

# **ANGULAR – HANDS ON FILM COLLECTION WEBSITE**

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# INTRODUCTION

- The Film Collection Website serves users with an Angular application that enables convenient viewing and creation of a film collection while offering simple management features.
- This project integrates the Angular dynamic capabilities together with Bootstrap responsive design elements while utilizing JSON Server to emulate backend API functions.
- The main purpose of this application showcases Angular's capability to merge various features including components, services, routing and data binding in order to build an interactive and visually compelling web application.



# APPLICATION OVERVIEW

- Users can explore a film list through the Film Collection Website which supports detailed film information display alongside new film database entries.
- The application contains different screens that combine a home page for summaries along with a film list page to display all listings and an add film page that allows users to insert information through form interactions.
- The website implements Angular for its development alongside modern front-end practices like modular design that leads to both scalable and maintainable system.

# KEY FEATURES

- The application uses Bootstrap to create its responsive system which lets users access the content using any device.
- Users can see a complete directory of films displaying their title as well as director listing release year along with poster content.
- Users can dynamically verify their input through a form which also enables them to add new films to the database.
- JSON Server supplies simulated backend data to the application which uses API mechanisms to retrieve and store implementation data for maintaining platform data consistency.



# APPLICATION WORKFLOW

- The workflow begins with users landing on the home page, which introduces the application. From there, users can navigate to the film list page to view all films.
- Angular's `HttpClientModule` fetches the film data from the JSON Server via a GET request, and the `FilmListComponent` dynamically renders the films using Angular's `*ngFor` directive.
- Users can then proceed to the add film page to submit details for a new film. Here, Angular's two-way data binding (`[(ngModel)]`) ensures real-time updates to the form data, and the form submission is handled via an HTTP POST request to the backend, saving the new film to the database.

# ANGULAR CONCEPTS USED

- Key Angular concepts utilized in this project include components, services, routing, directives, and data binding.
- Components such as `FilmListComponent` and `FilmItemComponent` are used for modular development, enabling code reusability and clarity.
- Services like `FilmService` centralize HTTP requests for efficient data management.
- Routing is handled by `RouterModule`, defining paths for navigation between the home, film list, and add film pages. Structural directives like `*ngFor` and `*ngIf` facilitate dynamic content rendering.
- while two-way data binding (`[(ngModel)]`) ensures real-time interaction with form inputs.



# USER FLOW

- The user flow begins with navigating the home page for an overview of the platform.
- Users can proceed to the film list page to view all available films.
- Angular's HttpClient fetches the data, and it is dynamically displayed using reusable components.
- On the add film page, users can fill out a form to submit new film details.
- Angular validates the form inputs in real-time and submits the data to the JSON Server, ensuring that the data is updated in the backend.

# TOOLS AND LIBRARIES

- This project utilizes Angular as the primary framework for building a dynamic and responsive front-end.
- Bootstrap is integrated for styling and responsive design, ensuring that the website looks great across all devices.
- JSON Server is used as a lightweight backend to simulate RESTful APIs, facilitating efficient development without the need for a fully-fledged database.
- The Angular HttpClientModule ensures seamless communication between the front-end and backend.



# CONCLUSION

- The Film Collection Website is a practical demonstration of Angular's capabilities, showcasing core concepts such as components, services, routing, and directives.
- The application is designed with scalability, modularity, and user-friendliness in mind.
- By integrating Bootstrap for styling and JSON Server for backend simulation, the project highlights a complete workflow from design to implementation.
- Potential improvements include adding features like editing and deleting films, integrating authentication, and migrating to a live backend for production use.