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| Movie Database |
| CS 405 Final Project Report |

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# (1) Database Design

Underline: primary attribute

*Italics*: multiple-value attribute

**Entity: MOVIE**

Attributes(s):

release\_date

title

description

movie\_id

duration

language

*keyword*

*genre*

Relationship(s):

RATED BY: USER

HAS: MOVIE\_CREW

**Entity: CREW**

Attribute(s):

crew\_id

first\_name

middle\_name

last\_name

Relationship(s):

HAS: MOVIE

**Entity: USER**

Attribute(s):

first\_name

middle\_name

last\_name

gender

dob (date of birth)

type

user\_id

password

Relationship(s):

RATES: MOVIE

**Relationship: ROLES**

Attribute(s):

*role*

Relates:

movie <-> crew

**Relationship: RATING**

Attribute(s):

value

review

wanted (yes/no)

Relates:

user <-> movie

## Database Assumptions

* All users may rate, review, and save more than one movie. All movies may be rated, reviewed, or saved by more than one user.
* Users and crew are different; crew *will not* be linked to users.
* Each movie may have only one language.
* Middle names may be NULL (blank).
* Value and review may be left NULL (blank).
* Duration must be a value greater than 0.
* Value is 0 or 1, where 0 is thumbs down and 1 is thumbs up.
* Wanted is whether the movie is saved to a watch-list. Value is 0 (no) by default.
* Gender: (M)ale, (F)emale, (O)ther

## ER Diagram

## Database Schema

MOVIE()

CREW()

USER()

ROLES()

RATING()

# (2) Web Site

## Functionalities

### Add/Remove Users

### Add/Remove Movies

### Search

## Additional Functionalities

### Watch list

### You Should Watch…

# (3) Testing

# (4) Contribution

## Dean Crockett: Frontend Web interface

Dean designed the front-end web application interface using HTML and CSS. The app employed Bootstrap for proper scaling on mobile devices, as well as a modern UI. It also used JavaScript functions for actions such as displaying the user’s name and film preferences.

## Jacob Pawlak: Backend

Jacob constructed the backend database. Using both PHP and MySQL, he defined the creation statements for the foundation of our database, as well as program the more intricate functionality for our site such as aggregate functions.

## Nick ReAves: Frontend/Backend collaboration

Nick acted as liaison between Dean’s frontend web interface and Jacob’s backend code. He worked with both partners to ensure that the proposed functionality was possible with Jacob’s implementation, and assisted Jacob in building the database with Dean’s design. He also helped both partners with additional tasks, such as programming specific functions on the site.

## Connor VanMeter: Database Design, Project Reporting

Connor took the lead on constructing our database schema. With the team’s input, he designed our databases various entities, and described their attributes and relationships. He also formatted our assumptions, and drew an ER Diagram illustrating the database. Connor also performed quality control for the web-application and created the final report.

# (5) Experiences and Challenges