Feasibility Study Document

This document addresses the problem that created the need for the development of our application. This introduces various decision making criteria and pros and cons.

1. Product

PoliSAM (Polimi Study Area Manager) is the web application that we are analyzing in this document.

2. Preliminary Problem Description

There is a need among Politecnico di Milano students to identify the availability of spaces in the University study areas for academic activities specially in Leonardo and Bovisa campuses tha hosts most of the students. Currently, there is no tool available that allows them to get this information. Sometimes students end up searching a number of places before finding the right place and consequently, it results in waste of time, dissatisfaction and decrease of productivity.

3. Technical Feasibility

PoliSAM consists a web interface that can monitor in real time the occupancy of study areas in both University campuses. There are many programming languages that provide enough capabilities for the development of these kind of interfaces namely HTML, CSS, Python, Java, JavaScript, MEAN-Stack and many other Visual Programming Platforms.

4. Social Feasibility

In the absence of any tool that provides this information at present, all the Politecnico students would be affected by **PoliSAM's** deployment. After conducting a small online survey we got acceptance rate of as high as 92% from the students who frequently use University study areas. It was also highlighted from the survey the ease of usage of the proposed app as it can be easily accessed through Polimi Online Services.

5. Scenarios, Costs and Schedule for Alternatives

1) **HTML/CSS/JavaScript for front-end and JAVA/Node.js/Python for back-end**

Working in these environments is intensive and with the available human resource is not an optimal solution. It also incurs higher cost in terms of man-working-hours and slow learning curve for beginners.

2) **MEAN-Stack**

An integrated platform of programming languages which allows the development of both front and back-end, although widely used but very programming intensive and we deviate from the course content.

3) **Visual Programming**

Visual programming enables the development of web applications directly with the definition of logics. It makes the front-end development very easy and appealing at the same time.
