Remote Work Discipline App System Design

CS 3704 - Intermediate Software Design - Fall 2024

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Process Deliverable III - Extreme Programming:

The velocity for the next milestone, PM5, will be relatively high. This is the final project that we are presenting during the final presentation. This is a culmination of all of the previous milestones. I would estimate that this milestone is approximately 30 function points, to create the Black Box Test Plan, because it is challenging to come up with such a large number of distinct ideas. So far, there has been a total of approximately 90 function points between all of the milestones up to and including this one. Therefore, I would estimate that the next milestone, the final milestone, would be an additional 50 function points.

Black Box Test Plan

Test ID	Description	Expected Results	Actual Results
testAddTask (Author: Shane)	Check that a task can be added successfully. Preconditions: - User is logged in - User is on task management screen Steps: 1. Click on "Add Task" 2. Enter task details (e.g. "Submit Monthly Report" 3. Click "Save"	The task is added to the task list.	"Submit Monthly Report" appears in the task list.
testRemove	Check that a task can be	The task is no longer	"Submit Monthly

Task (Author: Shane)	removed successfully. Preconditions: - User is logged in - User has at least one task in the list Steps: 1. Select task (e.g. "Submit Monthly Report") from the list 2. Click on "Remove Task"	in the task list.	Report" does not appear in the task list.
testEditTask (Author: Shane)	Check that a task can be edited successfully. Preconditions: - User is logged in - User has at least one task in the list Steps: 1. Select task (e.g. "Submit Monthly Report") from the list 2. Click on "Edit Task" 3. Modify task details (e.g. change task name to "Prepare Report") 4. Click "Save"	The task details are updated in the task list.	Task "Submit Monthly Report" is replaced with "Prepare Report" task after being updated.
testTaskNotification (Author: Raunak)	Check that a notification is sent when a task is due. Preconditions: - User is logged in - User has a task with a due time set Steps: 1. Set a task (e.g. "Submit Monthly Report") with a due time (e.g. 2:00pm) 2. Wait until the due time	A notification is sent to the user's device with a task is due.	A notification pops up for "Submit Monthly Report" at 2:00pm.
testEnvironmentAlert (Author: Raunak)	Check that a notification is sent when the environment condition changes negatively. Preconditions:	A notification is sent to the user's device informing them of the temperature change.	A notification appears informing of the temperature change to 30°, and recommends an

	- User is logged in - Environment monitoring is enabled Steps: 1. Change the environment outside of comfortable levels (e.g. 30°) 2. Wait for the alert notification		environment change.
testProfileUpdate (Author: Raunak)	Check that profile information can be updated. Preconditions: - User is logged in - User is in the profile settings menu Steps: 1. Click on "Edit Profile" 2. Modify profile information (e.g. change email address) 3. Click "Save"	The newly updated profile information is displayed.	The profile information reappears with the updated email address.
testBreakReminder (Author: Jeriah)	Check that a break reminder is sent at the correct interval. Preconditions: - User is logged in - Break reminders are enabled Steps: 1. Set a break reminder interval (e.g. each 2 hours) 2. Wait for the specified interval	A notification is sent to the user's device recommending them to take a break.	After 2 hours of working, the notification for a break is received, recommending a break.
testPreferences (Author: Jeriah)	Check that notification preferences can be updated. Preconditions: - User is logged in - User is in the notification preferences menu	The newly updated preferences are displayed.	Notifications for breaks are disabled. After 2 hours of working, the notification for a break is not received.

	Steps: 1. Click "Edit Preferences" 2. Modify notification settings (e.g. disable break reminders) 3. Click "Save"		
testUserActivity (Author: Jeriah)	Check that the app stores data about user activity for the past hour, day, week, and year. Preconditions: - User is logged in - User has been using the app for at least an hour Steps: 1. Use the app for various activities for over an hour 2. Navigate to the activity history menu 3. Select the desired time period	The activity data for the selected time period is displayed.	User activity for the past hour is displayed correctly.
testLeaderboard (Author: Ben)	Check that the leaderboard records and displays users' points for the user's network. Preconditions: - User is logged in - User has completed at least one task - User is in network with another user - User 2 has completed at least one task Steps: 1. Navigate to the leaderboard menu 2. View the leaderboard and user ranks	The leaderboard ranks users based on points.	User that has completed more tasks in less time is ranked higher than the other, and displayed on the leaderboard.
testLogin (Author: Ben)	Check that a user can log in successfully. Precondition:	The user is logged in and directed to the main dashboard.	Test User "username" and password "password" log in successfully.

	- User has a registered account
	- User is on the login page
	
	Steps:
	  1. Enter the username and password
	  2. Click "Login"		

testTaskCo mplete (Author: Ben)	Check that a task can be marked as complete
	
	Precondition:
	  - User is logged in
	  - User has at least one task on the list
	
	Steps:
	  1. Select a task (e.g. "Submit Monthly Report") from the list.
	  2. Click "Mark as Completed"
		The task is marked as completed, and appropriate points are rewarded.	Task titled "Submit Monthly Report" is marked as complete. Points are awarded based on completion time and added to user total.