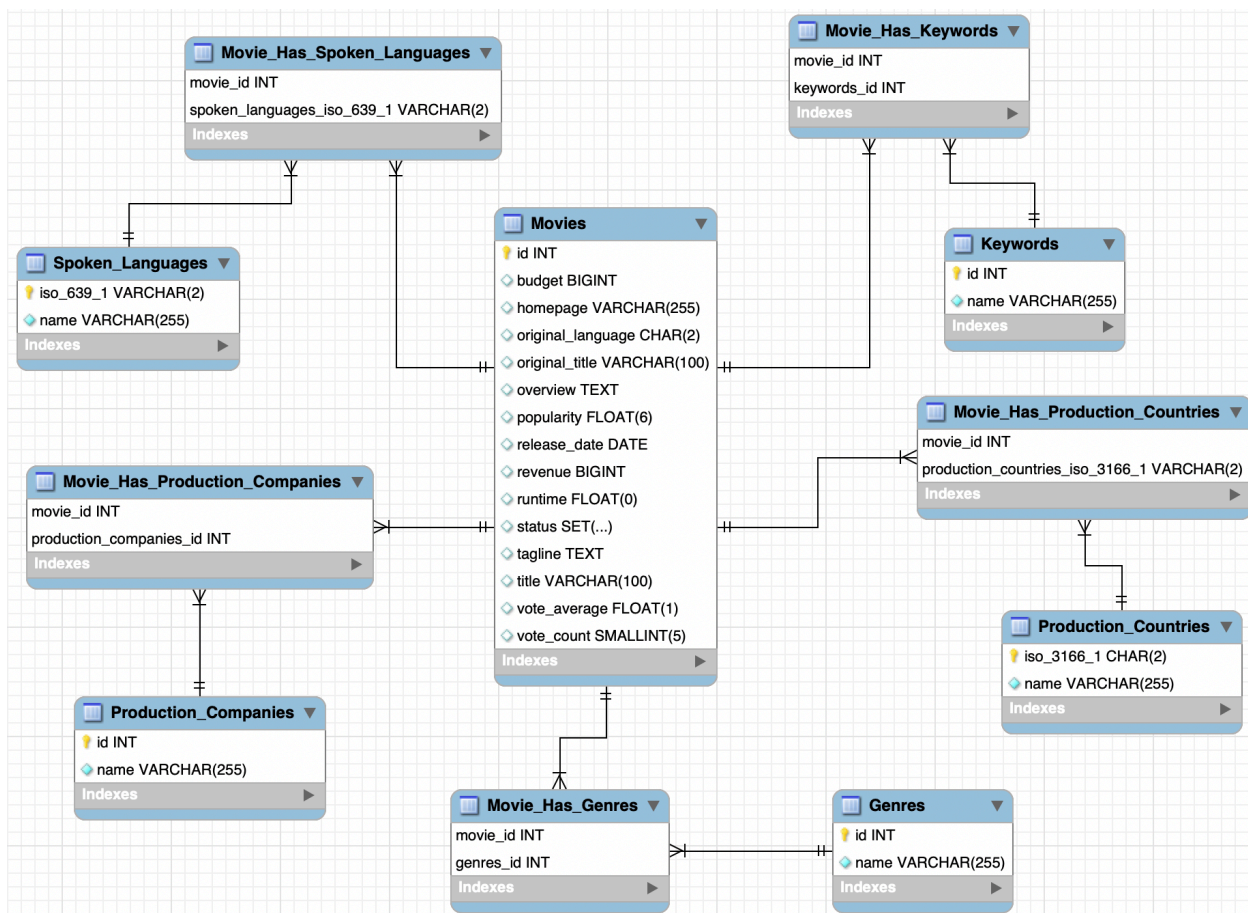


## CS 351 - Assignment 5 Report

### Part 1:

The only file included is my “pythonDB.py” file. This program builds 11 tables that create the schema for the IMDB database. The schema is in second normal form where any attribute for a movie containing more than one entry has its own table with an attribute id and attribute name. Then the Movies table has any attributes that are single values. the 5 other tables are join tables containing a movie id and an attribute id number. The program then inserts data from a CSV file into each table. The schema is in second normal form because if a genre or spoken language is removed, it will be removed from the join table, but the Movie with that attribute is not removed or dependent on that specific attribute.

For the relationships see diagram below:



## Part 2 - Queries:

1. What is the average budget of all movies? Your output should include just the average budget value.

```
+-----+  
| budget |  
+-----+  
| 29045039.8753 |  
+-----+
```

Show only the movies that were produced in the United States. Your output must include the movie title and the production company name.

```
+-----+-----+  
| Movies_title | Production_Companies_name |  
+-----+-----+  
| Four Rooms  | Miramax Films              |  
| Four Rooms  | A Band Apart               |  
| Star Wars   | Lucasfilm                  |  
| Star Wars   | Twentieth Century Fox Film Corporation |  
| Finding Nemo | Pixar Animation Studios    |  
+-----+-----+
```

3. Show the top 5 movies that made the most revenue. Your output must include the movie title and how much revenue it brought in.

```
+-----+-----+  
| title        | revenue |  
+-----+-----+  
| Avatar       | 2787965087 |  
| Titanic      | 1845034188 |  
| The Avengers | 1519557910 |  
| Jurassic World | 1513528810 |  
| Furious 7    | 1506249360 |  
+-----+-----+
```

4. What movies have both the genre Science Fiction and Mystery. Your output must include the movie title and all genres associated with that genre.

Movies_title	Genres_name
2001: A Space Odyssey	Adventure
2001: A Space Odyssey	Science Fiction
2001: A Space Odyssey	Mystery
Atlas Shrugged Part II	Science Fiction
Atlas Shrugged Part II	Drama

5. Find the movies that have a popularity greater than the average popularity. Your output must include the movie title and their popularity.

title	popularity
The Faculty	21.54
Doomsday	21.54
Spy Kids	21.54
Almost Famous	21.55
The Tuxedo	21.55