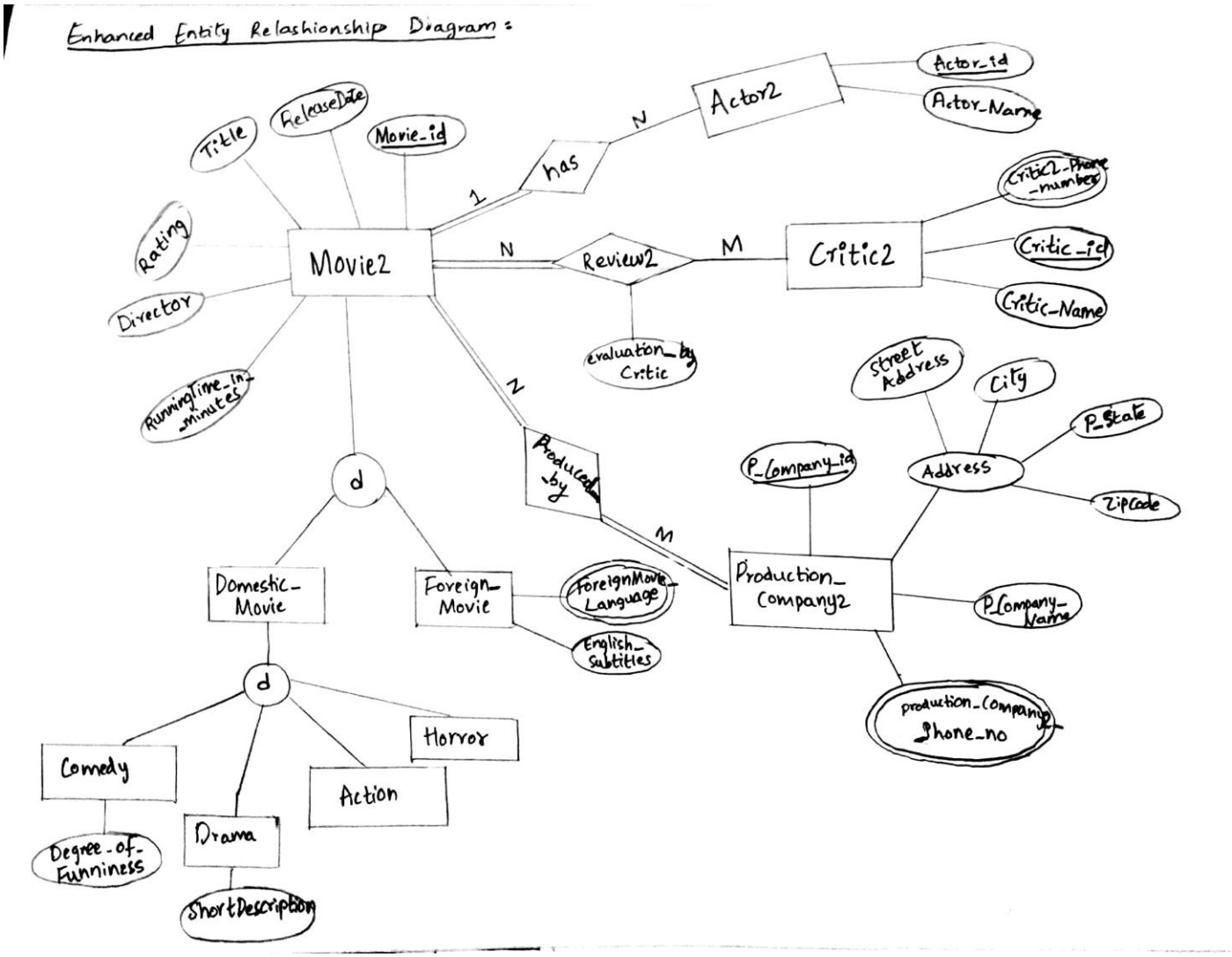
CS 504-DL2/DL3 Spring 2021 Project 1

Part 1: EER Diagram

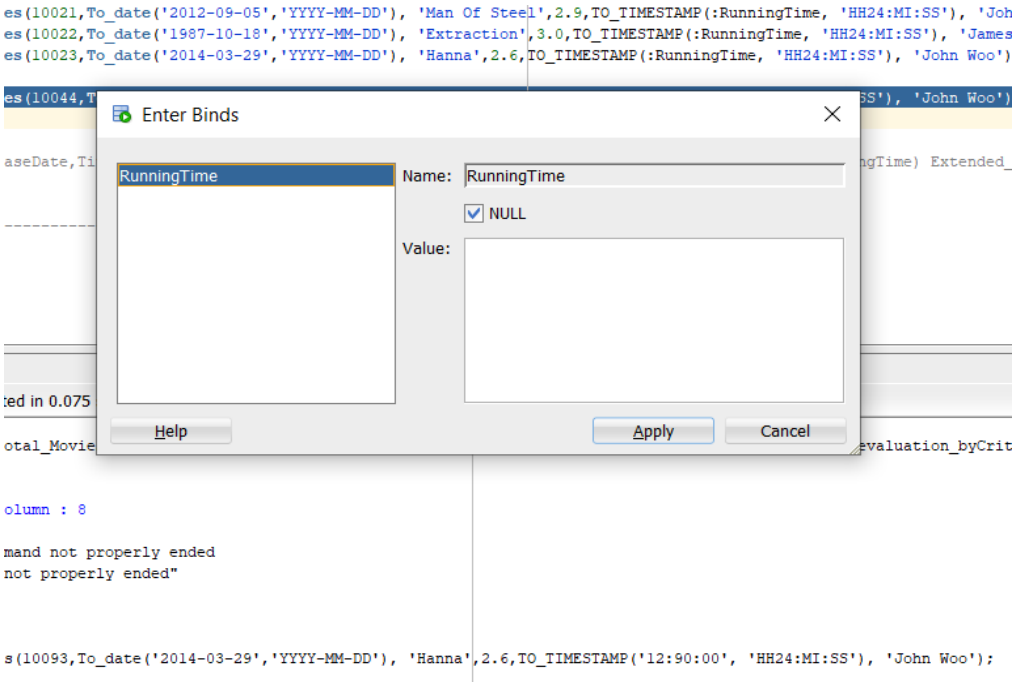


Assumption Made:

1. Sometimes, Movie title can be same for two movies, so an assumed attribute Movie_id is taken as the primary key for the Movie2 Entity Set
2. According to the design specification, a movie has one or more actors, so created an entity set called Actor2 and assumed its attributes to be Actor_id (primary key) and Actor_Name to identify the actors.
3. Critic only has Name and Phone Number as the attributes, so to uniquely identify a critic, an attribute Critic_id is assumed to be the primary key for Critic2 Entity Set
4. Sometimes, Production Company Name can be same for two different Companies(like same name but their color, style of their logo or Company Name may be different, so an assumed attribute P_Company_id is taken as the primary key for the Production_Company2 Entity Set
5. Assumed RunTime of a movie in minutes with float value, because when used timestamp for runtime we can extract hours, minutes andseconds, but each time we insert new timestamp sql developer asks to enter the time stamp values in a new window called Binds. And when we try to run the entire script for creating the log file, it shows an error called ‘Bind variable

not declared' and values are not inserted into the movie2 table. So I have changed the runtime to float and gave the runtime in minutes directly into the insert statement.

When time stamp is used: (each time the below window pops up)
insert into Movie2 values(10023,To_date('2014-03-29','YYYY-MM-DD'),
'Hanna',2.6,TO_TIMESTAMP(:RunningTime, 'HH24:MI:SS'), 'John Woo');



When we run the entire script to create a log file, this window isn't popping up to enter the runtime. So I have taken runtime in minutes with float data type and inserted the float values directly.

Part 2: Relation Schema

a. Relation Name: Movie2
   1. Attribute Names: Movie_id, ReleaseDate, Title, Rating, RunningTime_in_minutes, Director
   2. Domain of each Attribute: Movie_id - integer, ReleaseDate - date , Title – Varchar(String) , Rating - float , RunningTime_in_minutes - float , Director- Varchar
   3. Primary Key : Movie_id
   4. Foreign Key : No Foreign Keys

b. Relation Name: Critic2
   5. Attribute Names: Critic_id, Critic_Name
   6. Domain of each Attribute: Critic_id - integer, Critic_Name - Varchar
   7. Primary Key: Critic_id

8. Foreign Key: No Foreign Keys

c. Relation Name: Review2
   9. Attribute Names: Movie_id, Critic_id, evaluation_byCritic
   10. Domain of each Attribute: Movie_id - integer, Critic_id- integer, evaluation_byCritic - integer
   11. Primary Key - Movie_id + Critic_id
   12. Foreign Key - Movie_id, Critic_id

d. Relation Name: Actor2
   13. Attribute Names: Actor_id, Actor_Name, Movie_id
   14. Domain of each Attribute: Actor_id - integer, Actor_Name - Varchar, Movie_id - integer
   15. Primary Key: Actor_id
   16. Foreign Key: Movie_id

e. Relation Name: Production_Company2
   17. Attribute Names: P_Company_id, P_Comapny_Name, Street Address, City, P_State,Zipcode
   18. Domain of each Attribute: P_Company_id – integer , P_Comapny_Name - Varchar , Street Address - Varchar, City - Varchar, P_State - Varchar ,Zipcode- integer
   19. Primary Key: P_Company_id
   20. Foreign Key: No Foreign Keys

f. Relation Name: Domestic_Movie
   21. Attribute Names: Movie_id
   22. Domain of each Attribute: Movie_id - integer
   23. Primary Key: Movie_id
   24. Foreign Key: Movie_id

g. Relation Name: Foreign_Movie
   25. Attribute Names: Movie_id, English_Subtitles
   26. Domain of each Attribute: Movie_id – integer, English_Subtitles- Varchar
   27. Primary Key: Movie_id
   28. Foreign Key: Movie_id

h. Relation Name: ForeignMovie_Language
   29. Attribute Names: Movie_id, F_Movie_language
   30. Domain of each Attribute: Movie_id – integer, F_Movie_language - Varchar
   31. Primary Key: Movie_id + F_Movie_language
   32. Foreign Key: Movie_id

i. Relation Name: Comedy
   33. Attribute Names: Movie_id, Degree_of_Funniness
   34. Domain of each Attribute: Movie_id - integer , Degree_of_Funniness - integer
   35. Primary Key: Movie_id
   36. Foreign Key: Movie_id

j. Relation Name: Drama
   37. Attribute Names: Movie_id
   38. Domain of each Attribute: Movie_id - integer , ShortDescription - Varchar
   39. Primary Key: Movie_id
   40. Foreign Key; Movie_id

k. Relation Name: Action
   41. Attribute Names: Movie_id
   42. Domain of each Attribute: Movie_id - integer
   43. Primary Key: Movie_id
   44. Foreign Key: Movie_id

l. Relation Name: Horror
   45. Attribute Names: Movie_id
   46. Domain of each Attribute: Movie_id - integer
   47. Primary Key; Movie_id
   48. Foreign Key: Movie_id

m. Relation Name: Critic2_Phone_Number
   49. Attribute Names: Critic_id, Phone_No
   50. Domain of each Attribute: Critic_id - integer, Phone_No - integer
   51. Primary Key: Critic_id + Phone_No
   52. Foreign Key: Critic_id

n. Relation Name: Production_Company2_Phone_No
   53. Attribute Names: P_Company_id , P_Phone_No
   54. Domain of each Attribute: P_Company_id - integer, P_Phone_No - integer
   55. Primary Key: P_Company_id + P_Phone_No
   56. Foreign Key: : P_Company_id

o. Relation Name: Produced_by
   57. Attribute Names: Movie_id , P_Company_id
   58. Domain of each Attribute: Movie_id - integer,P_Company_id - integer
   59. Primary Key: Movie_id + P_Company_id
   60. Foreign Key: Movie_id , P_Company_id

Relation schema :