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CS 371: Project 3

Typing Instructor Specification

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Executive Summary

To help students become more efficient in their school work by providing the best web based typing instructor possible.

Persona: Ryan

Ryan is dedicated to his studies and has a lot of homework to stay on top of, most of which is done using his computer. Every day he races to finish before his time with his girlfriend who regularly visits. Often he is unable to finish on time and homework cuts into his time with his girlfriend.

Priority 1
- Motivation - The application must embody everything Ryan wants from a typing instructor or he will not use it. Ryan has little time for things that are not directly related to his homework.
- Familiarity - Ryan must feel as though the application is one he has used before.
- Efficiency - Ryan must feel as though the application is working quickly so very little time is wasted.

Priority 2
- Learnability - Ryan must be able to quickly go from novice to expert.
- Simplicity - The mental model must be very basic so Ryan is able to understand the application quickly.

Priority 3
- Mapping - The application must present Ryan with accurate information so he is able to form a working mental model

Scenario

Ryan just got back to his apartment from his last class of the day. He takes a short break to relax, but quickly remembers all of the work he has due tonight. Once he starts he realizes that one of his assignments is a 6 page paper. He immediately gets to work on the paper since it is worth 30 percent of his grade in that class. Luckily for Ryan, he is an excellent writer, but lacks the skills necessary to type quickly on his keyboard meaning the assignment will probably take twice as long as it normally should.

Detailed Design

Onscreen Keyboard

660 x 220 px

The function of the keyboard is to provide the user with a reference point for the where the keys are. This will help prevent habits such as looking away from the screen to see where keys are on the user's physical keyboard. Each key will be similar to a button. The next letter that needs to be typed will be highlighted providing real time updates on what the user needs to type. Once the user has progressed enough they may toggle the keyboard on and off to push themselves further.

Progress Card

240 x 210 px

The progress card is meant to show the user on the homescreen how far along they are and also provide a link to either a set of lessons or something else such as a test. Information is pulled from json files that store information such as the number of lessons completed and overall user progress.

Lesson Text

jjj fff jjj fff jjj fff jjj fff jjj fff jjj fff

jjf ffj jjf ffj jjf ffj jjf ffjfjf jfj fjf jfj

fjf jfj fjf jfj

630 x 250 px

The text for each lesson is loaded from a json file once the lesson has been selected. As the user gives input from the keyboard the the keys that have been pressed change so the user can see correct and incorrect input.

Updates to the Spec

HomePage:

      I decided to forgo a more complex homepage. This design keeps everything as simple as possible with only a few basic controls. The user can navigate to the lessons through the lessons tab on the nav bar or select the next lesson for beginner or advanced from the cards that show their progress in each section. The page is built so that it resizes to fit the user's screen.
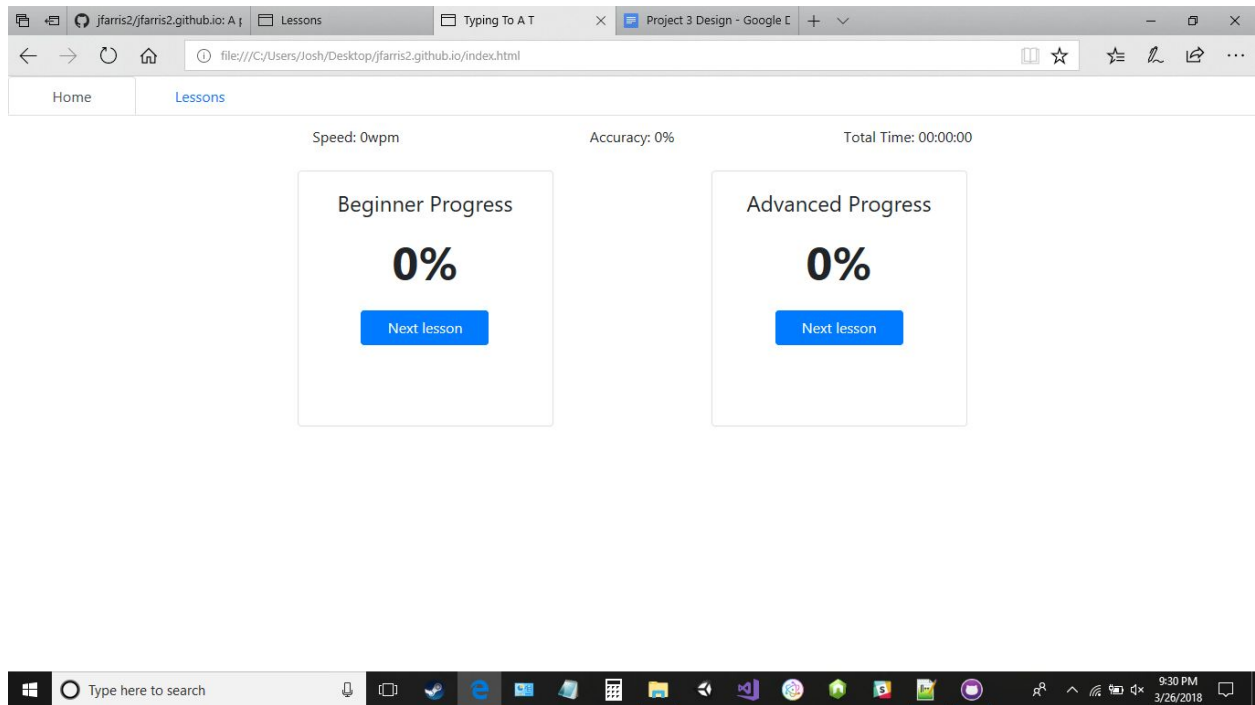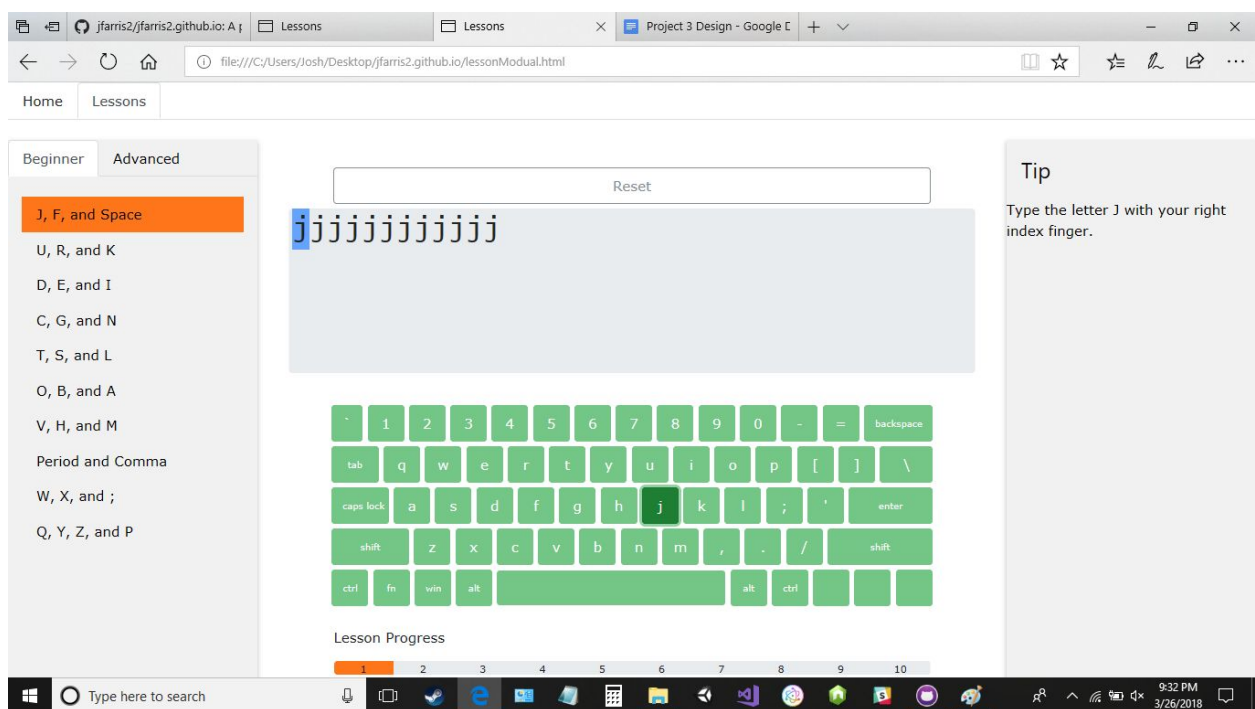
Lesson Page:

From this page the user can select the lesson they would like to start on the left. Once all 10 parts of a lesson are completed it will be highlighted yellow. If a lesson has any special instructions or tips they will be displayed on the right panel. The user can toggle between Beginner and Advanced lessons by selecting the corresponding tab.
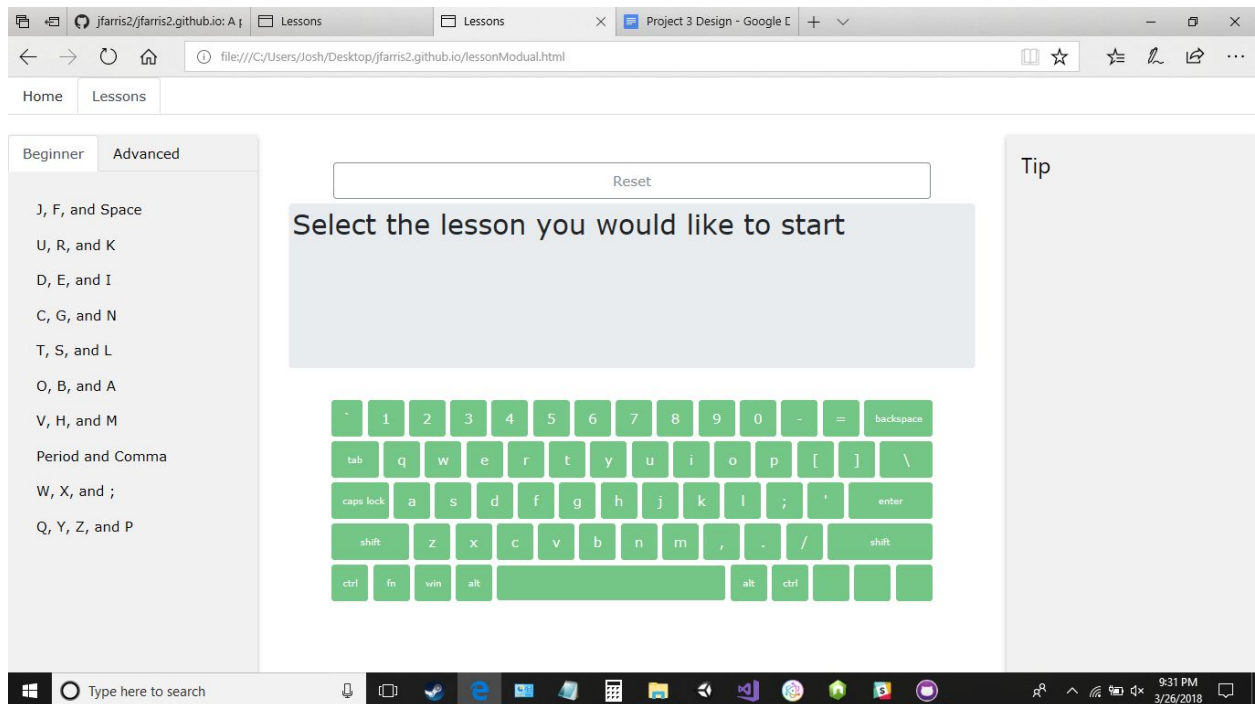
Lesson in progress:

Once a lesson has been started the text for the lesson will fill the central container. The lesson that the user is working on is highlighted in orange on the left and the part they are working on is highlighted on on the bottom. Once a part has been completed the section of the progress bar corresponding to that part will turn green. As the user types the next letter that they are working on will switch to having a blue background. Correct letters will have a green background and incorrect letters will have a red background. The keyboard displays to the user what the next key is and it's location on the keyboard. If the user wishes, they may reset the lesson at any time by selection the "Reset" button.

Results Modal:

Once the user has completed a lesson they will be shown a modal with information on how well they performed. By pressing enter or clicking the "Next Part" button the user can progress to the next lesson part. If the user selects the "X" to close the button they can either restart the lesson via the "Reset" button or go to the next part by selecting it from the progress bar.