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Computer Science

Final Project

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The Final Project we chose was to develop a jukebox system. The idea was to use a currency system and buttons to allow the paying for and selection of songs. We also allowed the user to have the ability to play and pause the song as they please. We made the gui so that it was separately divided between the songs using callback functions. The buttons that were used were toggle, push ,and slider. The toggle was used to control the play pause feature. The sliders were used to control the volume and also to change between bass and treble concentration. The push buttons were each of the respective songs. We used if then functions to create the display window that everything appeared on. The songs we chose were Mood (by Ian Dior and 24kGoldin), Wants and Needs (by Drake ft. Lil Baby), Peaches (by Justin Bieber Ft. Daniel Caesar and Giveon), and Forget Me Too (by Machine Gun Kelly Ft. Halsey). After tackling our base code we tried a few other endeavors in an effort to spice up the code. We attempted to create a disco effect upon the toggling up the play pause button, but it was much more difficult than expected. We settled for changing the background and font colors to add a little bit of flair.

Difficulties we ran were throughout the whole project. The first issue we encountered was the implementation of the button interface. We weren't sure how to use the toggle button which took a while to eventually resolve after we assigned 0 and 1 to on and off. At first we would press the button, but nothing would happen when we did. The most difficult thing was probably setting up the code so that it ran through to completion. At first we could get a pop up that would allow the button to play and pause, but nothing else would appear. It took us a while, but we had to rearrange the code so that it would run to completion. We had some trouble resetting the dollar balance at first and the machine wouldnt require any input of money. After sifting through the code a little bit the issue was just an overlooked line of code that was screwed up and thankfully was easy to resolve. Overall the project was very tedious when we built the code for each of the songs. This caused quite a few errors that were hard to identify. Creating cohesive code that did what we wanted from scratch was an interesting task compared to the labs and homeworks we are used to. The lack of direction made it difficult to really focus on the task at hand.

Graphical User Interface will definitely be a big part of my life moving forward. My group consists of two mechanical engineers, and this class certainly won’t be our only interactions with coding. Using gui as a way to make code more understandable will be a staple as we move forward. I know that personally I tend to get lost when looking at a chunk of code and try to decipher what it is doing. Gui’s allow for more visual representation that is much more simplified. By interacting with the button sliders within our code it was a lot easier not only to understand the code, but to understand whether or not it was running correctly and how we desired it to. Sometimes code can come to the intended solution, but taking the wrong path to get there and with guis it is much more difficult for that to occur.