GitHub Manager Web App

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The GitHub Manager Web App will be a mobile/desktop web app that will allow users to login with their pre-existing GitHub accounts, to view, manage, and monitor changes to all of their repositories they have created. The web app will be designed using the JQuery Mobile framework to allow for compatibility on all major mobile devices, as well as be able to be displayed cleanly on desktop browsers as well. The user Github account will be accessed using the GitHub API, leveraging the node-github.js JavaScript library. The node-github.js library provides a nearly complete implementation of the GitHub API, and should allow the team to create a web app with minimal server-side code. The main functionality that the web app will provide will be more concise view of the user’s repositories, than the GitHub site currently displays, as well as the ability to create more precise SMS, and Email notifications for the various changes that are made to the user’s repositories.

The web app will be comprised of 6 main pages that will provide unique views of the user’s GitHub account, and repositories, as well as a page for notification viewing/creation. All pages will include a home, and menu button on the top header, which will navigate to the home page, and dropdown a list of the pages of the web app respectively. The home page will consist of a tile layout, with a short list of the top two most changed repositories, the 2 most recent changes to any of the repositories, as well as a list of the user’s followers. A click/touch of any of these tiles will navigate to the full page for that particular tile. The “All Issues”, and “All Pull Requests” pages will display all of the issues/pull requests that exist for all of the user’s repositories, and a click/touch of any of them will navigate to the GitHub resolution page for either the issue, or pull request. The “All Repositories Page” will list all of the user’s repositories and more information about each of them in comparison with the usual list that GitHub gives on their site. In the Mobile view the information will be displayed in a series of tiles stacked vertically, while the desktop view will be more of a tabular view of all of the repositories. A click/touch of any of the repositories titles, will navigate to the “Repository Detailed View” page. This page will list the contributors assigned to the repository, the description, readme, folder structure, #of commits, and branches, if they exist, for the repository. In addition, in the desktop view, a list of issues for the repository will be located in the left sidebar of the page, as well as a list of pull requests. Lastly, the “Notifications” page will both list the notifications that have already been created by the user, as well as provide a button for the creation of new notifications. The mobile view will navigate to a new page for the creation of the new notification, while the desktop version will open a modal dialog, of the same page, in order to create the new notification. Users will be able to select individual repositories, or all repositories to monitor for the notification, as well as individual branches of the repository if desired. In addition a variety of events to monitor will be listed such as the creation of pull requests, or issues, or new commits and merges, and possibly even if new branches are created/contributors added. The notification format will then be able to set up as Email, SMS, or both. Only the GitHub account Email(s) will be provided as options, however the phone number will be user defined.