DevSecOps

Lab

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DevSecOps

- PART 1 – DevOps foundations
- PART 2 – DevSecOps to secure software
- PART 3 – Securing DevSecOps
- **PART 4 - Lab**

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Lab

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CICD and Security on Github

Why GitHub

The main developer platform

- Build and ship software
- Complete solution
  - Provided Runner (+ codespace)
  - Provided Hosting
  - Security features
  - Collaboration features
  - Widely used by most open source software
  - Copilot, AI for development

github.com Traffic Analysis

Github.com is ranked #42 in the world. This website is viewed by an estimated 17.5M visitors daily 101.9M pageviews. This equates to about 531.2M monthly visitors. Github.com traffic has increase compared to last month.

Daily Visitors	Monthly Visits	Pages per Visit	Visit duration	Bounce Rate
17.5M	531.2M	5.81	06:42	37.20%
▲19.25%	▲11.52%	▲3.74%	▼0.31%	▼1.62%

About YAML

Important to start

JSON

```
{
"employees":
   [
     {
      "id": "40159",
      "name": "John",
      "technology": "Cloud computing",
      "title": "Engineer",
      "team": "Development"
     }
   [
}
```

YAML

```
employees:
   - id: '40159'
     name: John
     technology: Cloud computing
     title: Engineer
     team: Development
```

About YAML

Important to start

- Be carefull of indentation and space
- Think JSON, remove delimiter
- Read editor help
- Find a tutorial if needed (https://www.cloudbees.com/blog/yaml-tutorial-everything-you-need-get-started)

Lab agenda

What's up today ?

- Exercice 1 : Hello World
- Exercice 2 : Build and Test
- Exercice 3 : Execute SCA
- Exercice 4 : Execute SAST

All explained in the README, read carefully

Remind me to give you HINTS before we leave

Let’s go

Time to start

1. Login (sign-up?) to github
2. Go to “https://github.com/bhilaire1a/devsecops-polydec24”
3. Fork the REPO
4. Start the exercice
5. Keep a record of expected results of the exercice

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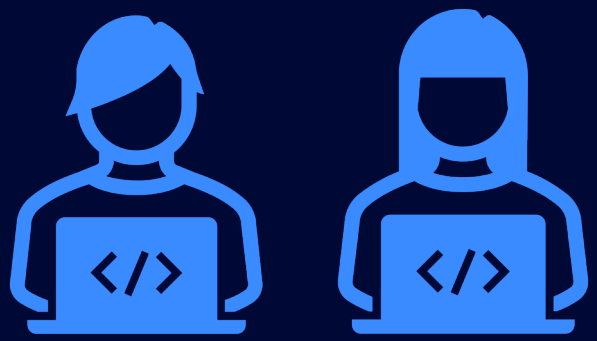
Time to code !

https://github.com/bhilaire1a/devsecops-polydec24



HINTS

Some helps for the lab

Exercice 1

This exercice can done thanks to steps explained in [Github tutorial guide 1](https://resources.github.com/learn/pathways/automation/essentials/building-a-workflow-with-github-actions/)

Exercice 2

This exercice be done thanks to steps explained in [Github tutorial guide 2](https://resources.github.com/learn/pathways/automation/essentials/how-to-make-an-application-with-github-actions/) and [Github tutorial guide 3](https://resources.github.com/learn/pathways/automation/essentials/application-testing-with-github-actions/)

Exercice 3

The usual SCA for nodeJS is included in npm and is [npm-audit](https://docs.npmjs.com/cli/v9/commands/npm-audit)

Exercice 4

A simple SAST for NodeJS is [Bearer](https://docs.bearer.com/)