CS3563: DBMS II

Assignment 1
Prof. Manohar Kaul

February 26, 2021

Design ER diagrams for IMDb website

Design an ER Diagram for IMDb website with the referential integrity being maintained.

1. The movie/tv-series/episode entity has information such as ID, original title and titles in other languages, certificate(U/UA etc), regions,countries released in, languages of release, run time, release date, genre, plot outline, production companies.

2. TV-series are associated with episodes and vice versa.

3. TV-series have running status associated with them (ongoing/completed).

4. The movie ID field cannot be left blank.

5. Movie/tv-series/episodes can be produced by multiple production companies.

6. They can have different release dates in different countries.

7. Users rate the movies/tv-series/episodes on a scale of 10.

8. Cast is associated with their name, movies they have acted in, languages they have acted in etc.

9. Runtime of movies/tv-series vary with different countries, they are released in.

10. Movies/tv-series can have websites, they can be watched at.

11. They can be associated with different genres.

12. A movie/TV series may be filmed at different locations.

13. A TV series will have ratings for each episode.

14. A movie may require different certifications in different countries.

15. A movie/TV series will have Parental Guide rating associated with it. A TV series may have multiple Parental Guide rating (for each episode / season).

16. A movie/TV series may have multiple directors associated with them.

17. A TV series may have different casts and directors for each episode/season.

18. Casts may have awards/accolades/nominations associated with them.

19. Some person can be part of mulitple movies/TV series.

20. A director has his record of movies directed, movie making budget, box offixe gross, etc.

21. A movie/TV series may have multiple soundtracks produced by different people.

22. A movie may win an award or some person associated with it may win an award or every person may win an award for one movie.

23. A movie may or may not contain anti social elements(drinking, public nuisance etc.)

24. Different technicians are associated in the filmmaking process such as directors, asst. directors, actors, actresses, music directors, etc

25. Each TV episode may have a different crew associated with it.

26. Each TV episode may have different rating.

27. Each productions company may have multiple movies / TV series associated with them.

28. Each movie will have information about its budget, its box office collection.

29. A movie may be released under different name in different countries.

Please Note:
You need not restrict your ER Diagram to the entities and attributes described here alone. You are encouraged to have an exhaustive ER diagram. Please ensure you have designed your ER diagram maintaining all the required constraints. Also, the dataset provided doesnt contain all the data required, you will have to crawl the data that is unavailable, when needed for Assignment 2.
If you feel the need to explain anything, use the label option in ERDPlus to add notes. However, explaining the relationships used along with the mapping is mandatory.
Once your ER Diagram is complete, you need to find the minimum number of database tables required for the same. You have to justify your answer.

Submissions:
Please use the website https://erdplus.com for creating the ER diagram. The functioning is pretty straight-forward. You need to create an account in order to save your progress. Please only submit the final diagram.