

Assignment 1 Guidance

Task 1 – Software Requirements Specifications and Software Design (P1 – P2 – M1)

First, you need to write Software Requirements Specification to describe user and system requirements. You can use included template (SRS-template.docx).

In order to be well-prepared before the implementation, you could produce the Technical Design including below items: screen flow diagram, Entity Relationship Diagram (ERD), Class Diagram and Activity Diagram of the system.

For Risk analysis and management, you need to identify Risks (for e.g., technical problem, Human Resource, Time Management, etc.) and perform Risk Management Plan by using included template (Risk-management-plan-template.docx).

Word limit: No word limit

Task 2 – Technologies evaluation (P3 – M2)

For this part, you need to perform a set of evaluation of different software development tools, techniques and technologies for the project such as:

- Design Tools
 - Tools to design UML
 - Tools to design User Interface
- Front End technology stack
 - Programming Language: JavaScript, TypeScript, etc.
 - HTML/CSS/SCSS/SASS/LESS etc.
 - JavaScript Library / Framework: Angular, ReactJs, VueJs, jQuery, Ajax, etc.
 - CSS Framework
- Back End technology stack
 - Programming Language: e.g. Java, PHP, Python, C#
 - Operating System: Linux, Windows
 - Web Server: nginx, Apache, IIS
 - Database: MySQL, SQL Server, PostgreSQL, MongoDB, etc.
 - Hosting: Firebase, Azure, AWS, Google Cloud
 - Frameworks: Laravel, Express, .NET, Flask, Django, etc.
- Tools for source control management
- Software Development Models

In order to make your chosen tools, techniques and development tools clearer, you will have to justify your choice with clear explanations and evidences.

Then, you have to conclude which tool, technology that are described above to make the project.

Then you will illustrate all your findings on how to use these by drawing the overview

Word limit: 5000 – 7000 words

Software Requirements Specifications

Use *SRS-template.doc* and *Risk-management-matrix-template.docx*

Evaluation Report

Chapter 1 - Design Tools

1. Tools to design UML
2. Tools to design User Interface
3. Conclude which tools will be used for the design of the application

Chapter 2 - Front End technology stack

1. Front End Programming Language
2. HTML/CSS/SCSS/SASS/LESS etc.
3. JavaScript Library / Framework
4. CSS Framework
5. Conclude which Front End technologies will be used for the development

Chapter 3 - Back End technology stack

1. Back End Programming Language
2. Operating System
3. Web Server
4. Database
5. Hosting
6. Frameworks
7. Conclude which Back End technologies will be used for the development

Chapter 4 - Tools for source control management

1. Git, GitHub, GitLab, etc.
2. Conclude which tools will be used for the development

Chapter 5 - Software Development Models

1. Introduce several SDLC models: Scrum, Waterfall, V-model, etc.
2. Conclude which SDLC model will be used for the development (Waterfall, Scrum, etc.) with explanations

Chapter 6 - Illustrate all your findings on how to use these by drawing the overview

