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CS 110 - Assignment #7 Part #2

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In this program, I wrote code for a visualization of eighteen patient’s sleep deprivation and correlated reaction times information. I thought that by doing this visualization it may offer some insights into sleep deprivation and overall trends for sleep deprived people. My working hypothesis was that an increasing number of days of sleep deprivation would lead to an increasing reaction time for each patient. On the contrary, there was some definite variation within my data. While the overall trend was an increasing reaction time (in ms), there were some outlying patients whose reaction times decreased in magnitude, rather than increasing as would be expected. This information simply tells the viewer that different people react differently to sleep deprivation, something that is becoming more obvious as the semester commences.

I chose a line graph with data points, since this was the easiest way to both see specific data points and overall data trends. A slope upwards would denote an increase in reaction time per day and a slope downwards would denote a decrease in reaction time per day. The line graph visually allows the reader to glance at the data and observe the trends. To do this, I designed a custom class where each constructor holds the patient’s number and information. Then, I wrote methods to fill the arrays and graph the data. Finally, I used loops and keyPressed() interactions in the main portion of my code to graph particular graphs after specific interactions. Overall, this project was the most time consuming, but also the most practical. I had some trouble with designing my class, but know that better project design skills will come with more courses and more practice.