Criterion A: Planning

Scenario

Ms. Markuseková, my client, has too little free time, so she strives to improve her time management skills. For that reason, she uses an Android application that motivates its users to focus on their work – it lets users to plant trees with a set timer counting down time needed for the tree to grow and which will die if the application is pushed to the background or closed while the time is running. However, since it is needed to use a mobile phone in order to use the app, the use of the application contradicts its purpose. Also, the application does not offer an option to give a name to the task or to personalize the tasks at all, keep some track of them, which would be welcomed by my client. The client would like to use her microcontroller with a Wi-Fi access and an LCD display as a timer to work on her duties, but lacks a way how to communicate with it.

Solution

After the first session of discussing the problem with the client, on the second session we agreed on the following solution: ***a task organizer* web application** will be developed, featuring client's desired functions that are missing in the formerly mentioned mobile application.

As the client wanted to use her microcontroller chip (ESP8266) connected to an LCD. The microcontroller will download from internet the data about the tasks that the client provided in the web application (on the LCD will be displayed the name of the chosen task and countdown of the designated time for working on the task). Therefore, the web application will provide a page with the task data to be downloaded.

My role will be to develop an easy to understand and easily navigable web application which will enable the client to set and manage the tasks she wants to accomplish, with specified estimated time durations for the tasks. The data should be in an easily accessible form for the microcontroller. Also, the application should keep data about the completed task, so that the client can view when were they completed.

A web application is easily accessible from any place, does not need to be installed previously to use, so the client can work from any place as long as she has access to Wi-Fi. Therefore, she can use her time efficiently even outside her home or without her mobile phone.

A wholly new web application was chosen, as it will only include the functions needed by the client so that she can concentrate on her tasks.

Development

In the web application, the backend will be developed in Java, as I have experience in programming in it and therefore have the best chance of using it to the fullest I can, data will be stored using the H2 database, as it allows online persistent storage, with the frontend developed in html and Hypertext Markup Language and Cascading Style Sheets as its combination with Bootstrap framework allows for better experience when programming.

Rationale

The application will help to organize time better than a man could (will take less time to prepare a schedule based on to-do tasks) or at least will do so in less time. It will also make the client more efficient with her time than she would be without it.

Success criteria

1. A web application allows the client to manage a list of tasks in a way that the client can:
    a. add a new task: set a name and allocate specific time for the task;
    b. modify existing tasks;
    c. delete tasks.
2. The web application has a page with tasks marked for the upload listed in an appropriate form.
3. The data about the to-do-next tasks is always available on the webpage in the latest, up-to-date, version.
4. Client can see in the application on which day were done tasks marked completed.
5. The client can get a generated schedule based on her to-do tasks, desired learning session duration and with set length of breaks.
6. A manual with basic explanation and instructions is available to the client.
7. The pages in the application can be easily navigated.
8. Access to changing and displaying data client's data is restricted.