DevOps Engineer

Build CI/CD pipelines, source control, IaC and monitoring with Azure DevOps and GitHub.

DURATION	FORMAT	LEVEL	LABS
45 hours	Onsite, online or hybrid	Intermediate	Cloud sandbox included

About this programme

A hands-on DevOps programme built around Azure DevOps and GitHub: planning and collaboration, Git branching strategies, build and release pipelines, security and compliance, dependency management, infrastructure as code and instrumentation, following Microsoft's AZ-400 skills areas.

Who it is for: Developers, build and release engineers, and operations teams

What your team will be able to do

- Plan work and collaborate with Azure Boards and GitHub
- Design Git branching strategies, branch policies and pull request workflows
- Build CI/CD pipelines with Azure Pipelines and GitHub Actions, with release gates
- Integrate security scanning and secrets management with Azure Key Vault
- Provision infrastructure with ARM, Bicep and Azure CLI, and instrument applications

Before you start

- Git and a scripting language such as Bash or Python
- Experience on a software or operations team

Course outline

1. Processes and communication

- Planning a DevOps implementation
- Agile planning and lean project management with Azure Boards
- Collaboration with Azure DevOps and GitHub

2. Source control

- Git fundamentals with Azure Repos and GitHub
- Branching strategies
- Branch policies and pull requests

3. Build and release pipelines

- Continuous integration with Azure Pipelines and GitHub Actions
- Automating builds, tests and deployments
- Release strategies and release gates
- Continuous delivery

4. Security, compliance and dependencies

- Integrating security into the DevOps lifecycle
- Authentication and authorisation with Microsoft Entra ID
- Managing secrets with Azure Key Vault and automating security scanning
- Dependency management and packages with Azure Artifacts
- Designing governance enforcement

5. Infrastructure as code and instrumentation

- IaC with ARM templates, Bicep and Azure CLI
- Designing IaC for provisioning and configuration
- Logging and telemetry with Azure Monitor, Log Analytics and Application Insights
- Alerts and dashboards

Sample schedule

6 days onsite, or 12 half-day sessions online. We fit days and session lengths to your team's calendar.

Day 1	8 h	Processes and communication; Source control
Day 2	8 h	Source control (continued); Build and release pipelines
Day 3	8 h	Build and release pipelines (continued)
Day 4	8 h	Security, compliance and dependencies
Day 5	8 h	Security, compliance and dependencies (continued); Infrastructure as code and instrumentation
Day 6	5 h	Infrastructure as code and instrumentation (continued)

Assessment and certification

How learning is checked

- A short knowledge check on day one and again at the end, so you can see each person's progress
- Graded hands-on labs in every module, reviewed by the trainer
- A final exercise that applies the programme to a problem like your team's own

Certificate and exams

- Participants who complete the programme receive a Cognitive Networks AI certificate of completion.

Formats and cohort size

- Onsite: At your office or a venue you choose, in full days.
- Online, live: Instructor-led over video, usually in half-day sessions so people can keep up with work.
- Hybrid: Some days in a room together, the rest online. Useful when a team works across cities.

Cohort size: 15 to 25 people per trainer. Larger teams run as parallel cohorts on the same outline, so everyone learns the same thing.

Pricing: We quote per cohort, based on duration, format and number of cohorts. There is no per-seat price list: tell us your team and we send a proposal within one business day.

Bring this programme to your team

Request a proposal at cognitivenetworks.ai/contact?programme=devops-engineer

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