A close-up of a logo

Description automatically generated with medium confidence

**Milestone 3**

A black and white symbol of a person holding a rolled up paper

Description automatically generated with low confidence

*SRM - Team 9*

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CEN 4010 Principles of Software Engineering

Summer 2023

Dr. Shihong Huang

Florida Atlantic University

GitHub Repo: <https://github.com/Juan-M0/Group9>

Trello: <https://trello.com/b/4SMPalFJ/project-board>

*Summary*

Our final project aims to create a Student Report Management System app that will assist teachers to manage student reports and information efficiently. It is designed to automate the report generation and grading process, reducing human errors, and saving teachers valuable time. The app's user-friendly layout will make it simple for users to use.

Some of the key advantages of this system are:

- Real-time report generation: The system generates reports in real-time, saving teachers time and allowing them to complete other important tasks.

-Smooth grading process: The grading process is streamlined, ensuring accuracy and transparency.

-Easy access to information: The system provides easy access to all relevant information related to student’s academic progress, attendance, and behavior.

-User Friendly: The system’s user-friendly interface makes it easy to use and navigate.

The Student Report Management System is a game-changer for teachers, with the automated report generation and grading process, it greatly improves efficiency and accuracy. The platform will also offer a centralized location for teachers to easily manage every aspect of their student’s academic progress. This system is sure to make a significant positive impact on the education system.

The system will improve communication between teachers, students, and parents, create transparency in the grading process, and have faster report generation. This will be an essential value for the education system. By incorporating these values, schools can provide a better academic experience for their students, making the system an indispensable tool in the education industry.

*Competitive Analysis*

|  |  |  |  |
| --- | --- | --- | --- |
|  | StudyTrack (ours) | PowerSchool | Blackbaud |
| Design | 3 | 5 | 5 |
| Usability | 5 | 2 | 4 |
| Functionality | 4 | 2 | 4 |
| Attendance Tracking | 5 | 5 | 4 |
| Progress Tracking | 5 | 4 | 4 |
| Multilingual | 4 | 2 | 3 |
| Average | 4.3 | 3.8 | 4.0 |

Planned Advantages:

StudyTrack is focused on being the easiest-to-use product for users. Having an easy-to-use product allows our users to focus on the task at hand instead of trying to understand how to use our product and wasting time. This is our key to having an advantage over our competitors.

What makes us stand out from our competitors is our very strong usability. With our Usability, very strong, it gives our users everything they need in a neat and organized place which they can easily access use. That will not only be easy to use but enjoyable as well. Our Multilingual future allows our app to be used in different countries.

*Data definition*

|  |  |  |
| --- | --- | --- |
| Name | Meaning | Usage |
| Student | User | Access Grades |
| Parents | User | Access their kids (students) grades |
| Teacher | User | Put in the grades of their students |
| School Admin | User | Access all site features |
| Log in | Service | Site user service |
| Registration | Service | Site user service |
| Main Page | User interface | User interface |
| Home Page | User interface | Log-in screen/registration |
| Account | Data | Holds user information |

(Names and entries will change over time)

Users:( each will have a different level of clearance into the system and have views of others below them, list not in order)

* Student
* Parents
* Teachers
* Teachers Assistant
* school/service system admin/ it support.
* School administration

Data entries:

* Whole numbers
* Decimal numbers
* Fractional numbers
* Letter grade: A -Z
* Word entries
* Files
* Video
* Images
* Audio

Data structure:

* Web-based multi-linked page application
* Spreadsheets like data entry
* Linear data structure: letters, numbers
* Nonlinear data structure: video, audio

*Overview*

The system's main users will be teachers, administrators, and other staff members in educational institutions. Additionally, students and parents can access the application to keep track of academic performance and attendance records.

This system can be particularly useful in high school settings, as it can easily cater to a large number of students and teachers while managing several classes at once. Teachers can use the system to input grades, keep track of attendance, and generate reports for individual students, providing them with a comprehensive overview of their academic progress throughout the year. Additionally, administrators can use the system to monitor the overall performance of the school and take corrective actions as needed.

The system is highly useful in a college environment, specifically for managing student reports. It is capable of handling multiple courses and accommodating numerous professors simultaneously. With this system, professors can easily input grades, keep track of attendance, and generate reports for individual students, enabling them to monitor their academic progress throughout the year. Furthermore, administrators can monitor the overall performance of the college and take necessary corrective actions as needed.

The Student Report Management System is an essential tool for educational institutions to enhance their academic and administrative procedures. With its user-friendly interface, the system can be effortlessly utilized by users of all technical abilities, making it the ideal solution for any educational establishment.

*Use-cases*

**Teacher Use Case:**

- The teacher arrives on the home web page.

- The teacher logs in (or creates an account if he doesn't have one)

- When submitting a student's grade. The teacher selects a template and fills in the required fields like the student's name, grades, and comments, making the process efficient and consistent.

- Once completed, the teacher will submit the report.

**Administrator Use Case:**

- The administrator arrives on the home web page.

- The administrator logs in (or creates an account if he doesn't have one)

- The administrator can use the Student Report Management system to track the progress of student reports.

- The administrator will be able to easily view the status of each report, ensuring that all teachers have submitted their reports on time. If any report is missing, the administrator can send reminders to the respective teachers and intervene if necessary.

**Parent Use Case:**

- The parent arrives on the home web page.

- The parent logs in (or creates an account if he doesn't have one)

- The parent accesses the grades of his/her kid, view teacher comments, and overall, the performance of his/her kid.

*list of high-level functional requirements*

* Create Student Profile - The Admin will have the authority to add, view, and edit details like name, phone number, email, and other relevant information.
* Manage Report Generation - The admin will have the option to generate reports for students. These reports can include academic reports, attendance reports, and behavior reports.
* Attendance Tracking - The admin can easily track the attendance of students in various classes.
* Grade Management - The admin will be able to keep track of all the students’ grades for each of their classes.
* Communication - allows the admin to communicate with the teachers and students, providing updates and important information.

*List of non-functional requirements*

Usability: The system should be easy to navigate and use for administrators and teachers.

Security Requirements: The system should have secure login and password management to prevent unauthorized access.

Availability: The system should be available 24/7

Security Requirements: The system should have secure login and password management to prevent unauthorized access.

*High-level system architecture*

**Discord:** We will be using Discord as our primary means of communication for project development throughout the semester.

**Trello:** We'll be utilizing Trello as a tool for coordinating our tasks and staying on top of deadlines.

software Language:

**Hyper Text Mark-up Language (HTML)** – Use to enable the browser to properly display the content and layout of the website and to create a website that is user-friendly and easy to navigate.

**Cascading Style Sheets (CSS)** – The language used to decorate and style web pages in an easy manner.

**JavaScript** – Use for all client-side functionality in our User Interface UI. This will ensure a seamless and enjoyable user experience for all of our users.

**Browser compatibility:** The application will be accessible through a web browser and will work on browsers such as Google Chrome, Mozilla Firefox, Safari, and Microsoft Edge.

**MySQL Database:** Primary database for the project's data. Users can add data through the website's input function, while developers can manage the data by adding or deleting items from the database.

*Team*

Scrum master - *Ishmaiah Etienne*

* Ensure that the team fully understands and adopts the Scrum methodology.
* Act as a leader for the team, always looking out for their best interests and removing any impediments that may arise.
* Safeguard the team from any unnecessary interactions that could detract from the business value created by the team.
* Facilitate Scrum events as needed, making sure that all meetings are time-boxed and run efficiently.

product owner - *Juan Molina*

* Manage the product backlog,
* Prioritize work items.
* Ensure transparency.
* Clearly defines what items to work on.
* Responsible for Anything to be added/removed/changed in the Product.
* Collaborate with the Scrum team.

Development Team - *Lucas Dizengoff*

- *Youtham Indraws*

* Collaborate cross-functionally to ensure each sprint concludes with a releasable product.
* Work together to identify and tackle tasks while remaining accountable with precise estimates and effective tasking.
* Delivering high-quality products on time.
* Responsible for tasking and providing estimates.

*Checklist*

|  |  |
| --- | --- |
| Team decided on basic means of communications | *Done* |
| Team found a time slot to meet outside of the class | *On-track* |
| Front and back-end team leads chosen | *On-track* |
| GitHub master chosen | *Done* |
| Team ready and able to use the chosen back and front-end frameworks | *On-track* |
| Skills of each team member are defined and known to all | *Done* |
| Team lead ensured that all team members read the final M1 and agree/understand it before submission. | *Done* |

*History Table*

|  |  |
| --- | --- |
| Name | Revision Dates |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

Component Diagram

A black screen with white text

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A computer screen shot of a computer network

Description automatically generatedDeployment Diagram

A diagram of a company

Description automatically generatedUML Diagram