CI/CD Pipeline

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About me

A few facts about me:

- I am currently a Cybersecurity student at the Lviv Polytechnic.
- I am interested in DevOps and want to improve my professional skills.
- I am a friendly and sociable person. I easily find a common language with people.
- I love doing sports and keeping fit. It helps collect my thoughts.

Motivation

To create my first real CI/CD project and get an understanding of how DevOps tools work. It undoubtedly helped me to improve my professional skills.
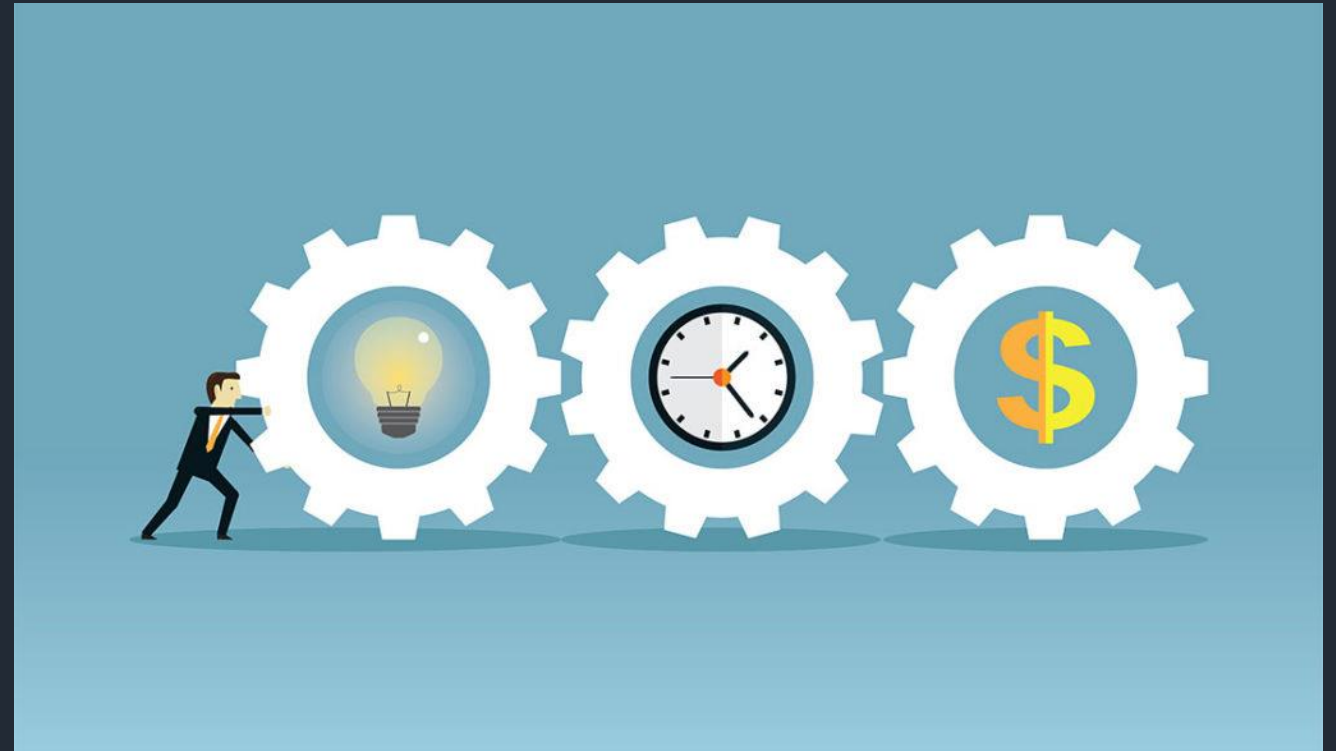
Relevance

Nowadays, there is a huge amount of projects for which agile methodology is the best strategy. CI/CD pipeline is one of the parts of this. In this project, I want to introduce you to my variant of realization.

Goals

My project has several goals:

- Automation
- Acceleration
- Isolation
- Easy shipping
- Visualization

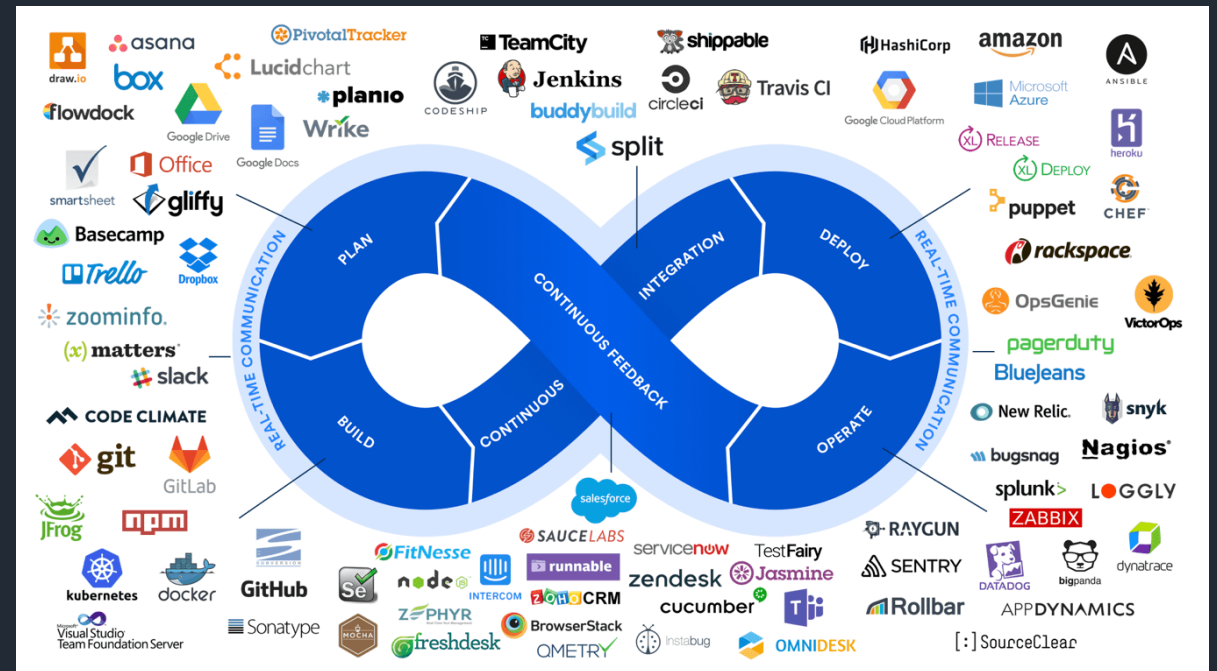# Tasks

Some of the tasks:

- Dockerize infrastructure
- Build
- Test
- Save artifacts
- Initialize AWS infrastructure
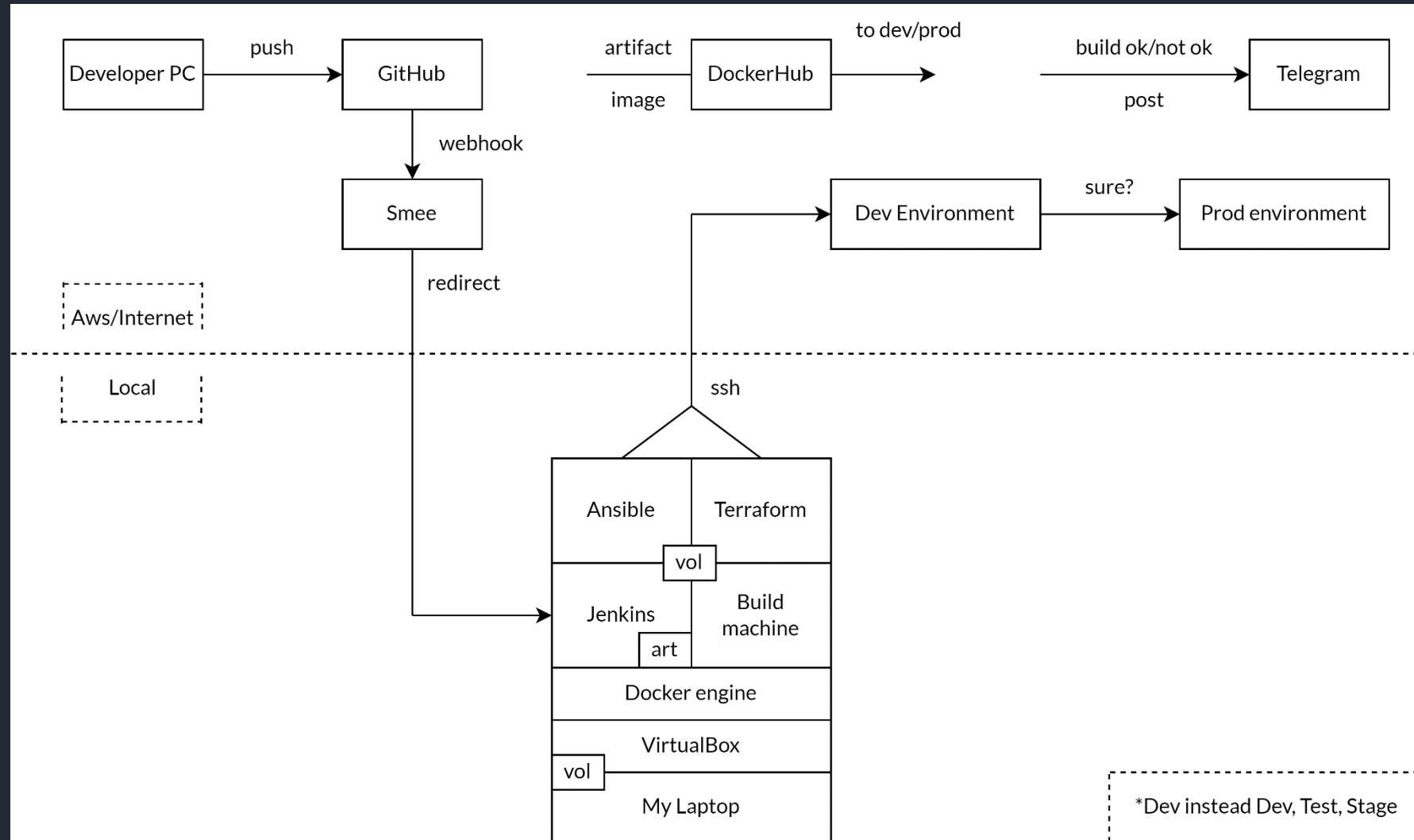- Configure environments
- Deploy

Technology stack

Selected technology stack:

- GNU/Linux
- Docker
- Jenkins
- GitHub
- Smee
- Amazon Web Services
- Terraform
- Ansible
- Telegram

Inside project

Developer PC — push → GitHub

GitHub — webhook → Smee

Smee — redirect → (to Jenkins)

artifact / image → DockerHub

DockerHub — to dev/prod →

build ok/not ok / post → Telegram

Dev Environment — sure? → Prod environment

Aws/Internet

Local

ssh

Ansible | Terraform

vol

Jenkins | Build machine

art

Docker engine

VirtualBox

vol

My Laptop

*Dev instead Dev, Test, Stage

Pipeline

Tests

Artifacts

DockerHub

🔒 cradge / **petclinic**

petclinic ✏️

🕐 Last pushed: 7 hours ago

Tags and Scans

🛡️ VULNERABILITY SCANNING - **DISABLED**
Enable

This repository contains 1 tag(s).

TAG	OS	PULLED	PUSHED
🟩 latest	🐧	5 minutes ago	7 hours ago

See all

Webhooks

Webhooks / Manage webhook

Settings   Recent Deliveries

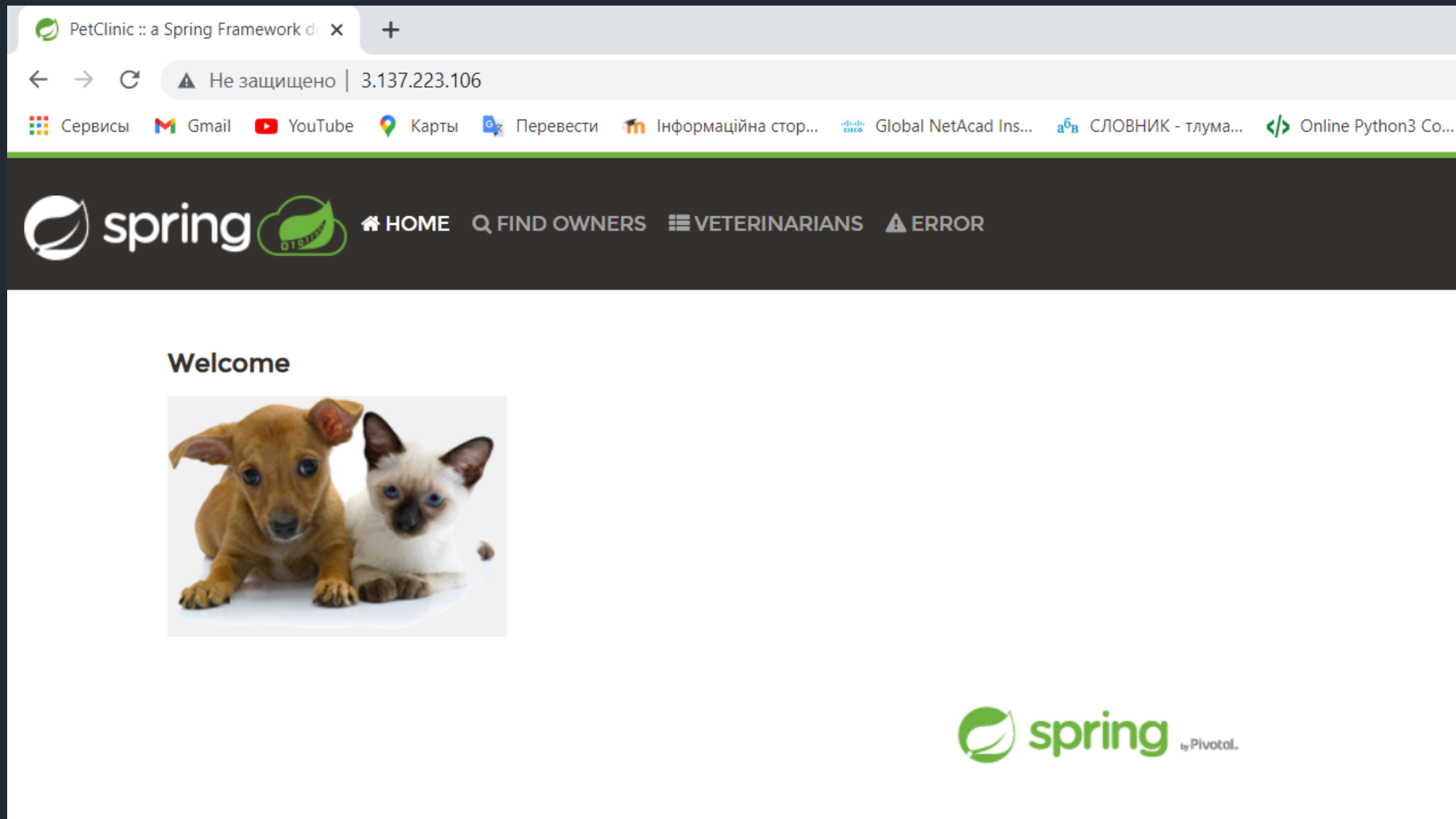We'll send a POST request to the URL below with details of any subscribed events. You can also specify which data format you'd like to receive (JSON, x-www-form-urlencoded, etc). More information can be found in our developer documentation.
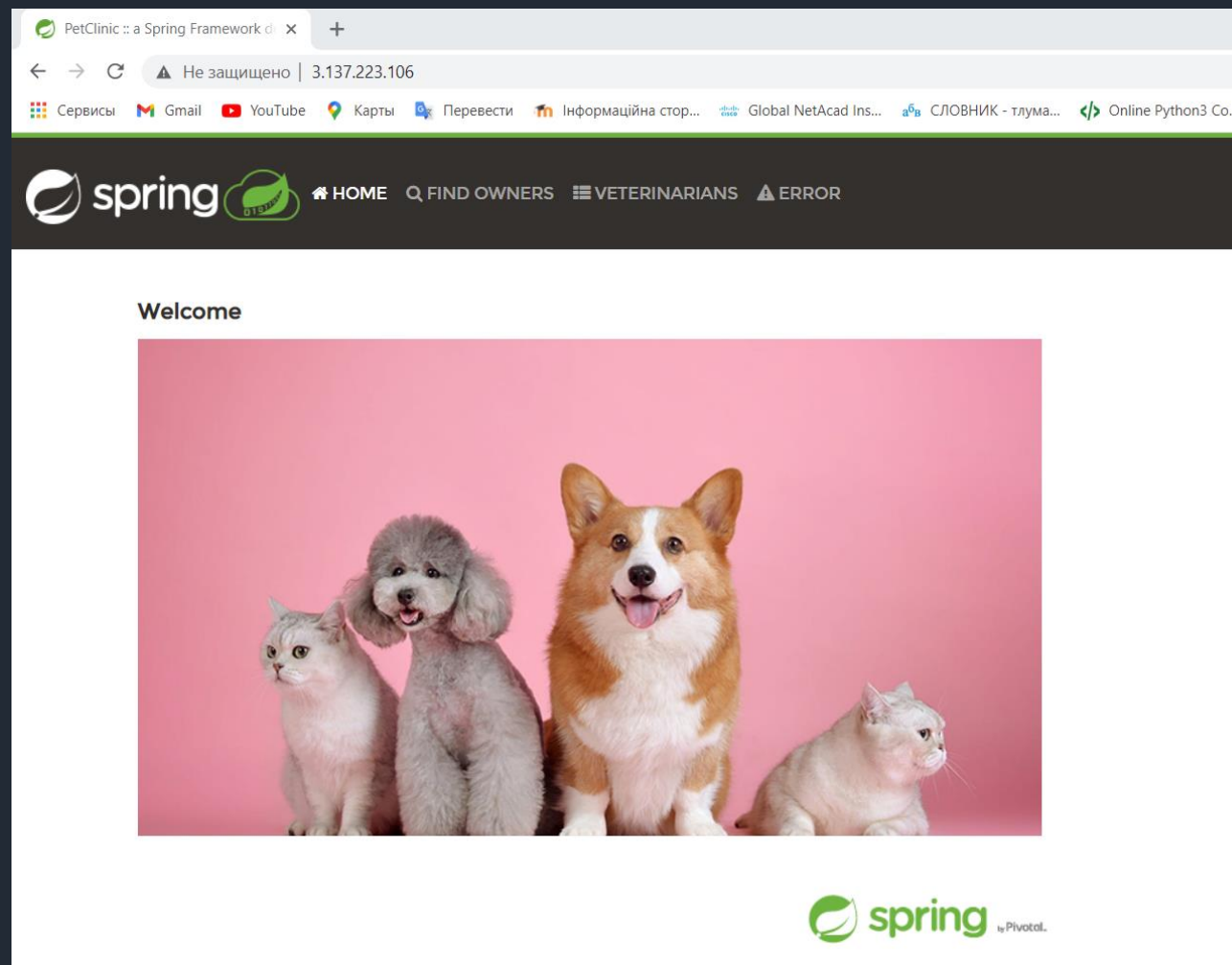
Payload URL *

https://smee.io/HOHdvKhr7ggOZj4Q

Content type

application/json

```
mike@mike-VirtualBox: ~

jenkins@61cf016dabc4:~/.provision$ sudo cat nohup.out
Forwarding https://smee.io/HOHdvKhr7ggOZj4Q to http://127.0.0.1:8080/github-webhook/
Connected https://smee.io/HOHdvKhr7ggOZj4Q
POST http://127.0.0.1:8080/github-webhook/ - 200
POST http://127.0.0.1:8080/github-webhook/ - 200
POST http://127.0.0.1:8080/github-webhook/ - 200
POST http://127.0.0.1:8080/github-webhook/ - 200
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```

Results

Results

Thanks for your attention!