services	- Azure Boards: Work items, backlogs, sprints - Azure Boards: Kanban boards, dashboards
		- Azure Repos: Git integration, branch policies - Azure Repos: Code reviews, pull requests
		- Azure Pipelines: CI/CD concepts, agents - Azure Pipelines: Deployment strategies, approvals
Week 3 - 5		- Azure Test Plans: Test case management - Azure Artifacts: Package management, feeds
	Azure Administration	- ARM: Templates, deployments - Azure VMs: Creation, management, scaling
		- Azure Networking: VNET, subnet, NSG, peering - Azure Storage: Blob, queue, table, file
Week 6		- Azure AD: Users, groups, RBAC - Monitoring: Azure Monitor, Log Analytics, alerts
	Infrastructure as Code (Terraform)	- Terraform basics: Configuration, providers - Terraform state: Local vs. remote, state locking
		- Terraform with Azure: Resource creation, modules

Week 7	Containerization: Docker	- Docker basics: Images, containers, volumes - Dockerfile: Writing, building, optimization
		- Docker Compose: Multi-container apps, networks
	Containerization: Kubernetes	- Kubernetes basics: Pods, services, replica sets - Kubernetes deployments: Rolling updates, strategy
Week 8		- Kubernetes in Azure (AKS): Cluster creation, node pools - State in Kubernetes: ConfigMaps, secrets, PV, PVC
	Scripting for DevOps: Python	- Python basics: Syntax, data structures, loops, conditions - Python for automation: OS, requests libraries
	Scripting for DevOps: PowerShell	- PowerShell basics: Cmdlets, providers, variables - Azure with PowerShell: AzureRM module, automation
Week 9	Scripting for DevOps: Shell	- Shell scripting: Variables, loops, conditions - Automation with Shell: Cron jobs, task scheduling
	Monitoring & Observability Tools	- Monitoring vs. Observability - Azure Monitor, Application Insights: Setup, dashboards
		- Open Source: Prometheus (metrics), Grafana (visualization) - ELK Stack: Elasticsearch (storage), Logstash (ingestion), Kibana (visualization)