ICT & Infrastructure S2 – Case study 3

**

Develop you own idea

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# *Introduction*

In the 3rd case study you will form new group of 3 students and develop an infrastructure for your own idea with basic requirements given to you. This project last for 7 weeks.

Every group have one Tutor who has also the role of client in this project. You are responsible for all the communication with your tutor and also planning of the meetings. You must officially plan weekly meeting and send invitation to your tutor.

# Assignment

This is the time you create your own idea from scratch. Your team must brainstorm and develop a product. You have a week to create your first pitch to the client. This product must have the minimum constrains as follow:

**Managing and Securing**

* Find out which parts of Infra setup need installation and setup of:
  + IDS/IPS
  + Monitoring tools
  + Analysis of log and event files
  + Demonstrate your pen-testing skills:
  + To which assets of Infra setup?
* Demonstrate your Infra setup compliant to GDPR

**Provisioning and connecting**

* Design the system that is resistant to a failure (think about design for failure).
* Design few tasks using Bash.
* Use RADIUS.

**Programming**

* Flask web application
* Tkinter cross-platform application
* Container for the application and database
* Application Deployment modeling
* Structural and behavioral modeling
* Application security

These are the minimum constrains and your idea MUST follow the constrain and extend them with all the knowledge of previous phases.

# *Planning*

This project will start on week 11 with a kick-off session and ends on week 17 with a presentation and a demo. In kick off session you will be introduced to the project by your mentor, you will form the groups of 3 and sign up in the canvas groups and create a repository for the project. Tutor will be assigned to you after a short time.

You must use Agile methodology in this project with 3 sprints of 2 weeks. There are deliverables for each sprint and missing deadline have negative mark. There will be weekly meetings planned with your mentor to monitor your progress and deliverables.

**Note**: All team members must be present for meetings and more than 1 absent will lead to an automatic fail.

**Documents:**

This is the list of documents must be delivered for the project and their deadlines:

1. Project plan
2. User Requirement Specifications document
3. Design document
4. Process report
5. User & Technical manual

|  |  |  |  |
| --- | --- | --- | --- |
| sprint | week | Project | Deliverables |
| 1 | 11  12 | Intro to project  Investigate the requirements.  Make project plan. | Project plan final  Idea pitch  URS  Product Roadmap  Sprint 2 Goal |
| 2 | 13  14 | Work on project    Work on project | Develop stories  Design document  Sprint 3 Goal |
| 3 | 15  16 | Work on project  Deliver project | Testing  Manual  MVP release  Documentations   1. Process report 2. URS final 3. Design document final |
| X | 17 | Assessment week | Presentation and Demo |

# *Assessment*

At the end of this project by week 17th, you have grown as a group and as individuals. Your growth will be measured by the coverage of the learning outcomes in your project. Every student gets an individual grade.

Since this project leans very hard on group-work, you should be there on every scheduled moment. The first time you miss a meeting and do not have a good reason, you get a warning. The second time you miss a scheduled moment without a good reason, you are no longer welcome in the group: you must leave the group. In this case your final grade will be P. If you or your group are constantly late in handing in deliverables and/or attending meetings, then you will also no longer be welcome to attend Project. We expect a professional attitude.

# *Appendix A: Project plan*

A sufficient structure of the Project plan might include the following:

* Cover page
* Table of contents
* Project definition
  + Project background
  + Problem definition
  + Project goal
  + Expected result
  + Way of working
  + Scope
* Project structure
  + Development team
  + Tutor
* Risk assessment
* Deliverables
* Planning

# *Appendix B: URS (User requirements specification)*

A sufficient structure of the URS might include the following:

* Cover page
* Table of contents
* Introduction
* Product vision
* User personas
* User story mapping
* Product Roadmap
* Sprint’s goal

# *Appendix C: Design document*

A sufficient structure of the Design document might include the following:

* Cover page
* Table of contents
* Agreements – made with the tutor
* Requirements
  + What should the system be able to do?
  + Group them by
  + Prioritize them
* System setup   
  Describe the architecture of your system
* Network configuration
  + Network drawing and description
  + Description of the services
* GUI
  + Image and description
* Website wireframe
  + Provide a brief description regarding the design
* Data base design (ERD)
  + Provide a brief justification regarding the design

# *Appendix D: Process report*

A sufficient structure of the Process report might include the following:

* Title page
  + Table of contents
  + Global work division
* Week 1:
  + Minutes
  + Agenda
  + Who did what?
* Week 2:
  + Minutes
  + Agenda
  + Who did what?
* …
* Week 7:
  + Minutes
  + Agenda
  + Who did what?
* Mark justification
  + What mark do you feel you deserve?
  + Justify by mentioning the strong and weak points of your system and process
* Individual reflections
  + Strong/Weak traits that affected the project
  + Learning moments from the project
  + Evaluation of spent effort
  + Improvements for next project (what could you do better next time?)
* Appendix A: Report of the interview with the client