# Project ReflectionJCU_Logo_RGB for CP1404 2016 SP51 Assignment 2 – Items for Hire – GUI

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**https://github.com/adrianZahra/CP1404-A2.git**

1. How long did the entire project (assignment 2) take you?

Including an extension, the time it took to complete the project was 5 weeks.

2. What are you most satisfied with?

I am most satisfied with the fact that I was able to produce a fully working program but mainly I was most satisfied that the program was able to hire return and add items with great success. With the use of the classes handling the information and states of items was incredibly simple.

3. What are you least satisfied with?

I was least satisfied with the aspect that I wasn’t able to add as much error checking as I had liked too. The use of classes made manipulating item information easy however, due to the way the GUI handled input for classes made this difficult to make input be of a certain data structure as I found it mainly accepts text and strings; this made it difficult to handle pricing.

4. Describe your development process.

My development process consisted of a divide and conquer strategy making each function a separate task. When doing general development, I would be looking back and forward between the first assignment and the second assignment trying to find ways to adapt each function to a way that could be used with the help of classes. In the end only a few functions from the first assignment remained in a similar working fashion. When it came to arranging the GUI and how to make the buttons function I used online sources from kiviy webpage as well as the numerous tutorials from the practicals.

5. What worked well in your process?

The hiring and returning functions worked extremely well due to the aid of the classes. They made the need for list comprehension obsolete as each item has specific attributes that could be referred to directly, making the find for specific pieces of information like the name or in out status of an item incredibly simple. This helped when the function had to match the name of an items button with a name directly from an object as well as when trying to overwrite or change pieces of information as the datasets did not require any particular methods to do this. All that was required was a simple for loop to iterate through each object and a simple reference to which attribute(s) you were searching for.

6. What about your process could be improved the next time you do a project like this?

Some general improvements for next time would be to find a way to include more input handling for when users are creating new items to add to the list. Greater improvements would be to do more refactoring of the code in order to cut back on the amount of functions needed for operation. This was noticed as some functions were identical in operation (listing the in and out of stock items and changing in and out status) therefore could be merged together to create one function that could handle both sides of the input changing the concept but leaving functionality the same.

7. Describe the main challenges or obstacles you faced and how you overcame them.

My first obstacle that I had to overcome was trying to figure out how to write and fully utilize the classes and objects. With aid of the lecture slides I was able to develop the required constructs and guidance from my practical teacher I was able to properly refer to and utilize the objects.

My second obstacle I had to overcome was trying to create the hire and return functions. This issue was resolved by going through the practicals but more so through the methods of throw away prototyping. By creating throwaway code, I was able to gain understanding and decide on which types of code I could utilize to create the working functions.

8. Describe what resources you used and how you used them to help you complete this.

The resources I used where the kiviy practicals, my first assignment, lecture slide and the kiviy website. I used the functions from my first assignment to help path the way for creating the new functions for the second assignment. I made use of the kiviy website and the kiviy practicals to gain an understanding and to see a working representation of the layout and how to make the GUI buttons and widgets function. I made use of the lecture slides to help design the \_\_init\_\_ and \_\_str\_\_ constructs for my classes.

9. What were the main things that you personally learned from doing this project?

The main thing that I learnt from this project was how to effectively make use of objects and classes in my programing. After completing this assignment, it is clear to me how powerful and effective using objects and classes can be, where as in the first assignment using more conventional data sets made manipulation of the program complex and difficult to work with. With the use of the classes instead of using the traditional data sets it is now easier to create custom data sets to use how I see fit with fewer restrictions and complications.