# Web-based application

## Project requirements

### Background

A movie fan club wanted to create a website where users can review and rate movies so other people can find movies they like and read reviews of what others think of them.

The website needs to have a clean interface incorporating common standard UI elements typically found on modern websites.

### Problem statement

You have been tasked with the development of this web-based application.

It is expected that the tasks involved will follow the software development lifecycle including requirements gathering, design, build and testing phases.

### Functional requirements

The website needs to provide the following functionality:

1. Sign-up for an account
2. Sign-in to an account
3. Browse the movies available.
4. Search for a movie
5. Detail view of a movie
6. Add a star rating out of 5 for a movie
7. Write a simple review a movie
8. Log-out.

Additional details on these requirements are included below

| Functionality | Description | Related Data |
| --- | --- | --- |
| Signup | Create a new user in the system | * Username * Email address * Password |
| Login | Authenticate member | * Email address (Member username) * Password |
| Browse available movies | Provide functions to browse available movies | For each movie in the listing page, display the following details:   * Poster (image) * title * Category / Genre |
| View a movie detail | Display a single movie in the interface | For each movie display the following details:   * Poster image * Title * Director / Creator * Producer * Category / Genre * IMDB link * Main actors * A simple synopsis |
| Review a movie | Provide a function to write a review of a movie, available only to authenticated users | The account holder should be able to:   * Write a review title * Write a review body * Review a movie only once |
| Display reviews | Display the reviews for the movie on the same page as the movie (single view) | Display all reviews of the movie |
| Rate a movie | Provide functions to rate a movie, available only to account holders (authenticated) | Facilitate the user's ability to add a star rating for a movie out of 5. |

### Non-functional Requirements

The following non-functional requirements have been identified:

#### User-Interface

The system should utilize responsive design to be compatibility with a range of devices such as smartphones and laptops. The user-interface should be clean, professional look and feel typical of modern web applications utilizing a UI framework nominated with organizational requirements.

#### Sign-up

All fields listed for the sign-up function are mandatory. All fields should be validated prior to submission and user creation including:

1. Email address is not already in the system.
2. Password is more than 8 characters long.
3. Password is not entirely made up of numbers.

Any errors are to be reported as errors so that corrections can be made.

A new user is to be created as a member.

#### Login

System is to utilize a single sign-on location for all users.

#### Movie details

All fields listed for movie functionality mandatory. All fields should be validated prior to editing submission including:

1. Title contains alpha characters
2. Director / Creator is not empty
3. Producer has alpha numeric characters
4. Category / Genre has been selected
5. IMDB link is a URL that begins with “https://”
6. Main actors contains at least one actor

### Data requirements

All data for the web-based is to be stored in the database and images are to be stored in the Storage bucket