Javier Teitelbaum, Juan Ruiz, Khalid Francis

CS608 – Algorithms & Computing Theory

Dr. Miraj

Final Project Proposal

Implementing Merge Sort and Calculating Run Time of Color Sorting by Hexadecimal

Idea Summary:

* Creating a program that sorts “N” amount of colors by hexadecimal notation. We plan on having the user select how many colors they want to select, “N”, and then they will select “N” amount of colors based on the 20 given colors. From there, the program will implement a merge sort to sort the array, will calculate the run time of the sort, and will also use a GUI to make the program more interactive. We plan on implementing an ArrayList to store the color information.

Language:

* We plan on doing our work in Javascript.

Front-end:

* We plan on breaking this down into three parts:
  + Showing selected colors
  + Visually sorting the colors
  + Show the final sorted colors

Back-end:

* We plan on making an interactive applet for the user to select their color choices through a basic GUI.
* We also plan on implementing an algorithm that will calculate the run time of the sort.