SET09103 Coursework 1 Report

Fraser Rae

40201144@live.napier.ac.uk

Edinburgh Napier University - Advanced Web Technologies (SET09103)

Keywords – Napier, Advanced, Web, Technologies, set09103, Coursework1, report

1 Introduction

Project outline The inspiration for this web application was Blizzard's Overwatch Hero information site. The main reasons for this were the dynamic highlighting and selecting of each hero; combined with the sorting by hero type option on top of the screen [1] Although, due to a lack of both resources and time, a close-looking replica would be unlikely; however, the training and knowledge already possessed by the author were enough such that the technical properties were well within reach.
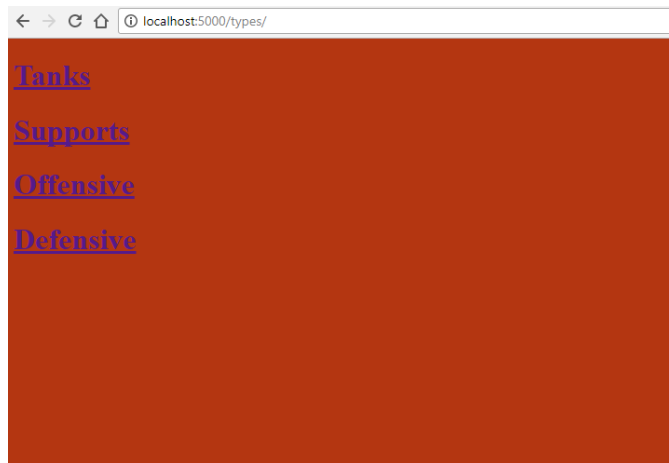

Figure 1: **Menu screen** - Directory to items in collection

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 coded individually, with the help of CSS to make formatting each page quicker and easier.

2.2 Code Listing

Below is an extract of the code used in the heroes.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, or at least hosts 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('/types/')
6 def types():
7     return render_template("typehtml.html")
8
9 #Defines the route for the page holding the 'tank heroes' ↔
       content
10 @app.route('/types/tank/')
11 def tanktest():
12     return render_template("tanks.html")
13
14 #Puts the project online
15 if __name__ == "__main__":
16     app.run(host='0.0.0.0', debug=True)
```
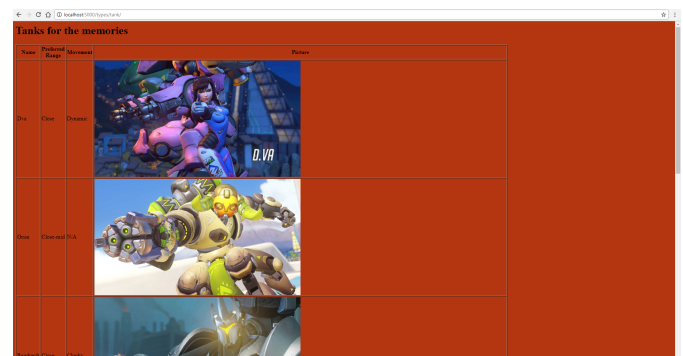

Figure 2: **Tank Types Screen** - Listed, explained and pictured heroes of the Tanking variety

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 all items in on each of the pages, this complicates the UI and as such, could use a rework in the future.

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. However, the pages are otherwise fairly bare and could use some more user feedback; for instance, Images changing sizes when hovered over, providing more information as it does so.

5   Personal evaluation

One of the main fields learned about during this project was the Python language. The author had not previously used it before, and as such this 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, the creator performed well enough to meet the system specification requirements; although, given more time, a bigger and better web application is well within reach.
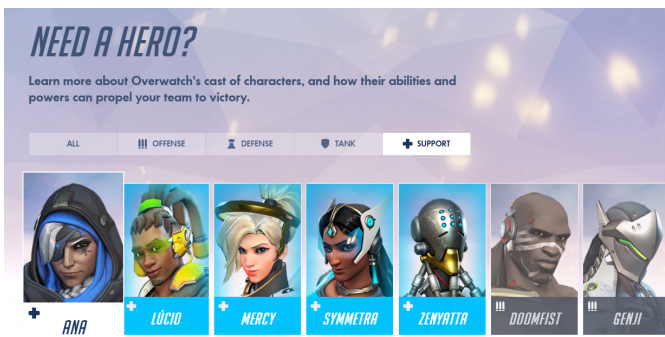

Figure 3: **Original goal** - Layout of official overwatch site

References

[1] "Blizzard, inc. overwatch heroes list." https://playoverwatch.com/en-gb/heroes/. Accessed: 2017-10-25.