**Project Plan**

**Media storage service**



Project Members:

* Kaloyan Andreev (4408020)

Elaboration Date: 12/05/2022

Table of content

[1. Project Definition 3](#_Toc104754821)

[1.1. Background 3](#_Toc104754822)

[1.2. Problem definition 3](#_Toc104754823)

[1.3. Project Goal 3](#_Toc104754824)

[1.4. Expected result 4](#_Toc104754825)

[1.5. Way of working 4](#_Toc104754826)

[1.6. Scope 5](#_Toc104754827)

[1.7. Agreements – made with the tutor 5](#_Toc104754828)

[Professional agreements 5](#_Toc104754829)

[Technical agreements 6](#_Toc104754830)

[2. Project Structure 7](#_Toc104754831)

[2.1. Development Team 7](#_Toc104754832)

[2.2. Tutor 8](#_Toc104754833)

[3. Deliverables 9](#_Toc104754834)

[4. Risk assessments 10](#_Toc104754835)

[5. PERT Chart 11](#_Toc104754836)

# Project Definition

## Background

The project aims to develop and provide an IT SaaS, able to store and manage files for large-scale media companies. The software manages the files stored in a remote server (managed by us), which then can be viewed and organized in a web application.

The following are the minimum requirements we will follow:

* **Develop**:
  + *Flask web application*
  + *Tkinter application*
  + *Database*
  + *Container for applications and database*
* **Comply with GDPR**
* **Install and setup a pen-tested network with:**
  + *IDS/IPS*
  + *Monitoring tools*
  + *Analysis of log and event files*
  + *RADIUS*
  + *RAID*
* **Follow security guidelines (CIA triangle, application and structural security)**

## Problem definition

Imaginary clients for this project are companies that are looking to securely store their media files in a remote server. An easy-to-use application will be delivered, which will provide a flexible, simple, and effective media storage management experience. The aim is to reduce storage costs for companies, while fulfilling any security expectations they may have.

## Project Goal

The main goal of this project is to develop and provide the aforementioned tool, while also developing a proper secure infrastructure.

Because of dealing with private, confidential, company files, security is one of our main points of focus. To achieve this, the network will be devised with a configured firewall, RADIUS, IDS/IPS, GDPR compliant systems, and more. This network will also be pen-tested to protect it from external malicious attacks.

The clients will connect to the network, and using the provided tool, will be able to store remotely their desired files. A ‘Tkinter’ application is going to be used for uploading and deleting the files located in our server. The web application will be used for managing and updating these same files.

To keep the system up and running and to prevent unexpected crashes an informative dashboard is planned to be implemented to our infrastructure which will monitor the status of the system and hopefully will foresee any problems that need to be handled.

## Expected result

It is expected to successfully develop the already mentioned applications as well as stable, functioning security implementations to the network.

The minimum expectations are to provide the full product with most basic features, while having some degree of security compliance.

## Scope

In the following 6 weeks a fully configured server infrastructure and applications will be delivered. Additionally, two clients will be implemented to serve as a demonstration for potential clients. A third client will also be implemented for administrator purposes. A dashboard displaying live statistics of the server will be created as well, in conjunction with a system logs and event tracker. The documentation will include a Project Plan, Design Document, User Requirement Specifications and Security analysis.

# Deliverables

The deliverables are:

* **A Project Plan detailing a rundown of the project.**
* **A Design Document providing our setup, configuration, and more information regarding the project.**
* **Tkinter application to upload and delete files.**
* **Web application to manage and get info from the files.**
* **A working Infrastructure according to all requirements needed for our applications to work.**
* **The given weeks to work on the project will be divided in “Sprints”, each comprised of two weeks. The following are our deliverables by sprints**:
* *Sprint 1:*
  + - Develop project plan.
    - Start configuring the network.
    - Research into Flask web application, Tkinter application.
* *Sprint 2:*
  + - Develop USR.
    - Devise design document.
    - Finish network configuration. Develop manual
    - Start applications development.
    - Research pen-testing.
* *Sprint 3:*
  + - Finish applications development.
    - Pen-test the network.
    - Devise Security manual.
    - Test the system. Develop manuals.
    - MVP release.
* *Sprint 4:*
  + - Final adjustments.
    - Documentation check.

# Risk assessments

|  |  |  |
| --- | --- | --- |
| **Question** | **Response** | **Details** |
| Unable to synchronize files | high | * Consult Sync Thing documentation * Do a check in all the synchronized hosts * Verify network integrity |
| Unable to upload/delete files | Very high | * Check database interaction * Check transfer protocols * Verify network integrity * Verify file integrity |
| Unable to edit files | Medium | * Check code error logs * Check code: formatting, parsing |
| Unable to send files | Low | * Check code error logs * Verify network integrity * Verify hosts network/sys details |
| Monitoring not working | Medium | * Verify Zabbix installation * Check Zabbix documentation * Re-install agent on host |
| VPN not working (not accessible remotely) | High | * Check pfSense settings * Check OpenVPN profile * Check code |
| Tkinter app not working | Low | * Check code * Verify network implementation * Verify DB interaction |
| IDS/IPS not working | Medium | * Check pfSense settings * Check Suricata settings * Verify Suricata installation |
| Network is not secure (pen-test fail) | Medium | * Verify network structure * Check network settings * Attempt different pen-testing |
| File-transferring is not secure | High | * Check used protocols * Analyze traffic * Check code * Research to implement specialized tool |

# Diagram Description automatically generatedDiagram Description automatically generatedPERT Chart