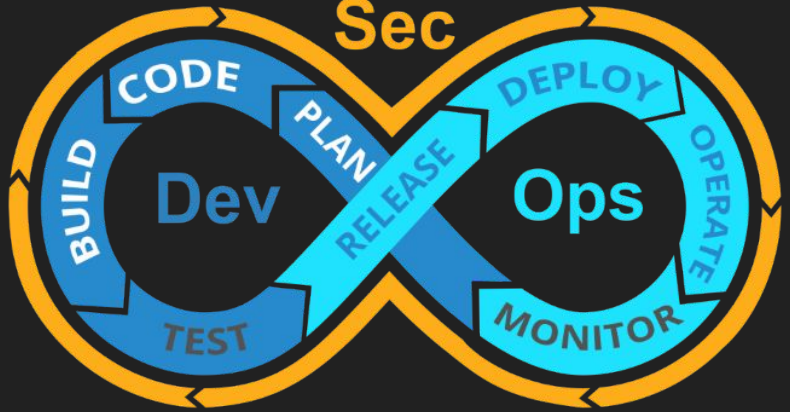


Become A DevSecOps Engineer

Created with ❤ by Ayoub NAJIM

What is DevSecOps ?

DevSecOps evolved to address the need to build in security continuously across the SDLC so that DevOps teams could deliver secure applications with speed and quality.

DevSecOps spans the entire SDLC, from planning and design to coding, building, testing, and release, with real-time continuous feedback loops and insights.

DevSecOps Engineers Roles & Responsibilities

- Process monitoring
- Incident management
- Writing risk analyzes
- Automation of security controls
- Control and management of security operations
- Testing, selection and implementation of technologies, tools and working method

DevSecOps Engineer Skills

- Linux & Shell Scripting
- Any back-end Programming Language to write automation scripts
- Networking & Web Protocols
- Container & Container Orchestration
- CI/CD Tools
- SAST | DAST Testing
- Cloud Services, Infrastructure as Code & Configuration Management
- Monitoring Tools & Services

Linux & Shell Scripting

DevSecOps Engineer should have a good knowledge of Linux OS because most application (or any kind of) servers run are Linux OS.

Basic Linux commands are necessary before jumping into shell scripting. Once basic Linux commands are learned, learn shell scripting for common use cases, and try to automate regular things with shell scripts.

Courses :

- *FreeCodeCamp: https://www.youtube.com/watch?v=BFMyUgF6I8Y*
- *Edureka: https://www.youtube.com/watch?v=Wgi-OfbP2Gw*

Any Popular back-end Programming Language

Some languages that are most popular for backend programming now and at least for the next few years are : Python, Go, JAVA, JavaScript.

Most of Cloud service providers SDK's support the above programming languages.

Courses :

- *Python Basics for Beginners : https://youtu.be/rfscVS0vtbw*
- *CodeCamp : https://www.youtube.com/watch?v=YS4e4q9oBaU*

Networking & Web Protocols

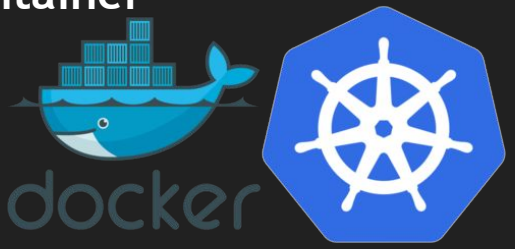
As a DevSecOps engineer, working with networking, and networking and/or web protocols is pretty common.

Courses :

- *Computer Networking : https://youtu.be/qiQR5rTSshw*

Container & Container Orchestration

Docker is very popular for containerization and to manage the complexity of containerization applications, container orchestration is there to rescue. A popular container orchestration tool is Kubernetes.



Courses :

- *Docker : https://www.youtube.com/watch?v=fqMOX6JJhGo*
- *Kubernetes : https://www.youtube.com/watch?v=X48VuDVv0do*

CI/CD Tools

One of the most common day-to-day jobs of a DevSecOps engineer is to implement and manage CI/CD Pipelines for faster application testing, build and release quality for faster feature release, and more. Popular tools are:

Jenkins, GitLab CI, AWS CodePipeline + AWS CodeBuild, Azure DevOps…

Courses :

- *Jenkins : https://youtu.be/FX322RVNGj4*
- *GitLab CI : https://youtu.be/8aV5AxJrHDg*

Jenkins

SAST | DAST Testing

Static application security testing (SAST) software inspects and analyzes an application's code to discover security vulnerabilities without actually executing code.

Dynamic application security testing (DAST) is a process of testing an application or software product in an operating state.

Courses :

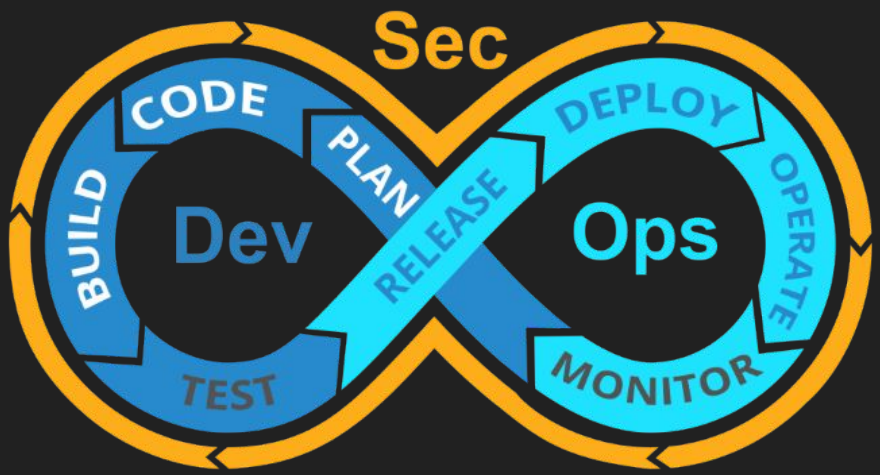
- *SonarQube : https://youtu.be/31igoWxauEQ*
- *Burp Suite : https://portswigger.net/burp/documentation/desktop/tutorials*

Monitoring Tool & Services

After deploying applications in the cloud, the applications, and infrastructure/servers needed to be monitored 24 * 7, for this, popular tools and services are: Grafana, Nagios, Zabbix, Datadog, New Relic, App Dynamics…

Courses :

- *Nagios : https://youtu.be/s9xCXZNVpac*
- *Prometheus & Grafana: https://www.youtube.com/watch?v=7gW5pSM6dlU*



Good Luck On Your DevSecOps Journey !!