

Project Overview:

The aim of the project is design and develop a database driven tool that will allow users to look up information about movies including their title, overview, genre, release date, runtime, budget, revenue generated. Information about the films' cast and crew should also be available. The tool should allow the user to filter the displayed information based on the above information.

A freely available dataset (available at: <https://www.kaggle.com/rounakbanik/the-movies-dataset>) can be used to acquire the raw data. You will need to examine this dataset and create a suitable database in order to import and store this data. You will need to decide if a relational database management system (e.g. MySQL or Oracle) or a NoSQL system (such as MongoDB) will be the most appropriate type of database. If a relational database is chosen, an Entity Relationship Diagram (ERD) should be produced to document this design. Note that the data may need to be cleaned or manipulated to make it suitable for your design.

You will then develop a web-based front-end in the language(s) of your choice that will allow users to browse this data in a user-friendly manner and satisfy the requirements below.

Requirements of the Tool:

Users should be able to:

- Browse information on movies and be able to filter the data to show:
 - Films falling into one or more selected genres (e.g. 'Action' and 'Adventure').
 - Films released in selected years.
 - Films with a budget within a selected range
 - Films which generated revenue within a selected range
 - Films starring selected actors
 - Films directed by a selected director
- Search for a specific film title, actor or director.

Additional Requirements

- The information should be presented as clearly as possible, so the use of drop-down/expanding sections could be considered.
- The performance of the system should be considered and the data transfer between the front-end interface and back-end database should be as efficient as possible. Only sending data that is required and/or minimising the number database queries should be considered during the design and development.