Anime Streaming Website

Project Overview

The Anime Streaming Website is a platform designed to stream anime series and movies to users. The website is built using Angular, a popular front-end JavaScript framework for building dynamic, single-page applications. It provides users with a rich experience, including features like searching for anime, viewing episodes, rating content, and interacting with other users. This project focuses on creating a user-friendly, interactive, and responsive platform where users can browse through a collection of anime, filter by genres, and watch their favorite shows in high quality.

Objectives

- Anime Data Collection via Web Scraping:
  - Use web scraping techniques to fetch anime details, including titles, descriptions, episodes, and images, from popular anime websites to populate the platform.
- Responsive User Interface:
  - Design a responsive and user-friendly UI using Angular, ensuring users can seamlessly browse anime, view episodes, and search content across various devices.
- Stream Anime Directly:
  - Implement an integrated video player that allows users to stream anime episodes directly on the website without the need for third-party platforms.
- Anime Search and Filter Functionality:
  - Provide a robust search feature that allows users to search anime by title, genre, or popularity, using data fetched via web scraping.
- User Interaction & Profile Management:
  - Enable user registration, login, and profile management to personalize the anime-watching experience, such as maintaining a watchlist and rating shows.

Benefits

Automated Content Collection:

- Web scraping automates the process of gathering anime data, ensuring that the platform has up-to-date and comprehensive content without manual input.

Enhanced User Experience:

- Angular provides a dynamic and fast-loading interface that ensures a smooth browsing experience, with instant content updates and navigation.

Customizable Content:

- Users can filter content based on their preferences (e.g., by genre or popularity), making it easier to discover new anime.

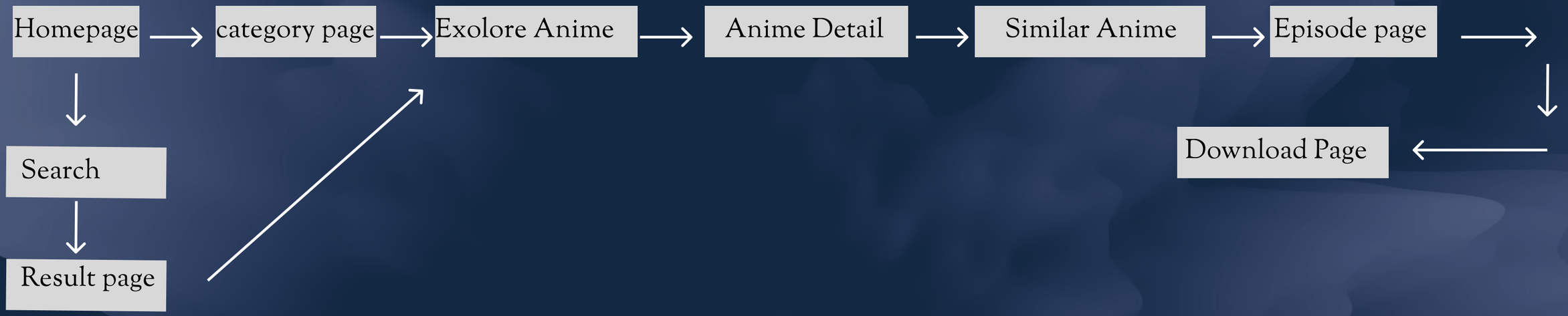
Easy Access to High-Quality Streaming:

- Direct video streaming capabilities allow users to enjoy anime episodes in high quality, providing an all-in-one platform.

Community Engagement & Personalization:

- Users can rate, review, and interact with anime content, creating a more engaging and personalized experience for each user.

Architecture



Authentication

No authentication required

User Stories

- As a user, I want to browse anime titles, so that I can discover and choose shows to watch.
  - This user story ensures that users can easily navigate and view the anime content available on the platform, with a simple and intuitive interface.
- As a user, I want to search for anime by title or genre, so that I can quickly find content that matches my preferences.
  - Users can use the search feature to filter and locate specific anime series, making the browsing experience more efficient and personalized.
- As a user, I want to stream anime episodes directly from the website, so that I can watch shows without leaving the platform.
  - This user story focuses on the core functionality of providing an integrated video player for seamless streaming of anime content.
- As a user, I want to create a watchlist, so that I can save anime shows and continue watching them later.
  - This feature allows users to personalize their experience by keeping track of the anime they are interested in and returning to them later.
- As a user, I want to read descriptions, reviews, and ratings of anime shows, so that I can make informed decisions before watching.
  - This ensures that users can access important information about the anime shows, such as ratings and descriptions, to help them decide what to watch next.

Implementation Plan

1. Research Phase:
   - Objective: Understand the technical requirements and gather data for web scraping.
   - Research available APIs and popular anime websites for scraping content (e.g., MyAnimeList, 9anime).
   - Study Angular for building the front-end, focusing on responsive design, routing, and integrating third-party video players for streaming.
2. Development Phase:
   - Frontend (Angular): Develop the user interface, including components for the homepage, search bar, anime details page, and video player.
   - Backend (Web Scraping): Implement web scraping using tools like Python (BeautifulSoup, Selenium) to extract anime details, such as titles, episodes, and descriptions, from various anime websites.
   - Streaming Integration: Set up a media player (e.g., HTML5 video player) that can stream anime content from local or external sources, ensuring smooth playback.
   - Testing Phase:
     - Unit Testing: Write unit tests for Angular components using Jasmine/Karma to ensure proper functionality of features like search, navigation, and streaming.
     - Integration Testing: Test the integration between the frontend (Angular) and backend (scraped data) to ensure correct display and streaming of anime.
     - User Acceptance Testing (UAT): Perform UAT with real users to ensure that the platform is intuitive and functions as expected, from browsing to streaming content.

Timeline

Phase	Duration
Research & Design	1 weeks
Development	3 weeks
Testing	1 day
Deployment	1 day

Conclusion

The anime streaming website project built with Angular and web scraping offers a comprehensive platform for discovering and streaming anime. By utilizing web scraping, the site automates the process of fetching up-to-date anime content, providing users with an extensive library. Angular's dynamic interface ensures a smooth and responsive browsing experience, while integrated video streaming allows users to watch their favorite shows without leaving the platform. The combination of personalized features, such as search and watchlists, enhances user engagement. Overall, this project successfully combines cutting-edge technologies to deliver a seamless anime-watching experience.