Movies Galore

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Abstract

This report details the actions taken while designing and creating a web-app, along with evaluations and discussed future improvements.

1 Introduction

The aim of this assignment was to display a working knowledge and understanding of creating web applications with Python Flask by creating a prototype catalogue. The collection chosen for this catalogue was the most popular movies of 2017 to date.The web application is called 'Movies Galore'.

The web application was also created using Jinja2, HTML, CSS and Bootstrap - with the collection of data being stored and accessed via a JSON file.

This report presents the thought process, preparations and actions taken to create the application. Furthermore, there are analysis's - critical and personal - as well as possible future enhancements that may be added to improve the web application.

2 Design

T he main focus when designing the web application was efficiency, simplicity and ensuring it was intuitive.

2.1 Bootstrap

The first decision made when considering the design was to use the design framework Bootstrap. By using Bootstrap, ensuring the prototype was responsive required minimal effort. Also, structuring the layout of the pages was relatively simple, through utilizing the grid system. Other features of Bootstrap were used often throughout the design, such as a navigation bar. The navigation bar is included in each of the templates. This navigation bar displays the title of the web application, followed by each page.

2.2 Layout

The layout of the website is relatively simple.

The 'Home' page contains the navigation bar, page title and then each movie title is displayed alongside the movie poster. They are separated into 'wells'(a class in Bootstrap that adds a border and a light grey background) and three movies are displayed in each row.

The 'Genre' and 'Stars' pages both share the same templates, the only difference is the data that is being displayed. Each 'genre' or 'star' are displayed separately using Bootstraps 'wells'. Again, three are displayed per row, with each being clickable and leading to filtered results page.

Each filtered results page has a title and displays the movie title and poster contained in 'wells' in the same fashion as the 'Home' page.

'Contact Us' page has two sections - an 'About' section and a contact section. 'About' gives details about the creator of the web-app, a profile picture and a small bio. The contact section displays personal email address, github page and below that there is a feedback form.

Individual movie pages has all the details of the movie on the left hand side (with the movie title above the details) and a large movie poster on the right.

2.3 Colour Scheme

The finished prototype is dark themed. The navigation bar is dark with grey text. The body is a slightly lighter shade of grey. The 'wells' used also share the same background colours as the body and have a white border with rounded corners. The text is white throughout the web application.

2.4 URL hierarchy

Maintaining simplicity was the main focus when creating a URL hierarchy. The 'Home' page is root. From the navigation bar the user can move to the 'Genre'

page (/genre), the 'Stars' page (/stars) or the 'Contact Us' page (/contact). By selecting a genre or star, the user is then directed to a movie page with filtered results. These either have the 'genre' or 'stars' name as the URL(/genre/⟨genre⟩ or /stars/⟨star⟩). From there, the user can select a movie. When a movie is selected the user is redirected to the individual page which is the root followed by the movie title (/⟨movie⟩). Within the movie page, the user can click on any of the stars or the directors name to be redirected to the Wikipedia page on that particular person.

3 Enhancements

There are several enhancements that could be made to improve the web application. The most effective would be to find a more appealing colour scheme. Currently, the dark theme looks acceptable, but with a brighter scheme with colours that work well together, the appearance would greatly improve. Many different colour schemes from different palette websites were tested, but did not work well together with the layout of this web application.

A search bar would also greatly improve the functionality of the web application. Placed within the navigation bar, the user could then search for movies, genres, directors or actors. This would be much more efficient than having to manually search for the element they wish to filter by.

Improvements to the feedback form are desperately needed. Currently, there is no validation added and the user has the ability to add anything to any three of the text boxes before submitting. Furthermore, having a log in system would improve the feedback section and reduce the chances of users abusing the system.

Adding a carousel feature to the main page would enhance the overall appearance by making it look less bare and more professional. The carousel would be a large banner directly below the navigation bar, displaying a movie image with text in the middle (a short review or slogan). Either side of the banner would have an arrow enabling the user to step to the next banner. If they were to click on the banner, it would redirect them to the specific movie page that was being displayed on the carousel. This feature is simple to implement with 'Bootstrap' and would make a significant improvement.

Lastly, implementing a rating system and a comment section for each movie would enhance the users experience. By adding this feature, users can share opinions and discuss movies, which would more likely increase the chances of users returning to the web application.

4 Critical Analysis

The functionality of the web application is fairly good. The main problem is the application is lacking features. With more data it would look a great deal better.

The worst feature is feedback section. It was poorly planned was and added quite late to the project. The main reason for the feedback form was simply to add a feature that demonstrated an understanding of working with the 'POST' method. Initially, this feature was intended to be a guest-book or discussion page where users could submit comments, which would then be displayed on the page - enabling users to not only interact with the web application, but other users. As time was an issue, this feature transformed into a more simple feedback form that saves the users input into a JSON file.

The appearance of the website is very basic - 'Home' page especially. Adding more features to the 'Home' page and improving the current layout is desperately needed. Being the first page that the user views, it should be more aesthetically pleasing.

With a small sample data set, the filtering by 'stars' feature works well. Once the data begins to increase, and the amount of 'stars' increases massively, having them all displayed in a single list will become a problem. Splitting the stars into alphabetic groups would make filtering by stars more efficient.

Overall, the web application functions adequately. The user has the ability browse movies with ease, filter by genre or by actors - which all work well. The two main issue are a lack of features and the appearance. In it's current state, the prototype works well and with the earlier mentioned enhancements added, it has the potential to be good.

5 Personal Analysis

This project proved to be quite testing due to the introduction to many new tools. Initially, the main worry was trying to get familiar with Python, Flask and Jinja with no prior experience. This happened to be relatively easy and there were no problems working with them.

The actual challenges arose from a lack of planning and designing before beginning to implement features. Having never worked with Flask and having limited experience with manipulating JSON files, practicing seems the practical choice. The planning stage was almost non-existent and a great deal of the features were added as an afterthought. This clearly shows when viewing the web application. With more preparation and planning, the whole project would have run smoother and the end result would most likely have been a great deal better.

Overall, due to the lack of planning, the whole process was more difficult than it should have been. This was a learning curve and will be taken on board on all future projects. Although, the lack of planning hindered the process, the end result is not as poor as would have been expected and the experience gained from working on this project was extremely useful.