EPAM: Final Project

Contents

[Aims and goals 2](#_Toc120112793)

[Theme 2](#_Toc120112794)

[Motivation 2](#_Toc120112795)

[Relevance 2](#_Toc120112796)

[Goal 2](#_Toc120112797)

[Projecting 3](#_Toc120112798)

[Minimum 3](#_Toc120112799)

[Medium 3](#_Toc120112800)

[Maximum 3](#_Toc120112801)

[Realization 4](#_Toc120112802)

[Minimum 4](#_Toc120112803)

[Medium 4](#_Toc120112804)

[Maximum 4](#_Toc120112805)

[Demonstration 5](#_Toc120112806)

[Minimum 5](#_Toc120112807)

[Medium 5](#_Toc120112808)

[Maximum 5](#_Toc120112809)

[Summary 5](#_Toc120112810)

# Aims and goals

## Theme

DevOps knowledge in practice

## Motivation

I’d like to use my knowledge in practice, make my first DevOps project for getting new experience and my resume.

## Relevance

Modern society depends on information technologies in general on various software in particular. The growing challenges and needs in different industries require the development and use of more sophisticated software by increasing complexity, risks increasing the number of mistakes during deploy code at servers much time. Thus, my research/project is actual and time-intensive task which could solve this problem.

## Goal

My main goal is automating process between development (GitHub) and deploying to Cloud (Ops), made is secure and reliable.

# Projecting

## Minimum

1. Development part ✅
   1. Host with git (may be virtual box) ✅
   2. Created a static website by GitHub Pages ✅

<https://github.com/fecton/site_with_interesting_info>

<https://github.com/fecton/epam_l1>

* 1. Define repositories for using ✅

1. Deploying part
   1. CI/CD framework (Jenkins) with “white” IP in AWS. The main goal of Jenkins is to get updated project from GitHub, build it and move it to a storage of artifacts (delivery) or deploy it to a target server. ❌
   2. Configuration management tool (Ansible) – use for up machines and first setup an environment for the project
   3. It’s necessary at Jenkins master redirects jobs to its nodes (slaves). In case with web-page this task may be skipped and start deploying to a target server. ❌
   4. Docker and containerization may be used by the following way: organize jenkins’ startup and in its node containers and target- servers also in a container. ❌

## Medium

1. As a project core must be a GitHub-prototype medium/large project on ***Java*** (for example, ***PetClinic***) with using ***maven*** (***ant***, ***gradle***), testing and deploying. ***Python*** project is also possible in existing GitHub repository. ❌

## Maximum

1. Unique author’s project (***Java, Python, .Net, etc.***) with using IaC (Infrastructure is a Code) (***Terraform, CloudFormation, etc***), using cloud service’s ***DBMS***, using the technologies of deploying, for example, ***blue-green deployment***. ❌

# Realization

## Minimum

## Medium

## Maximum

# Demonstration

## Minimum

## Medium

## Maximum

# Summary

Here is my finished goals