

Project Plan

Project definition

Developing a product based on the concept of Reusable Infrastructure. Such an environment requires automation software controlling the deployment of flexible infrastructure. The main highlight of this case study is the AWS (Amazon Web Services) Cloud. And, depending on the requirements in the official Case Study document, our team is going to adapt the concept and implementation of the final application.

Our project is called ΣDAD (Σtensible Dynamic Apache-Kafka Deployer). It essentially forges the frameworks studied during the semester into one product.

The project's idea is to deploy Apache Kafka data streams where users can stream and share data across devices.

Project background

We were tasked to create a project idea based on the MOSCOW table provided by Fontys. After consulting the needed features and tech stack we produced a fortification of our project, so we decided to create a platform which allows the user to deploy Apache Kafka stream channels in AWS.

Project goal

Delivering reliable and secure product that follows the supplied requirements while keeping our unique conceptual contribution to the project's overall background.

Way of working

By using the tools learned during the semester and setting up a firm work environment by having effective communication as well as distributing the task-force equally, we are prone to success. From a professional standpoint we are also responsible for organizing the meetings with the client and supplying vital information on time. Here are some of the tools that are going to be used during the Case Study:

Tools and services

1. Ansible – managing AWS services
2. Terraform - for creating AWS services
3. AWS – cloud infrastructure
4. Apache Kafka - as a service

Communication and Documentation

1. Discord – for communication
2. Microsoft Office – for communication with the client
3. Jira - for an Agile workflow
4. Confluence - for documentation

Scope

Our scope is broad in many terms. First, we can use a wide variety of technologies to complete the case study together with the ones that we must have depending in the Fontys documentation. Also, we have a lot more stakeholders. We are going to make a platform that will be easy to use for a lot of people and help them with their work. So overall I can say that we are not limited to a lot of things and our plan is to have all the MUST haves and go for other technologies that we will need to complete the project.

Development team

Our development team consists of three members:

- Evgeni Kurtev – DevOps/developer
- Martin Dobrev – DevOps/cloud architect
- Nikola Hristov – Security manager/documentation leader

Risk assessment

Risk description	Risk metrics	Counter measures
Lack of technical adequacy of a teammate on a part of an assigned project task.	Moderate	Consistent communication with the other members is essential to prevent late deliveries of services.
Teammate absence (due to illness or impossibility to take part in the work)	Low	Inform the group members promptly to redistribute the taskforce.
AWS resource inconsistencies	Very High	It cannot be delegated in any way. Only informing the stakeholders can be taken as a measure.

Deliverables

In the end of the semester, we are going to deliver a product a product that will satisfy the university's requirements, documentation about the project that will explain its functionality and the whole work process that our group went through.

Planning

We are going to follow the instructions in the official planning table, in an Agile manner while staying within the parameters of the study roadmap provided by Fontys and delivering the documentation and project features on time.