Experiment 1

Mini Project

1 Problem Definition

At the moment, most of the attendance systems that are being used in universities still are written a piece of paper. For classes, tutorial and laboratory session the student still have to sign the signature on the attendance sheet. This method is not flexible because the risk of losing the attendance data is very high. Other than that, unethical problem may be occurring such as proxy in signature.

It will also help in evaluating attendance eligibility criteria of a student and send the students necessary reminders in order to fulfill the criteria. This system is proposed to overcome these problems.

2 Project Scope

A. Description
Our Main Aim is to automate the tradition way of attendance management. We intend to reduce time required by the manual approach. Our system provides a modern approach, hence making it viable perennially. it also removes manual labour thereby increasing the efficieny of the model as a whole. Our model also provides a reminder system which would help in improving attendance of students in class. Our main target for developing this tool is to save efforts of teachers in maintaining records of attendance and hence allowing them to spend their time more efficiently making tedious practice of transferring records from hard copies into excel sheet obsolete.

B. Criteria
1)Registration of all the students and faculties by providing their facial images from 5 different angles.

2)Creating separate databases of students and faculties from the acquired images.

3)Live video of the lecture will be captured for 15minutes after the professor enters the classroom and attendance will be marked accordingly using facial recognition.

C. Project Deliverables
1)Students will login into their accounts on the web portal and check their attendance. The students will also have a personalised dashboard.

2)The Teachers can also login to their accounts and check their daily attendance percentage in their lecture as well as have a look at their weekly schedule. Teachers can also upload their teaching content which will be accessible to he students.

3)Students with low attendance will be sent reminders regarding the same within sufficient recoverable time. Students can also apply for attendance concessions.

4)At the end of each month a defaulters list will be released indicating the list of students with low attendance not meeting the required criteria.

3 Process Model

WaterFall Model
1)Waterfall Model is a sequential model that divides software development into different phases. Each phase is designed for performing specific activity during SDLC phase. It was introduced in 1970 by Winston Royce.

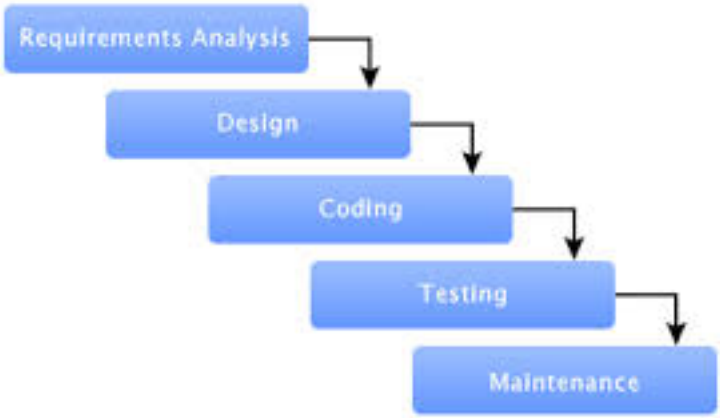
2)The waterfall model is a sequential approach, where each fundamental activity of a process represented as a separate phase,arranged in linear order.

3)In the waterfall model, you must plan and schedule all of the activities before starting working on them (plan-driven process).

4)Plan-driven process is a process where all the activities are planned first, and the progress is measured against the plan. While the agile process, planning is incremental and it's easier to change the process to reflect requirement changes.

5)The phases of the waterfall model are:

1)Requirements
2)Design
3)Implementation
4)Testing
5)Maintenance



4 Roles and Responsibilities

A. Project Manager:
Project Manager is responsible for the timely execution and completion of the project. He will work with all the group members and will see that every group member is performing his/her task. He will communicate with the teacher and inform him/her about the development of the project. He can schedule group meetings to look over the development of the project.

B. Designer:
Designer's task will be to work hand-in-hand with the developer and help him with creative styling ideas, improving frameworks to make the project more user-friendly!

C. Developer:
Developer will code on different software's to build a working project as proposed by the manager and team.

D. Tester:
Tester's role will perform checks on the services provided by the software, to see if they are functioning properly or are bugged for a given condition, he will inform the developer about such bugs and will help him to resolve them. He will also check for the maximum amount of data which can be stored in the database and processed by the software. He will set the data-limit accordingly.

5 Conclusion

In this experiment an application was chosen and various descriptions were discussed such as

Problem definition of the System
Project scope
Process model
Various Roles and responsibilities.