Matthew Burton

Reflective journals

SDV602

500 words each

Milestone 1:

During milestone one we were required to complete the skeleton base of the application and the storyboards depicting what the application will be, and what each interaction with the application will do.

The story boards gave this part of the design a structure and a base to follow during the design, they are a visual and logical representation of the information, what the information should do and how.

During this milestone I was introduced to Python, PySimpleGUI and matplotlib for the first time, I had planned the use of the application out and mapped navigation between each interactive screen, displaying a matplotlib graph inside of a canvas of PySimpleGUI.

Storyboards are necessary for the design as they allow the designer to logically understand what interactions will invoke what during the design process. I found that these storyboards which I created using the tool “Pencil” gave me a sense of direction for the application and a general sense of the structure of the application, what is talking to what, how, why and with what information.

I was successful in creating an application that ran through each screen and had a clean, directive design that followed the concept of a main GUI loop in PySimpleGUI, waiting on set commands of the screen from user interaction. The logic in this application was purely navigation of screens and displaying of graphs in a state machine, which switched the value of the layout chosen within a layout function, displaying a login screen that accepted any input, a main screen displaying all the interactive components of the design and the graph associated along with the picture generator of the Ukraine maps.

Milestone 2:

During milestone 2, I focused solely on the modular design of MVC patterns along with the logic manipulation of a data frame using pandas to graphically represent my data.

I had taken on the MVC design approach, with an added “common” file to hold variables that were constant across all files, however, I was not comfortable or confident with the usage of classes and fell behind on this aspect.

I implemented the necessary logic for data manipulation to receive required information from a CSV file (the price of a commodity in a region over a certain period). I did this by reading the value of the CSV and stripping the necessary information in variables regarding prices and regions. I also tracked the value of the region chosen and produced an image that highlighted the selected region.

My main problem was that I hadn’t correctly implemented the MVC design approach, and my overall design was lacking the needed class structure and ability to navigate between screens effectively. By not strictly following this process I was susceptible to inconsistencies in my design, I struggled to refresh the graph when new options were chosen and the design was able to graph these changes, just not in a professional way, or able to block out the commodities that did not apply to the selected region at the selected time.

In the future I would focus solely on using the MVC design pattern at this stage to allow for modular code and consistent logic within the design.

Milestone 3:

During this milestone, I completely restarted the design, taking on the code that our tutor (Todd) has given us to complete our design. I was able to implement the login/registration screens and begin working on the logic manipulation but fell behind during this process.

I have worked on the jsnDrop functionality and the MVC design of the application, following modular design to connect the model view and controller to each other and logically manipulate data being presented and changed.

In the future I would use the MVC design pattern much like it has been used here to improve the functionality, responsive aspects of the design and the repeatability of functions within the design of the application.