# Criterion A: Planning

## Defining the Problem

The clients in my Internal Assessment are myself and the rest of the International Baccalaureate students at UWC Dilijan. During consultations with 15 students and 1 coordinator (Appendix A: Survey Results), it became apparent that the manual process of connecting tutors and students via email or group chats leads to delays and inefficiencies. Tutors are underutilized and students struggle to find timely help, especially before exams. This inefficiency undermines the program's goal of fostering academic collaboration.

I chose this topic because I have personally had difficulty finding available tutors during those key preparation periods before exams. Furthermore, as a student tutor, I have noticed that many tutors are underutilized because the current system lacks visibility and accessibility.

An optimized solution can greatly improve the convenience and effectiveness of the program.

## Rationale for the Proposed Solution

The proposed solution is a Telegram bot that will automate the process of finding available peer tutors. This work selects Telegram because it is one of the most used social networking applications among students in my school and it supports bot integration. It will be developed in **Python**, using the **pyTelegramBotAPI** library for the bot and **SQLite** for the database management of tutors and students.

It allows students to search for tutors based on the subject and schedule, while tutors will be able to update their availability dynamically. This will definitely reduce delays, improve user experience, and allow for better utilization of the tutoring network.

This is great, as this is in line with the school's objective of increasing academic collaboration, hence reducing obstacles in accessing academic support. My experience in programming bots will ensure a functional and friendly solution.

## Success Criteria

The following success criteria will determine the effectiveness of the Telegram bot:

- **Ease of Use**: The bot should provide a user-friendly interface for both students and tutors.
- **Efficient Matching**: Students should be able to find a tutor within a short period.
- **Dynamic Updates**: Tutors should be able to update their availability instantly without administrator intervention.

- **Improved Accessibility**: The bot should be available 24/7, ensuring support for students even during non-school hours.
- **Error Handling**: The bot should handle errors gracefully, providing clear feedback to users in case of invalid input or system issues.