SET09103 Coursework 2 Report

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1 Introduction

Project outline The inspiration for this web application was the party select screen featured in every pokemon game. The main reasons for this was the author's care for simple yet intuitive user interfaces in video games. Fortunately, despite facing a lack of both resources and time, a close-looking replica was foreseeably within reach. However, the training and knowledge already possessed by the author made sure that the project was yet still both interesting and challenging.

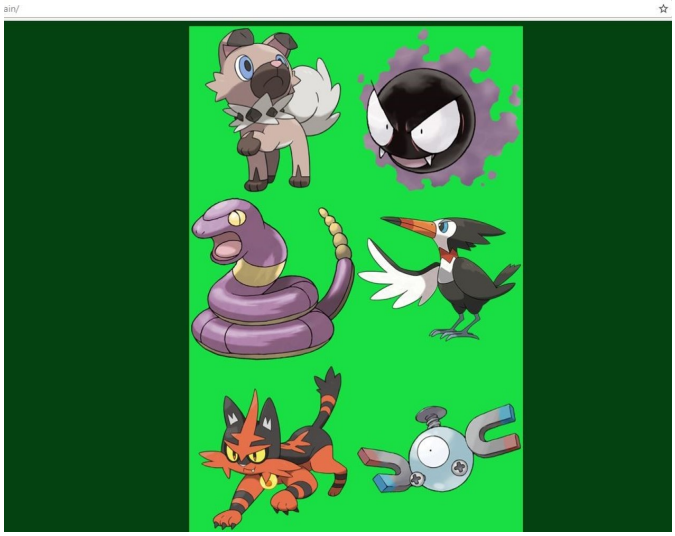

Figure 1: **Party screen** - Directory to pokemon

2 Design

2.1 Architecture

The application is structured such that running one python file starts the full application up. Only after this execution can the project be viewed in the user's browser. That same file also specifies routes to each page linked to the project. These were created with the use of templates such that the need for embedding HTML within Python code was minimalised. Each site was otherwise coded individually.

2.2 Code Listing

Below is an extract of the code used in the test.py file. The importance of this could not be overlooked as the creator. It brings together all of the different elements as well as putting the site itself online as well as hosting the site inside of the kernel.

Listing 1: (extract from) heroes.py

```
1 from flask import Flask, render_template, url_for
2 app = Flask(__name__)
3
4 #Defines route to the 'Main menu' for this project
5 @app.route('/main/')
6 def main():
7     return render_template("templates.html")
8
9 #Defines route to Ekans
10 @app.route('/ekans')
11 def ekans():
12     return render_template("ekans.html")
13
14 #Defines route to Rockruff
15 @app.route('/rockruff')
16 def rock():
17     return render_template("rockruff.html")
18
19 ...
20
21 #Puts the project online
22 if __name__ == "__main__":
23     app.run(host='0.0.0.0', debug=True)
```

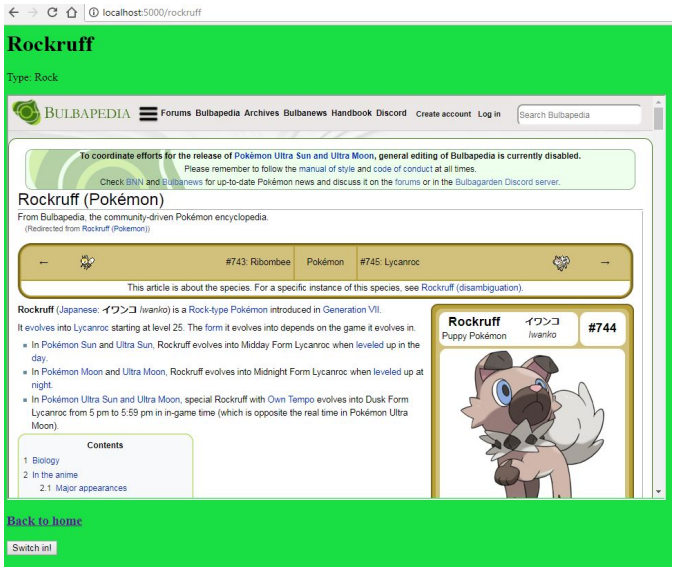

Figure 2: **Rockruff summary screen Screen** - embedded wiki page; and a button used to select the Pokemon itself for battle (in game)

3 Enhancements

Future goals for the project would include making the application run more smoothly, without having to load completely different HTML pages. Also, since a scroll bar is necessary for viewing the rest of the wiki, this complicates the UI and as such, could use a rework in the future. One possible change would be finding 'highlights' from the page and displaying them instead. For example, the important information for use in-game.

4 Critical Evaluation

The fact that the whole application is tied together all on one interface works fairly well. Not having to manually go back and forward using the browser itself is helpful for navigation also. However, the pages are otherwise fairly bare and could use some more user feedback; for instance, Images changing sizes when hovered over, possibly providing more information as it does so.

5 Personal evaluation

One of the main fields I learned about during this project was the Python language. Having not previously used it before such was a prime opportunity to become acquainted with it.

The main challenge faced was error-handling in the linux kernel used to create the actual code for the app. Error reports proved unhelpful at times, but going back and Triple-checking syntax as compared to learning resources solved most issues.

An interesting method used in writing the code was templates that combined both Python and HTML. Ultimately, this turned into more work. However, expanding the application is considerably easier since all that is needed is another HTML page.

Overall, I feel I performed well enough to meet the system specification requirements; although, given more time, a bigger and better-looking web application is well within reach.

Figure 3: **Original goal** - Layout of original party screen