CRITERION A

Defining the problem:

Bodhi valley learning Academy is a Montessori-based learning program developed to enhance reading and writing skills for preschoolers. The program currently operates in two batches, which is the morning preschool and afterschool. The program has had collective success in both the batches and has tallied up to 300 students since its opening. Although recently, Ms.Mallika the founder and primary owner of the school, has found it difficult to organize and store data via electronic means. Having had truly little experience in this field, along with a training staff untrained in this area; I was approached by one of Ms.Malika who briefed me on the issue at hand. I was informed that attendance data was manually stored in paperback registers.

After pointing out the flaws of manually recording this data, me and a few members of the program's higher authorities concluded that this method will no longer work. I proposed the idea of using a web application to overcome this problem. The core idea was for the application to allow teachers to individually keep track of their respective students' attendance, while allowing the admin to view the overall report of each student. The application helps remove the burden of managing different data via different methods, as the application serves the purpose of organizing data with ease. It is supposed to be user friendly and time efficient, which reduces the need of the school having to use paperback registers or calculating student attendance percentage.

Rationale for solution:

I am using PHP as a back-end and HTML, CSS, Bootstrap, as a front end. I will also use Java Script for form validations and AJAX for form submission. I will be using MYSQL as my database. The reason I have chosen PHP is that it is an open source, thus stacks are easily available. PHP is a server-side scripting language, so it is easy to read and understand. In addition to that, I will use XAMPP server to run the PHP code. I am using CSS for styling the layout of the HTML document. Bootstrap is an open source readily available responsive framework, helping in flexibility of layout (mobile view, desktop view, tablet view). I am VS Code as my code editor, as it is frequently used by many front-end developers. The Front-end of the application can be easily developed in less time, and modifications can be done at ease. I have decided to develop it as a web application, enabling the school to operate it from any device.

Criteria for success:

1. Admin should be able to create and delete individual teacher profiles.
2. Admin should be able to create classes and sections.
3. Admin should be able to assign classes to individual teachers.
4. Admin should be able to add students, insert, update, and delete student information.
5. Admin should be able to assign students to classes and sections.
6. Admin should be able to generate both PDF, and chart report of student attendance.
7. While viewing the report, the admin should be able to select specific range of dates.
8. Teacher should be able to login with the credentials created by admin.
9. Teacher should be able to mark student attendance and view pdf report.
10. Teacher should be able to filter the students based on roll number, name and view their attendance.

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