Gunnar Crabb

CS372

1/24/2019

Final Project Writeup: Marvel Character Cache

For the final project, Jeremy Knight, Elizabeth Min, and I decided on writing and combining the various working parts of a content cache of marvel characters, which could be easily access through a convenient UI with a search bar and two search preferences. The user would type out either the name of a Marvel Universe character or a Marvel Universe event, and search by what they entered, then the program will look for a match to the user’s search, and display the info relating to the search term such as the superhero’s name, ID, and info, or the names, IDs, and info of all the superheroes involved in an event. I was in charge of designing the interface in which the user interacts with and all information is displayed, then I was tasked with linking said interface with the backend functionality of the program in order to take and output the proper info to the UI. I mainly worked in Eclipse and had the dilemma of figuring out how to convert an image URL into a compressed (always 150x150 for display purposes) and smoothed out image for the UI to display. I did this through various methods which I implemented as a function which simply calls for a URL and outputs said image. This was definitely a learning experience for me since on top of working with a window builder in eclipse, I also had to figure out how to link it completely to a background program which parsed data from a website, including linking buttons to make certain calls, link the text box to send data to the website as a search term, and take the received data and properly output it in a way that the user can easily read and access it, including a separate hidden label which displayed all the raw JSON info from the search. All of the concepts I ended up working with from class were the following:

* Java UI (worked mainly on building the UI)
* Object Oriented Programming (separate classes for certain searches link to a virtual class)
* Java Swing and Awt (advanced UI components)
* Text processing (JSON Simple toolkit for parsing the Marvel API)
* Web Programming

If there was anything we would’ve done differently or would like to expand upon, I would personally would’ve liked to make the design look a little better, perhaps more easy on the eyes rather than a boring gray window with text. I would also like to implement a way to scroll through individually fetched images from the website alongside the multiple characters when searching by event. Overall the project and presentation went great despite having a minus 1 day disadvantage.