

Criterion A Planning

1. Defining the problem

As the new Chinese educational policy, Chinese students need to choose their favorite 3 subjects as their major subjects. Because of the different majors chosen by different students, the classroom they need to stay is different. When my computer science teacher, Mrs. Wu, talked about this problem, she said we can make a product to check students' attendance because the number of students is various for different classes. She described what she wants: a clear graphical interface can show students' both accumulated and single attendance, a system can automatically calculate the grade of attendance for a student, face recognition is used.

As she was talking about the problem, I thought that is good material for my Internal Assessment. Mrs. Wu agreed to be my client and advisor after I talked to her. In order to get more details, I decided to meet Mrs. Wu to make an interview.

2. Rationale for proposed solution

According to the requirements from Mrs. Wu, I decided to use Java to help me make this product. The reasons I chose this language are:

1. Java is a kind of OOP language. Objects in this language have methods and variables. This character makes the program closer to the real life situation. For my product, OOP is suitable to create a system which can show the attendance for every student indecently.
2. Java is easier to maintain. My project includes both hardware and software. Java is easier to test. If I change some methods or variables of some classes, other classes will not change by some unintentional errors.
3. Java is extensible. Because of the requirement from my client, I will use face recognition in my project. But there are some available classes, some successful classes which can directly be used for face recognition, we can get from the internet.

3. Success Criteria

1. Product needs to have teachers' interface and students' interface. They must be available for iPhone's users.

2. Product need to automatically recognize students if they walk into the classroom and write the time they walked into the classroom into a file.
3. Product can calculate the attendance grade for each student.
4. Product need to use face recognition.
5. A file contains students' basic information can be input.

word count: 374