PRESIDIO COMPANY TASK

<u>Task Type Chosen</u>: Console Based CRUD Application/Backend Application

<u>Task done</u>: Full stack - both frontend and backend from scratch

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Department	:	Computer Science and Engineering
College	:	Sona College of Technology
Domain	:	Data Analytics
Technical Skills	:	Python, Tableau, Excel, HTML, CSS, SQL, JavaScript, Flask

Resume link :

https://drive.google.com/file/d/1Afwa7gmf79zSAFVXboZL9bt-Qtxb4td_/view?usp=sharing

Task website link : https://varshini-l.github.io/Presidio_Task/

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Task file link : Teacher Management System

PRESIDIO COMPANY TASK

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PROBLEM STATEMENT:

Title: Console-Based Teacher Management Application

Introduction:

The Console-Based Teacher Management Application is designed to provide an efficient and user-friendly interface for managing teacher records. This application is equipped with features such as displaying all teachers, adding new teachers, filtering teachers based on specific criteria, searching for teachers, updating teacher records, and deleting teacher entries. The application utilizes a file-based system to store and manage teacher records.

Features:

1. Landing/Home Page:

- Show All Teachers: Display a comprehensive list of all teachers, showcasing their full names, ages, dates of birth, and the number of classes they teach.
- Add a Teacher: Allow users to add new teachers to the system, entering relevant details such as full name, age, date of birth, and the number of classes they will teach.
- Filter Teachers: Navigate to a page where users can filter teachers based on specified criteria.
- Search for a Teacher: Enable users to search for a teacher by entering relevant details.

➤ Update a Teacher's Record: Provide functionality to update information in a teacher's record.
➤ Delete a Teacher Allow users to remove a teacher from the system.

2. Teacher's Record:

➤ Full Name: Record and display the full name of each teacher.
➤ Age: Store and showcase the age of each teacher.
➤ Date of Birth: Capture and display the date of birth of each teacher.
➤ Number of Classes: Keep track of the number of classes each teacher is responsible for.

3. Filter Teachers by Criteria:

➤ Filter by Age: Implement an option to filter teachers based on their age.
➤ Filter by the Number of Classes: Allow users to filter teachers based on the number of classes they teach.

4. File-Based System:

➤ Utilize an appropriate file-based system to store and manage teacher records, ensuring data persistence across sessions.

Bonus/Optional Task:

➤ Average Number of Classes: Implement an optional feature that calculates and displays the average number of classes the teachers are responsible for.

LANGUAGES USED:

HTML:

HTML, or HyperText Markup Language, is the standard markup language for creating and structuring web content. It uses a system of tags to define and organize elements on a web page, facilitating the presentation of text, images, links, and multimedia.

CSS:

CSS, or Cascading Style Sheets, styles HTML documents, allowing designers to control the visual aspects of a webpage—colors, fonts, spacing, and responsiveness. It ensures a consistent, appealing user experience across various devices and screen sizes in web development.

JAVASCRIPT:

JavaScript is a dynamic programming language widely used in web development to enhance interactivity on websites. It enables the creation of dynamic content, handles user input, and facilitates seamless communication with the browser, making web pages more responsive and engaging.

BOOTSTRAP:

A leading front-end framework streamlining web development, offering pre-designed components, responsive grids, and tools for creating visually appealing and responsive websites with ease.

<u>FIREBASE:</u>

Firebase is a comprehensive platform by Google for mobile and web app development. It offers a range of services, including real-time database, authentication, hosting, and more, simplifying the development process by providing scalable and easily deployable backend solutions.

IMPLEMENTED FEATURES:

- ➢ Proper authentication for admin to view teacher details.
- ➢ Created a simple frontend to view and perform actions to data.
- ➢ You can view, add, update, delete all the teacher information.(CRUD)
- ➢ Teacher's information such as full name, mobile number, emailid, date of birth, date of joining, number of classes taken per week, profile image, address, department are taken as input from admin and calculated age, experience, average number of classes taken per day.
- ➢ Search using name, mobile number, mailid.
- ➢ Filter using age, experience, number of classes taken per week.

CONCLUSION:

The Console-Based Teacher Management Application provides an intuitive and effective solution for managing teacher records. With features like filtering, searching, updating, and deleting teacher records, the application ensures a streamlined user experience. The file-based system guarantees data integrity and persistence, making it a reliable tool for educational institutions to manage their teaching staff efficiently. The optional feature to calculate the average number of classes adds an extra layer of functionality to enhance the overall user experience.