**ISAIAH WALKER SOLO ISSUE : ISSUE 1432.**

**[advice / hints] clock on menubar?**

**This was my solo issue that I worked on over the semester up to the end of the semester here.**

**The issue in question was asked in a bit of a vague manner, but I managed to come up with a solution in 2 different ways.**

NOTE: An editable version of the prompt\_toolkit should be installed using the local version pulled from our github to be able to see the changes. To install an editable version, clone the repository and run the command **pip install -e <DIRECTORY FILE PATH>**. If the editable version is installed and a sample program importing the prompt\_toolkit is run correctly from the command line, it should look like the following:

***IMPORTANT NOTICE!: You MUST have tkinter pip installed for the clock to work properly! Also, it’s a good idea to make sure that keyboard is pip installed as well to make sure all of our other group issues and our solo issues all run properly!!!***

**First here, I managed to get a date in the menu bar on the far right. I created the menu item of “Date and Time”.**

A screenshot of a computer

Description automatically generated

**This menu item’s children are “Current Time” and “Open Clock For Date and Time”.**

**When we hover over/select over “Current Time”, we see it’s menu item child is simply the function “get\_time” (More on the functions of this program here below). This function will display the current date of the PC being ran.**

A computer screen with a white square

Description automatically generated with low confidence

**Now, I’ve done this in Day format only because Python doesn’t support an updating clock with Hours Minutes and Seconds inside a status bar, called menu bars here (You CAN display these units of time, but they won’t update, and will remain on displaying the time the program was launched through the command prompt).**

**However, I did manage to get a clock into the tab menu item here by using tkinter widgets.**

**We can hover over/select over “Open Clock For Date and Time” and then choose it.**

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**When we select it, we can get an actual updating clock!**

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**It is moving/updating of course, you’ll have to believe the picture!**

**We can then exit out of the clock widget if we wish, and then return to the clock again later if we want to using the arrow keys and tab and enter buttons on the keyboard.**

**Here’s how it’s done:**

A screen shot of a computer program

Description automatically generated with low confidence

**Create a new function open\_clock() that will activate the function return\_clock from the widgets/menus.py file.**

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Description automatically generated

**In this return\_clock function, we create an advance\_second function which sets the current time using the strftime function from the datetime/time module import, and then sets a timer that will advance the clock. Then we use tkinter to create the window and then activate advance\_second to run the clock. Finally, let’s call window.mainloop() to get the clock up and running within the tkinter widget window.**

**Now back to the test1432.py, the test file used to run the clock, we call the MenuItem class from widgets/menus.py module in order to set one of the items to “Open Clock For Date and Time”. The handler decides what will happen when this item is selected, and we set it to open\_clock as seen above. This calls the clock from widgets/menus.py and activates it in the window. Similarly, we simply call get\_time() from the widgets/menus.py module, which simply returns the current Month, Day, and Year.**

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A screen shot of a computer

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**And that’s all for my solo issue! It was difficult and I had to come up with my own interpretation on how to fix it, but it ended up working in the end.**

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