ATTENDANCE AUTOMATION SYSTEM

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INTRODUCTION

- The main purpose of this application is to replace the manual attendance method and human interference which consumes a lot of time and effort to maintain the student attendance.
- In our application we will be using face detection technique by eigenface algorithm to automate the whole process of managing the attendance in educational institutions.
- Our application uses the camera to capture the image and will compare with image in the student database and finally attendance will be recorded.
- Instructor will receive an email with a list of students who are absent.
- This will reduce manual errors and all the consolidated student attendance data will be available in the database which will make it easier for instructors to manage the student attendance.



Details

Ryan is a professor who is working at a certain university and has to give a long lecture for 35 students a class and also has to manually take the attendance. He wants to deliver the lecture without wasting any time by taking the attendance manually and checking in with each student at a time to collect attendance data.

Goals:

Ryan needs a method which can give him extra time to focus on deliver his lecture without using the time for taking attendance manually.

Our attendance automation system application can solve this problem by using facial recognition technique to automate the attendance system which gives the professors extra time to deliver the lectures without wasting any time for attendance and receive the email notification immediately after the lecture with the class attendance data.

PERSONA: INSTRUCTOR

MVP

- Which problem does this application solve?
- It will replace the manual attendance method with automated attendance by using face detection technique and it will make the life easier for educational institutions, Instructors and students and it will save a lot of time with the help of this tool.
- Minimum: A tool which provides a platform for the educational institutions and instructors to view student details.
- Viable: A platform for all the instructors and various institutions which enables them to create their profile, add the student details into the database and capture the students attendance by clicking a picture or by uploading an image and receive an email alert with the list of students absent during the class and get the consolidated attendance data.
- Minimum Viable: A Platform which makes the life easier for the instructors and institutions to manage attendance records of the students by saving a lot of time





When admin or instructor open's the application, a Home Page will be shown which provides the option to select their role.



Admin should be able to login and add, modify, delete/update the student details in the database.



Faculty registration page



Faculty should provide their registered email-id and password to get a secured login.



Database for managing the students, faculty details and providing secure login authentication.

ACCEPTANCE CRITERIA

To Do list	Features	Date	Priority
Brain Storming	Group discussion with everyone to gather various ideas 8/30/2020		High
Research Technologies	Group discussion to discuss various technologies to be used in the project	9/06/2020	High
Requirements	Gathering all the requirements related to the project	9/13/2020	High
User Interface	We have started designing the user interface	9/22/2020	High
Home Page	We have created the Home Page	9/27/2020-10/03/2020	High
Admin Page	We have started working on creating Admin Page	10/04/2020-TBD	High
Registration Page	We have started working on creating the Registration Page	10/04/2020-TBD	High
Login Page	Next page after registration	TBD	High
Database designing	We have started working on designing the database	10/04/2020-TBD	High
Dashboard page	Next page after login	TBD	Low
API's for each module	To interact with the database	TBD	Low
Reports page	To display the students reports	TBD	Low

PRODUCT BACKLOG



ID	Features	As	We want	So that
1	Creating a Home Page	Users	A home page with Admin/ Faculty login	We can choose if our school admin or the faculty wants to login with necessary credentials
2	Creating a Login Page	Users	A secure login account with username and password for Admin and Faculty individually	Our personal credentials are safe and secure denying access to unauthorized persons
3	Creating a Database	Developers	Design a Database where we store all the user data (Admin, Faculty and Student private data)	Users can their confidential data with necessary restrictions
4	Creating an Admin Page	Users	To add and view student data along with checking reports	I can add or delete any student when required and will be able to check student report.
5	Creating a Faculty Page	Users	Login in page for existing faculty members if not a registration page. Once logged in, taking attendance and comparing reports	Faculty can login and check the report after each class and will be able to verify all the previous class data

User Stories



Scenario	Test Case	Expected result
Main Dashboard	 Able to see and hover Admin and Faculty page buttons Should be able to redirect to the homepage of Faculty or Admin accordingly 	 User should be able to click on the Admin or Faculty based on the utility User should be able to login with their credentials
Admin/ Faculty Login page	 Sign in using valid username and password Should be able to see the dashboard page after login. 	 User should be able to login using his username and password without any errors Redirected to the dashboard page proving options to manage attendance or view reports.
Faculty Page - Registering a New Faculty Account and Viewing reports	 Sign up with the name, username, password, email address and mobile number Displaying error message if any there are any invalid characters. Displaying error message if trying to register with an already registered/ invalid email address User details verification at database A web page should display reports of the students when clicked on reports if not should pop an error 	 User should be able to signup/register successfully. Proper error message should be displayed if all the fields are not entered as expected. Error message should be displayed for invalid emails User registration details should be stored in the MySQL database Faculty will be able to see the previous data whenever needed
Admin Page - Add and View student details and reports	 A separate page should pop up when user tries to add a student to the existing database with Name, ID and Picture View existing registered student details with their ID's and count should be matching in the database Admin will be check entire report with Name, ID with a jpg file which should be the same in the database. 	

TEST CASES:



SPRINT BACKLOG

• Sprint Goal: We need to create User Stories, Product Backlog, Acceptance Criteria, and Test Cases for our application.

#	Description	Priority	Assignee	Status
1	As a scrum team we need to create user utories for our product.	High	Scrum Team	Completed
2	As a development Team we must create the Product Backlog for our application and decide the grade of difficulty for each point in the Backlog itself.	High	Scrum Team	Completed
3	Group discussion for brainstorming various ideas, requirements gathering and selecting technologies	High	Scrum team	Completed
4	Registration and login page	High	Scrum team	In progress
3	As Scrum Team we need to create Acceptance Criteria for our product.	Medium	Scrum Team	Completed
4	As Scrum Team we have to create Test Cases for our product.	Medium	Scrum Team	Completed
5	As Scrum Team we need to discuss the Powerpoint Presentation as Deliverable 2 of our work until now.	Medium	Scrum Team	Completed





RETROSPECTIVE REPORT

What went well:

- Team collaboration went well.
- Team members were assigned tasks that they were aware of which helps increase the speed in each step
- Collected required information and necessary resources for the project.
- Started working on the User Interface

What needs to be improved:

- More resources can be collected with which we can make this project simple and better.
- Need for more meetings for effective communication.



THANK YOU

