Web-based Requirements Management Tool for Students:
Enhancing Specification and Tracking through Gamification Techniques

Supervisor: Nuno Pombo (ngpombo@di.ubi.pt)

Co-Supervisor: Sofia Ouhbi (Uppsala University, Sweden)

Objectives

This project aims to develop a web-based tool for requirements management to aid students in specifying, tracking, and managing requirements related to their software development projects. The tool will assist students in understanding how to correctly specify requirements and make it easier for them to manage their projects. The tool will include several features to help students in the requirements management process, such as recommendations on how to specify requirements correctly, and visual aids like progress bars, to help students understand the progress of their project. To improve user experience, the tool will include gamification elements, such as the ability to select stars to set the requirement priority. This will make the process of specifying and managing requirements more engaging and interactive for students. Additionally, the tool will be web-based, making it easily accessible for students to use from any location.

Keywords

Programming, software engineering, gamification.

Workplan

The workplan encompasses complementary tasks as presented below:

• T1 – Technological background study (0.5 months);

• T2 – Requirements analysis (0.5 months);

• T3 – Design and development (1 month);

• T4 – Testing and evaluation (1 month);

• T5 – The writing of the report (1 month).

	Oct	Nov	Dec	Jan
T1	X			
T2	X			
T3		X		
T4			X	
T5				X

Required Skills

Hard skills: Programming skills, and software engineering

Soft skills: Creative, proactive, responsible, resilient, willing to learn, and able to work in a team.

Deliverables

In this project work the following deliverables are expected:

- Experiments and simulations on the designed scenario(s);
- A report describing the method and the validation results.