# Project proposal/Internship

Academic Year 2024/2025
**2nd Semester**

## App Performance - Framework of Tests

**Summary**

## 1.    SCOPE

In Mindera and our clients there is a high relevance and demand to have our deliverables met a high industry standard in performance. This leads to Mindera's developers  pioneering strategies in our solutions that aim excellence but also in the way we evaluate our mobile deliverables. Within this context we decided to create an internship program that offers students the opportunity to explore mobile application performance, gaining practical experience in analysis and optimization across these platforms.

## 2.    OBJECTIVES

The present project/internship aims to achieve the following goals:
- Identify performance metrics.
- Develop a framework capable of implementing them.
- Track and analysis of results, giving proposals of performance enhancement.
- Solution aligned with industry standards.
- Document the process and results for future reference and replication.

## 3.    TASK LIST

The internship will focus on the following tasks:
- **T1** - Explore the concepts and fundamentals of non-functional requirements and performance in mobile applications.
- **T2** - Hands-on on the internal mobile application project that will serve as a basis for applying the performance testing tool.
- **T3** - Identify and document the requirements and features of the performance testing tool by collaborating with a development team of QAEs and Developers.

- **T4** - Implement a performance testing task – evaluating one of the metrics identified - that will serve as a Proof of Concept (POC).
- **T5** - Iterate on other implementations/metrics gathered and defined in T3 – depending on the results of iteration T4

- **T6** - Produce technical documentation and user guides on the final state of the implemented tool.
- **T7** - Analyse the potential of the tool, notably identifying current advantages, improvements recorded in the projects where it was used, and identifying next iterations in the development.
- **T8** - Produce Final Report for University

## 4.    TASK SCHEDULE

| Task | Fev | Mar | Abr | Mai | Jun |
|------|-----|-----|-----|-----|-----|
| T1 | | | | | |
| T2 | | | | | |
| T3 | | | | | |
| T4 | | | | | |
| T5 | | | | | |
| T6 | | | | | |
| T7 | | | | | |
| T8 | | | | | |

## 5.    SITE AND WORK SCHEDULE

Work may be fully remote, partially remote or fully at office..

## 6.    USED TECHNOLOGIES

The internal project that will serve as the basis for implementing this performance testing framework already has 2 setups for UI Tests that can be reused Appium—a mobile testing framework—with Java, or Maestro – another mobile testing framework. Nevertheless, we are open to incorporating other technologies that can enhance the coverage of performance tests and align with the current project's requirements.

The additional technologies and programming languages may vary according to different phases, defined products, and the project's tech stack. This definition will be refined during Tasks 1, 2, and 3, ensuring that the chosen tools and methodologies are the most effective for achieving our performance testing goals.

## 7.    METHODOLOGY

The student will be integrated in existing development teams and will be able to understand first hand Agile principles and Scrum methodology.

## 8.    SUPERVISION

Company: Mindera
Supervisors: [Aires Oliveira](#)& [Luis Esteves](#)
Role: Quality Assurance Engineers