

## Project Synopsis/Project Concept Document (Due: 25<sup>th</sup> January)

Project number	<i>Team 9</i>
Project Title	<i>Software Part-for Clinical Biosensor</i>
Document	<i>DASS Project Concept Document</i>
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### Description

The problem at hand involves the development of an algorithm for quantifying color intensity in a clinical biosensor product designed to test blood samples. To address this, we need to create an algorithm capable of accurately assessing the color intensity from provided sample color gradient spots. Additionally, a Human-Machine Interface (HMI) design is required, incorporating various screens and tabs as outlined in the provided scheme, ensuring a user-friendly experience for effective interaction with the biosensor system.

### Profile of Users

The system is designed to cater to a diverse set of end-users, including doctors, patients, and clinical staff. For doctors, the focus should be on providing a seamless and efficient platform for result interpretation and decision-making. User interfaces should be designed with clarity and accessibility to accommodate medical professionals with varying technical backgrounds. Patients, as end-users, require a user-friendly interface that offers clear communication of results, possibly with simplified language and visual aids. Clinical staff, including laboratory technicians and healthcare administrators, should have a system that streamlines the testing process, integrates smoothly with existing workflows, and provides detailed data for analysis and record-keeping.

### Usage Model and Diagrams (if any)

Doctors will interact with the system to access and interpret test results for their patients. The interface will present clear and concise information, including color intensity quantifications and relevant patient details. The user interface diagram will have a dashboard displaying patient profiles and test summaries. Patients will utilize the system to receive and understand their test results. The interface will prioritize simplicity, providing easily interpretable information. The patient interface might include visual representations of results and facility to share them using wireless communication options. Clinical staff, such as laboratory technicians and administrators, will use the system to perform and manage tests efficiently with a workflow-oriented interface with sections for result validation, and data management, ensuring a seamless experience.

