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CS 496

Due 10/11/2015

Homework 2

http://proj2-1095.appspot.com/

I decided to implement the basic interface for an application that would allow the user to quickly build and time operations in an industrial environment. The type of information saved ranges from strings representing the different procedures and studies to end and start times, used to document the time it takes for a study or procedure to be completed. Additionally, a blueprint or a final image of the project can be uploaded to each time study's personal page.

The five input controls I have used are:

- text and password(found on the view page)
- checkbox(admin page)
- image and radio(Run procedure page(edit page))

Test Cases:

- 1. Add time study with no input: No input added and message 'invalid input, please try again'
- 2. Delete time study with no input: A message "procedure not found. Deletion failed.
- 3. Add procedure with no input: No input added and message 'invalid input, please try again"
- 4. Delete procedure with no input: A message "procedure not found. Deletion failed.
- 5. Entering any combination of values into login/password results in a login.
- 6. Delete Study: Hyperlink disappears and message: "Successfully deleted"
- 7. Delete procedure: Procedure disappears and message: "Successfully deleted"
- 8. Add time study: Time study hyperlink added and message "Added time study {{study added}} to the database"
- 9. Add Procedure: Option with checkbox appears and message "Added procedure {{proc added}} to the database.
- 10. Add existing procedure: Message "Invalid value, Please try again". Nothing is added
- 11. Add existing Study: Message Invalid value, please try again". Nothing is added.
- 12. When adding an existing procedure to a time study on its personal page, it shall appear with a start and end button.
- 13. When adding an existing procedure to a time study on its personal page it will show an initial arbitrary start and end time.
- 14. If on a time studies personal page, the name should appear at the top on a green background.

- 15. The button "return to admin page" found on the personal page should return you to the admin page.
- 16. The button "return to view" on the admin page should take you to a main view page where you can see the current studies and procedures but not edit them.
- 17. When adding procedures to a study initially, these should appear already as part of the study
- 18. Upon entering the personal study page, the procedures that are aligned with a process should appear.
- 19. Upon entering the procedures page, any final design image/blueprint aligned with that project should be displayed.
- 20. Start and End buttons should redirect back to the page you are on but change the time stamps.
- 21. Results on admin page should refresh or change every time you add/remove something
- 22. Clicking on the remove radio button and then entering update should remove the image from your personal time study page.
- 23. Time stamps should appear to show Hour, Minute, and Second.
- 24. Total Time stamp should be in hours, minutes, and seconds.
- 25. Image should be centered at the bottom of personal page if it appears.

Results:

 Success 	11. Success	21. Success
2. Success	12. Success	22. Success
3. Success	13. Success	23. Success
4. Success	14. Success	24. Failure
5. Success	15. Success	25. Success
6. Success	16. Success	
7. Success	17. Success	
8. Success	18. Success	
9. Success	19. Success	
10. Success	20. Failure	

Failure: 20) The issue was caused in part during the upload and not having enough time to troubleshoot due to my shortsightedness. The blobstoreuploadHandler expects you to return a redirect while I was attempting to submit a form directly back to the same page.

Failure: 25) Well, partially. It shows blank because the time it counts is equal to 0 as both updated at the same time. Unable to show differences due partly by issues caused by failure 20. Also, dateTime.Time functionality makes it surprisingly complicated to subtract time hah!

For the most part, I used the lecture slides to become more comfortable with Python and quickly learn some basics of interacting with the google app Engine. I utilized templating on both the administrative page and each time study's personal page. The templating was mostly used to display messages depicting whether or not operations succeeded or failed. I found it critical that the user know the outcome of an operation to have better control over the app.

Much of the functionality of this project is still in work as I plan to use this for a final project. Ultimately the goal is to be able to record and collect instances of time studies done on a certain process and then view them or manipulate them separately.

One situation where I really noticed the value of templating was when having to list out the procedures specific to a time study with options to begin/end recording the time taken. Using the Jinja2 framework, I was able to dissect these values easily.

I was not able to experiment enough with the templating features. I tried, unsuccessfully, to implement functionality into my classes saved into the database in order to interact directly with the templates. This is something I plan on pursuing in the coming weeks as I refine my application. If I started over, I would also use the templating allocate resources directly to the site when changes are made. I have been looking into ways of embedding Ajax functionality into my program.

Another factor I am experimenting with is implementing sessions for different users to access the site. Using environment globals in the Jinja2 environment I can access the same variables across all templates. Given the ability to do this project again, with more experience, that is something I would take advantage of.