

Les Miserables

Katie McNamara
40280565@live.napier.ac.uk
Edinburgh Napier University - Web Technologies (SET09103)

1 Introduction

The objective of this assignment was to use our recently gained knowledge of the Python Flask micro-framework and demonstrate this by creating a fully functional web application for an online directory, with the topic to be chosen by ourselves. Several examples of domains were given to us to highlight what we would be required in this project. Music was predominantly the best idea as there was so much that could be included alongside the usual categories such as genre and artist. Initially with this idea in my head I opted for French Pop music, something I have grown fond of over the years, however through my search to further my knowledge, a more desirable topic came to mind, the critically acclaimed musical LES MISERABLES. The Novel, turned musical, turned Academy Award winning Hollywood film was now the concrete topic of my online directory. All figures can be found in the appendices page.

The web application contains 3 crucial categories each of which is broken down further into subcategories;

1. About - Characters, Victor Hugo
2. Musical - Songs, well-known songs
3. Film - 1978, 1982, 1998, 2012

The homepage of the web application is illustrated in Figure[1]. The background image on the homepage the user is first presented with, is one of the most well known musical posters of all time so they are able to identify clearly what this application is about. Should they wish to proceed further in the site, they are able to click the menu icon where a drop-down, Figure[2] will appear presenting them with different pages within the site. However, although there is this drop-down throughout each site there is also a navigational bar for the user to interact between different pages, this is to cater to all needs as some people interact with sites in different ways.

The 'about' section, Figure[3], provides the user with a brief background of what LES MISERABLES essentially is and how it came to be. Within this paragraph there is links to other sections available in the site, for example the author, Victor Hugo, Figure[4], is mentioned but never elaborated on, if the user wished to learn more they can click on his name and they are directed to a tailored page containing all the relevant information. As well as giving the user a brief overview, they are given the option to click on characters, Figure[5], and learn more about their background and who played them in film adaptations. The about page is arguably the most important in my site as it the main component in my URL if the user wishes to learn more about the

characters or films.

The 'musical' section, Figure[6], links various pages in one also, with references to characters, songs ,Figure[7] and external sites, it also includes a trailer of this years performance in the Queens Theatre. It is independent to the about section and contains its own URL, again this will be spoken about in the next section.

Finally, the 'film' section, Figure[8], presents the user with the 4 best known film adaption posters, they are then able to click on the one they are interested in and find out who each character was portrayed by and detail about the film, ie running time etc.

2 Design

With so much information to present, the web application had to be structured in a way that would be feasible to create and simple for the user to navigate. The best way to proceed after the collection was decided, was to create the hierarchy of how the whole application would link together, Figure[9]. The hierarchy of the site begins from the root '/', it then proceeds to '/about' or '/musical', from there the user can go one or 2 ways, either to characters or film from about or musical and songs. Should the user try and go a root that doesn't exist, they will be presented with the custom designed error 404 message that was created.

By using both the drop-down menu and navigation bar on certain web- pages it gives the user different options of navigating through the site or by simply changing the URL to go directly to a page, eg if you want to go directly to the 1998 film adaptation you would type `set09103.napier.ac.uk:9158/about/film/1998'` and if you tried `set09103.napier.ac.uk:9158/about/film/1999'`, this would throw a 404 error as a 1999 film does not exist, gives the user a more enjoyable experience as they wont be unsure of where to go next and providing so many hyperlinks to other parts of the application they are able to immerse more in the collection and stay on the site longer.

The design of this web application was created entirely using HTML and CSS and small part JavaScript in order to make the drop-down menu animated. By using CSS divs it allowed certain aspects of the websites to be static on the page and only for the content in the columns to change. By not using bootstrap the site is more personalized and tailored to the collection than a standardized navigational bar/drop-down that can be found on any site on the internet. A static folder was used in Flask to organize the relevant code, this consisted of a templates folder within static to hold all HTML files and

a styles folder for all of the CSS and JavaScript. In order to ensure each character/song/film had the common theme running, Jinja was used to check if the correct name was passed and if it was would display the relevant info.

3 Enhancements

There is definite areas of this online directory that can be enhanced, however it has the basic fundamentals required to provide a relatively enjoyable user experience. An aspect that could be enhanced would be the addition of a few more pages, one being the cast of previous west end adaptations and providing the user with more information on the actors and actresses involved.

Another feature that could be incorporated would be a blog style page where users are able to upload videos or images on the performance they just watched. This tied with a login system for each user so they are able to edit a post with a new picture or go on the timeline to see any news or cast updates would make a great addition to the web application.

An area that could be added from behind the scenes would be the way the data is stored. By rebuilding the site so that JSON files were implemented it would allow the site content to be organized and stored in a more structured way. It would also allow for less discrepancies as most of the content would be organized and sorted in the same way.

Finally a feature that could be included would be and that would have been added if more time was available would be the issue of redirecting. Should a user incorrectly type a URL request in the bar, ie should be capital but is lowercase, they will be taken to the requested site regardless. This is a crucial feature and should have been implemented from the offset but will be added in future development.

4 Critical Evaluation

In relation to the scope of this assignment, the Python Flask micro-framework web application that has been developed em-compasses them all.

In keeping with the brief, no additional Python or Flask modules, libraries or even plugins were used. As stated previously, the use of bootstrap or any other design framework was not used either.

Aspects that work well in the site is the simplistic layout, each page is easy to manoeuvre between with the internal links referenced throughout the entire site. The colour scheme and background images are in keeping within the theme. With the collection that was chosen, there is enough information for it to give the user enough of an experience, ie there isn't only one or 2 pages for them to interact with. They are given a detailed background of what LES MISERABLES is as a musical and as a film adaptation.

From a user point of view, there isn't anything that works particularly poorly other than that if used on a phone despite the drop down menu and other aspects adapting to the screen size and resolution the pictures themselves don't, this

is something that does work poorly and if developed further would be a non-existent problem.

However as stated from the previous section there are enhancements that could be added to the application, nothing is rarely fully finished after the first development cycle, so although there areas of improvements there are no major flaws that disrupt the running of the online directory for the user.

5 Personal Evaluation

Upon reflection of this assignment, it is clear that various new skills were gained when developing this project. Having never previously worked with Python or Python Flask, this assignment was something new for me. After previous course works for the Web Technologies module last year I became relatively confident creating most things in HTML, CSS and JavaScript so from the design side of things in this assignment I feel this is the area I worked best in.

There was also a certain area of organisation that had to go into this assignment to make sure the hierarchy of the directory was logical and linked well together as well as having sensible URLs for each page, ie if we were talking about a certain actress to have '/AnneHathaway' rather than '/actress' as this would become more confusing the more actresses we have.

In relation to challenges in this project, I encountered various issues when using Jinja and trying to have block contents spread about so not every name needed to contain all of the HTML just the part of information that needed to be changed for each different character/song etc. Additionally, in creating the customer error page a few unfamiliar error messages popped up however after going back through the code after focusing on another aspect I was able see where it went wrong and rectify it.

Overall, I thoroughly enjoyed creating this assignment and learning more about my chosen collection, Python Flask and, after researching how to use it in the future, JSON. I hope to continue developing sites this way in the future.

6 Appendices



Figure 1: HomePage



Figure 2: Drop-down



Figure 3: About



Figure 4: Victor Hugo



Figure 5: Characters



Figure 5.1: Characters - Cosette



Figure 6: Musical

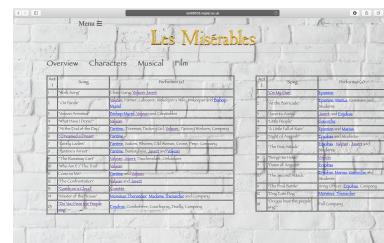


Figure 7: Song

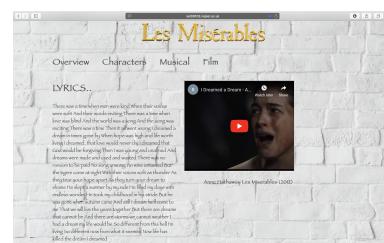


Figure 7.1: Song - I Dreamed a Dream



Figure 8: Film



Figure 8.1: Film - 1982

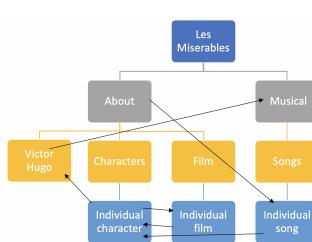


Figure 9: Hierarchy

7 References

Referencing for inspiration taken to make the site

1. <https://www.lesmis.com/london/history> 2. <https://www.lesmis.com/uk-ireland-tour>

Referencing for sites used to help build site

1. https://www.w3schools.com/html/html_tryit.asp?filename=tryhtml_table_border 2. https://www.w3schools.com/html/html_tryit.asp?filename=tryhtml_youtubeiframe

Referencing for where site content came from

1. <https://www.sparknotes.com/lit/lesmis/> 2. https://en.wikipedia.org/wiki/Les_Misérables 3. [https://en.wikipedia.org/wiki/Les_Misérables_\(musical\)](https://en.wikipedia.org/wiki/Les_Misérables_(musical))

Referencing for sites images were taken from:

1. <https://images.pexels.com/photos/1092364/pexels-photo-1092364.jpeg?cs=srgb&dl=bricks-pattern-texture-1092364.jpg&fm=jpg>
2. <https://www.clayesmore.com/wp-content/uploads/Les-Mis-1.png>
3. <https://www.lesmis.com//media/images/backgrounds/les-mis-image-flag.jpg>
4. <https://static1.squarespace.com/static/5112dd17e4b0ec824fd0821e/t/5b51a2a7aa4a99f62d2101ac/1532076725300/logo-headerHorizontal.png>
5. <https://www.polarisproductions.org/wp-content/uploads/2017/11/cosette-1.png>

Each character and film contains their own image, unfortunately they are deeply embedded within the code and far too many to reference, however all were taken from Google images directly.