## Criterion A: Planning

**Identifying the Problem**

The client Mrs Shaw is the only film teacher in this school, and thus the film department does not receive much technical support. Film IB requires complex timetabling, as students need to meet up to film and edit their films, but equipment needs to be booked out through the school system SIMS two weeks in advance.

This system is insufficient because it wastes valuable teaching time, resulting in inefficiency and stress. Due to school and external obligations students frequently have little free time in which they could do it, so currently large portions of film lessons are taken up by students evaluating when they can meet up to work. If a single student miscommunicates when they are free and agrees to meet up at a time they cannot do then the entire film lesson schedule is disrupted, thus causing all the lesson plans to have to be reevaluated.

Mrs Shaw has bemoaned this issue several times and sought help from the IT department, although they are too busy to attend. She uses an Apple Mac and has limited computing experience, thus as a layman requiring a very usable program. I offered my services after observing the situation with a proposed computing solution and was well-received.

**Success Criteria**

I arrived at the success criteria following emails and verbal consultation with the client **(see appendix)**

1. The program takes input from the user of the following from a .csv file:
   1. Student’s timetables
   2. Student’s names
2. The program returns the following:
   1. The information entered, upon request
   2. The ideal pairing of students for maximum shared time across the groups, in the form of:
      1. Students’ names
      2. Students’ IDs
3. The program will also be usable to Mrs. Shaw and able to run on an Apple MAC and Windows PC

**Rationale for the proposed solution**

Java is a free and flexible programming language with a wide range of resources available to supplement the basic class structure and for support (e.g. Stack Overflow), and I am also familiar with it. The object-oriented approach allows a program to be easily and effectively broken down into many smaller and more manageable sections, and is thus preferred. Furthermore, the code will be able to run on Microsoft and Apple operating systems, both of which are required by the client.

Through Java I would be able to import **.CSV** files of the students’. Reading from a file excuses Mrs. Shaw from having to painstakingly enter each student’s details individually, which would be inefficient, time-consuming, and pointless.