DATABASE PROJECT

Project Name: Movie Management Database

Group members:

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DESCRIPTION OF PROJECT:

We created a database for a movie, including movies, actors, directors and studios. The database allows users to search for movies, make movie ratings and make recommendations.

PYSICAL DATABASE DESIGN

SCENARIO:

It is necessary to develop a movie management database where people who want to watch movies on a local movie site log in with their user information and contain more than one movie.

The entities and relationships to be found in the database are requested and are as follows; Film, Film_Photo, Actor, Film_Actor, Genre, Film_Genre, Country, Film_Country, Users, Film Comment, Actor Comment.

- Movie title, scenarist, director, release date and IMDB rating.
- Film photo address, type and id number optionally resolutions.
- Actor's name, surname, date of birth, actor's photo, actor's resume, actor's awards, and optionally actor's social media links.
- Movie Actor movie id number, actor id number, star actors playing in the movie, actor's role and optionally his salary.
- Genre Name of the genre and description of the genre (every movie should have a genre after that.)
- Movie Genre is the movie id number, and optionally subgenres.
- Country name, optionally its population and official language.
- Movie country movie id number country id number, optionally language and rating board.
- Users name, surname, nickname, e-mail, password and optionally date of birth and gender.
- Movie comment user id number, movie id number, comments made by users, and comment dates.
- Actor comment actor id number, user id number, comments written by users about actors and optionally rating.

RELATIONSHIP:

- A movie can have many movie photos.
- An actor can have many movie actor relationships.
- A movie can have many movie actor relationships.
- A movie can have many genres and a genre can belong to many movies.
- A movie can only have one movie country and a country can have many movies.
- Users can write many movie_comments and a movie can have many movie comments.
- Users can write many actor comments and an actor can have many actor comments.
- Users can have many movie_comments and actor_comments.
- A movie comment belongs to one movie and is written by one user.
- An actor comment belongs to one actor and is written by one user.

ENTITIES & ATTRIBUTES:

Movie					
PK	<u>UniqueID</u>				
*	Movie_Name				
*	Scenarist				
*	Director				
*	Movie_Poster				
*	Movie_Explanation				
*	Movie_Presentation_Date				
*	Movie_IMDB_Score				
0	Budget				
o	Trailer_Link				

Movie_Photo				
PK	<u>UniqueID</u>			
FK	Movie_ID			
*	Address			
o	Туре			
0	Resulotion			

Actor_Movie				
PK	<u>UniqueID</u>			
FK	Movie_ID			
FK	Actor_ID			
*	Movie_Actor_Starring			
o	Role			
o	Salary			

Country				
PK	<u>UniqueID</u>			
*	Country_Name			
0	Population			
o	Official_Language			

Movie_Comment						
PK	<u>UniqueID</u>					
FK	Movie_ID					
FK	Users_ID					
*	Comments					
*	Comments_Date					
o	Rating					

Genre					
PK	<u>UniqueID</u>				
*	Name				
0	Description				

Movie_Country					
PK	<u>UniqueID</u>				
FK	Movie_ID				
FK	Country_ID				
o	Language				
0	Rating_Board				

	Actor_Comment				
PK	<u>UniqueID</u>				
FK	Actor_ID				
FK	Users_ID				
*	Comments				
*	Comments_Date				
0	Rating				

Actor					
PK	<u>UniqueID</u>				
*	Name				
*	Surname				
*	Actor_Photograph				
*	Birth_Date				
*	Actor_Resume				
o	Nationality				
o	Awards				
o	Height				
o	Social_Media_Link				

Movie_Genre				
PK	<u>UniqueID</u>			
FK	Movie_ID			
FK	Genre_ID			
o	Sub_Genre			

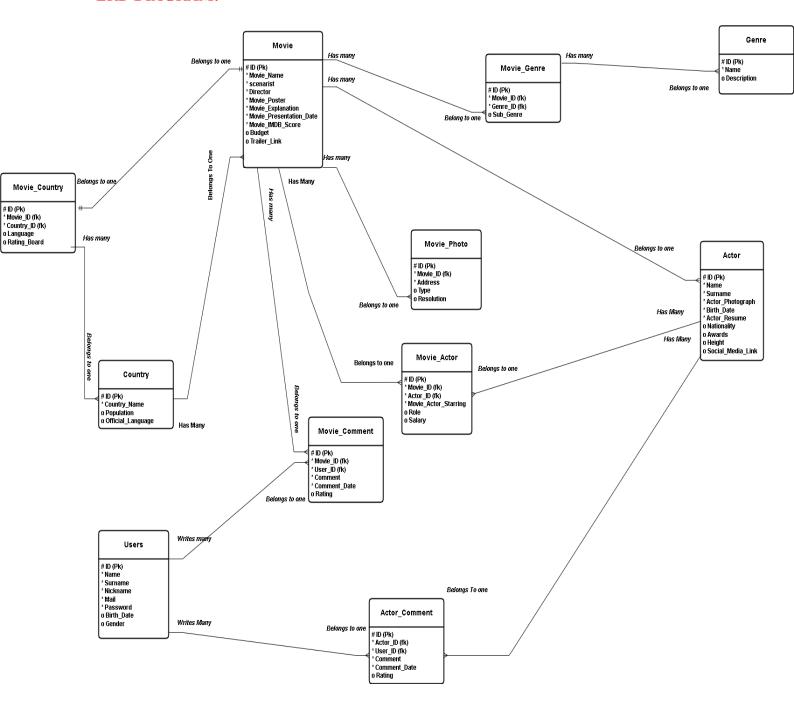
Users							
PK	<u>UniqueID</u>						
*	User_Name						
*	User_Surname						
*	User_Nickname						
*	User_Mail						
*	User_Password						
0	Birth_Date						
0	Gender						

MATRIX DIAGRAM:

	Movie	Movie Photo	Actor	Movie Actor	Genre	Movie Genre	Country	Movie Country	User	Movie Comment	Actor Comment
Movie		Has many		Has many		Has Many		Belongs To one		Has many	
Movie Photo	Belongs To one										
Actor				Has many							Has many
Movie Actor	Belongs To one										
Genre						Has many					
Movie Genre	Belongs To one				Belongs to one						
Country								Has many			
Movie Country	Belongs To one						Belongs To one				
User										Writes many	Writes many
Movie Comment	Belongs to one								Belongs to one		
Actor Comment			Belongs to one						Belongs to one		

Matrix Diagram

ERD DIAGRAM:



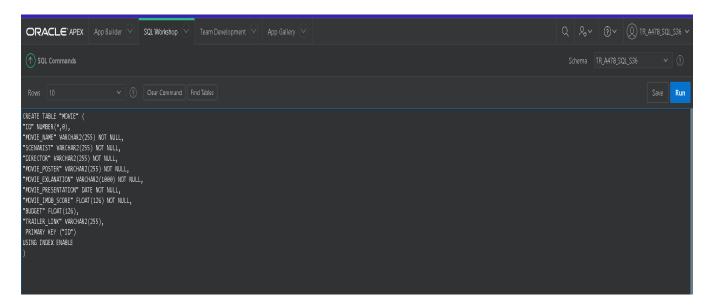
SQL QUERIES

1)SQL Creating Tables:

We will create tables for a movie database including Movie, Movie_Photo, Actor, Movie_Actor, Genre, Movie_Genre, Country, Movie_Country, Users, Movie_Comment, and Actor_Comment.

1.1) Creating Movie Table;

The Movie table includes columns for ID, Movie_Name, Scenarist, Director, Movie_Poster, Movie_Explanation, Movie_Presentation_Date, Movie_IMDB_Score, Budget, and Trailer_Link. With the ID column as primary key.



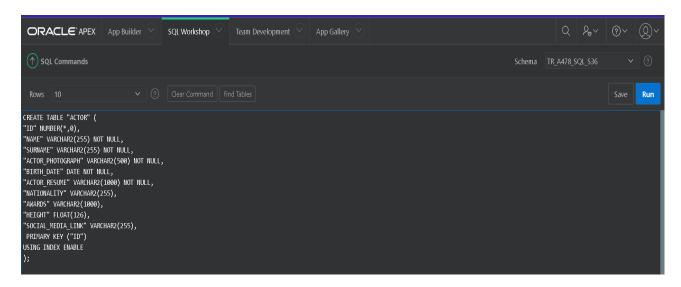
1.2) Creating Movie Photo Table;

The Movie_Photo table includes columns for ID, Movie_ID, Address, Type, and Resolution with foreign keys referencing the movie table and the ID column as the primary key.



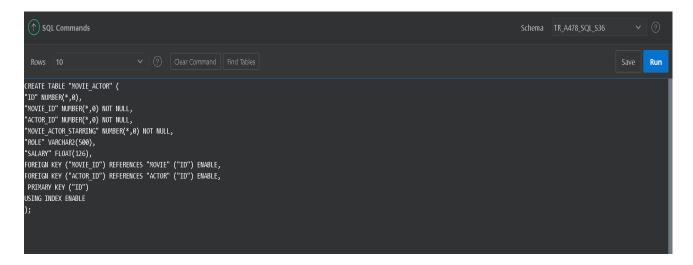
1.3) Creating Actor Table;

The Actor table includes columns ID, Name, Surname, Actor_Photograph, Birth_Date, Actor_Resume, Nationality, Awards, Height, and Social_Media_Link. With the ID column as the primary key.



1.4) Creating Movie Actor Table;

The Movie_Actor table includes columns ID, Movie_ID, Actor_ID, Movie_Actor_Starring, Role, and Salary. With foreign key referencing the Movie and Actor tables and the ID column as the primary key.

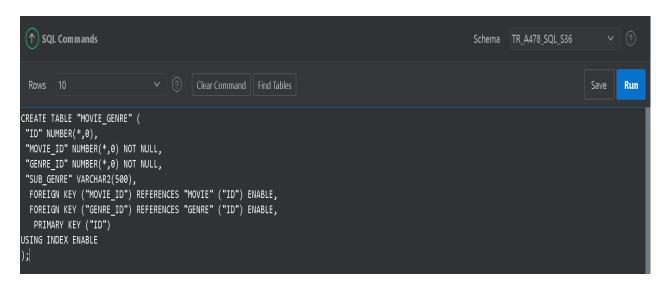


1.5) Creating Genre Table;

The Genre table include columns ID, Name, and Description . With the ID column as the primary key.

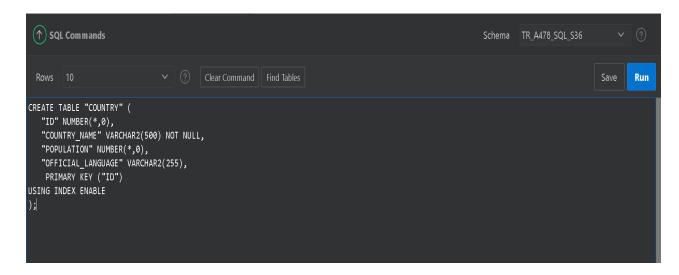
1.6)Creatng Movie_Genre Table;

The Movie_Genre table includes columns ID, Movie_ID, Genre_ID, and Sub-Genre. With foreign key referencing Movie and Genre tables and the ID columns as the primary key.



1.7) Creating Country Table;

The Country table includes columns ID, Country_Name, Population, and Official_Language. With the ID column as primary key.



1.8) Creating Movie_Country Table;

The Movie_Country table includes columns ID, Movie_ID, Country_ID, Language, and Rating_Board. With foreign keys referencing the Movie and Country tables and the ID column as the primary key.

1.9)Creating Users Table;

The Users table includes columns ID, User_Name, User_Surname, User_Nickname, User_Mail, User_Password, Birth_Date, and Gender. With the ID column as primary key.

```
ROWS 10 
CREATE TABLE "USERS" (
"ID" NUMBER(*,0),
"USER_NAME" VARCHAR2(255) NOT NULL,
"USER_SURNAME" VARCHAR2(255) NOT NULL,
"USER_MICKNAME" VARCHAR2(255) NOT NULL,
"USER_PASSWORD" VARCHAR2(255) NOT NULL,
"USER_PASSWORD" VARCHAR2(255) NOT NULL,
"USER_PASSWORD" VARCHAR2(255) NOT NULL,
"USER_PASSWORD" VARCHAR2(255),
PRIMARY KEY ("ID")
USING INDEX ENABLE
);
```

1.10)Creating Movie_Comment Table;

The Movie_Comment table includes columns ID, Movie_ID, Users_ID, Comments, Comments_Date, and Rating. With foreign keys referencing the Movie and Users tables and the ID column as the primary key.

1.11)Creating Actor Comment Table;

The Actor_Comment table includes columns ID, Actor_ID, Users_ID, Comments, Comments_Date, and Rating. With foreign keys referencing Actor and Users tables and the ID column as the primary key.



2)SQL INSERTING VALUES:

2.1)Inserting Values In Movie Table;

```
INSERI INTO "MOVIE" ("ID", "MOVIE_NAME", "SCEMARISI", "DIRECTOR", "MOVIE_POSTER", "MOVIE_POSTE
```

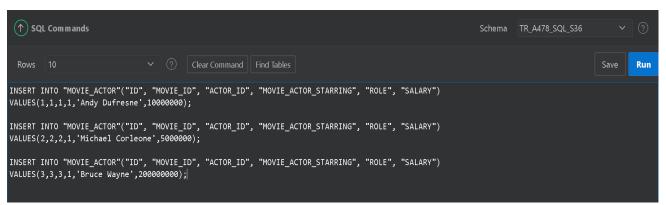
2.2) Inserting Values In Movie Photo Table;



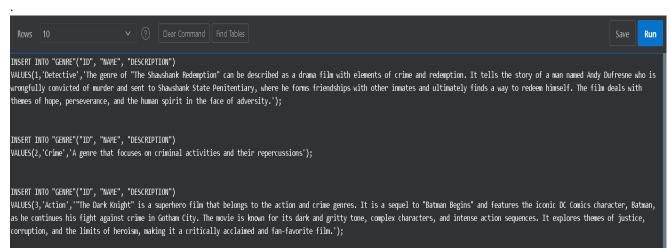
2.3) Inserting Values In Actor Table;



2.4) Inserting Values In Movie_Actor Table;



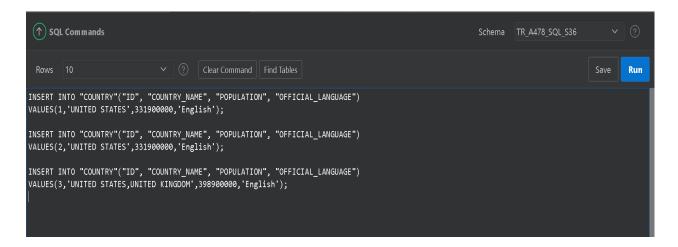
2.5) Inserting Values In Genre Table;



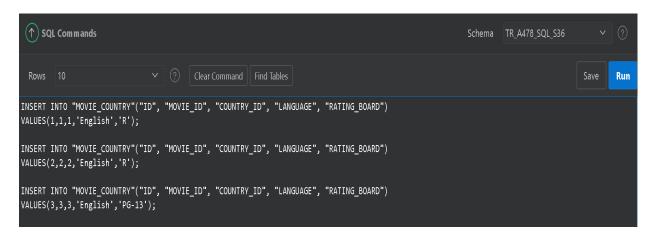
2.6) Inserting Values In Movie Genre Table;



2.7) Inserting Values In Country Table;



2.8) Inserting Values In Movie Country Table;



2.9)Inserting Values In Users Table;

```
INSERT INTO "USERS"("ID", "USER_NAME", "USER_SURNAME", "USER_NICKNAME", "USER_MAIL",

"USER_PASSWORD", "BIRTH_DATE", "GENDER")

VALUES(1, 'Yahya', 'Zakrya Khan', 'Hyperranger_1975', 'YahyaZK@gmail.com', '123456',

TO_DATE('2000-04-14', 'YYYY-MM-DD'), 'Male');

INSERT INTO "USERS"("ID", "USER_NAME", "USER_SURNAME", "USER_NICKNAME", "USER_MAIL",

"USER_PASSWORD", "BIRTH_DATE", "GENDER")

VALUES(2, 'Leyla Nur', 'Sönmez', 'LeylaNur', 'leylaNs@gmail.com', '123456',

TO_DATE('2000-04-14', 'YYYY-MM-DD'), 'Female');

INSERT INTO "USERS"("ID", "USER_NAME", "USER_SURNAME", "USER_NICKNAME", "USER_MAIL",

"USER_PASSWORD", "BIRTH_DATE", "GENDER")

VALUES(3, 'KÜbra', 'Gönülal', 'Kubragonulal', 'KubraG@gmail.com', '123456',

TO_DATE('2000-04-14', 'YYYY-MM-DD'), 'Female');

INSERT INTO "USERS"("ID", "USER_NAME", "USER_SURNAME", "USER_NICKNAME", "USER_MAIL",

"USER_PASSWORD", "BIRTH_DATE", "GENDER")

VALUES(4, 'Nuran', 'Serbez', 'NuranSerbez', 'NuranS@gmail.com', '123456',

TO_DATE('2000-04-14', 'YYYY-MM-DD'), 'Female');
```

2.10)Inserting Value In Movie Comment Table;

```
Rows 10 Clear Command Find Tables

INSERT INTO "MOVIE_COMMENT"("ID", "MOVIE_ID", "USERS_ID", "COMMENTS", "COMMENTS_DATE", "RATING")
VALUES(1,3,1,'This movie is a masterpiece', TO_DATE('2023-04-30','YYYY-MM-DD'), 10.0);

INSERT INTO "MOVIE_COMMENT"("ID", "MOVIE_ID", "USERS_ID", "COMMENTS", "COMMENTS_DATE", "RATING")
VALUES(2,1,2,'I like this movie wow!', TO_DATE('2023-04-30','YYYY-MM-DD'), 9.0);

INSERT INTO "MOVIE_COMMENT"("ID", "MOVIE_ID", "USERS_ID", "COMMENTS", "COMMENTS_DATE", "RATING")
VALUES(3,2,3,'This movie is fully of action fantastic', TO_DATE('2023-04-30','YYYY-MM-DD'), 9.5);

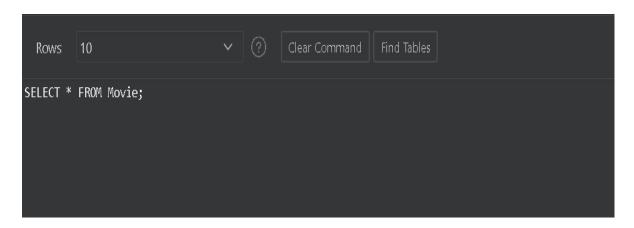
INSERT INTO "MOVIE_COMMENT"("ID", "MOVIE_ID", "USERS_ID", "COMMENTS", "COMMENTS_DATE", "RATING")
VALUES(4,2,4,'I love crime movies', TO_DATE('2023-04-30','YYYY-MM-DD'), 10.0);
```

2.11)Inserting Values In Actor Comment Table;



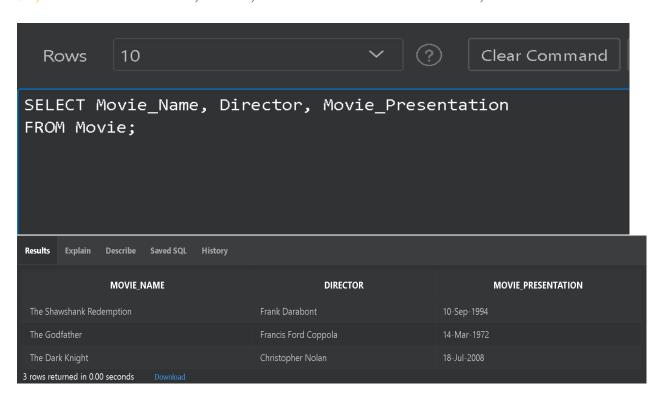
3)SQL Select Commands:

3.1) To select all columns from the Movie table;

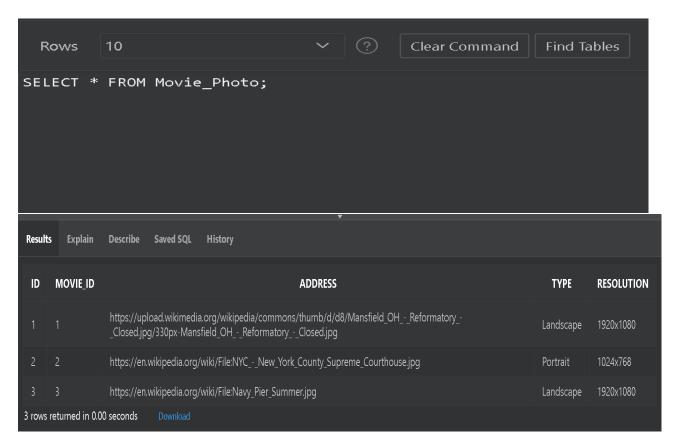


Results Explain Describe Saved SQL History									
ID	MOVIE_NAME	SCENARIST	DIRECTOR	MOVIE_POSTER	MOVIE_EXLANATION	MOVIE_PRESENTATION	MOVIE_IMDB_SCORE	BUDGET	TRAILER_LINK
1	The Shawshank Redemption	Frank Darabont	Frank Darabont	https://en.wikipedia.org/wiki/File/ShawshankRedemptionMoviePoster.jpg	Two imprisoned men bond over a number of years, finding solace and eventual redemption through acts of common decency.				https://www.youtube.com/watch? v=NmzuHjWmXOc
2	The Godfather	Mario Puzo		https://en.wikipedia.org/wiki/File/Godfather_ver1.jpg	The aging patriarch of an organized crime dynasty transfers control of his clandestine empire to his reluctant son.	14-Mar-1972	9.2		https://www.youtube.com/watch? v=sY1S34973zA
3	The Dark Knight	Christopher Nolan, Jonathan Nolan		https://en.wikipedia.org/wiki/FileThe_Dark_Knight_(2008_film).jpg	When the menace known as the Joker wreaks havoc and chaos on the people of Gotham, Batman must accept one of the greatest psychological and physical tests of his ability to fight injustice.	18-Jul-2008			https://www.youtube.com/watch? v=LDG9bislEal
3 rows returned in 0.01 seconds Download									

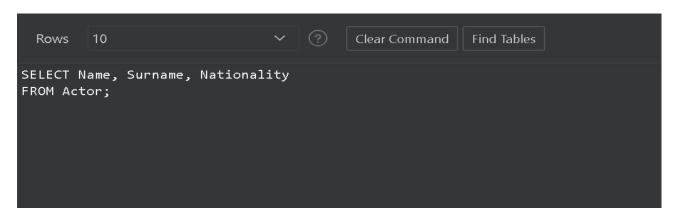
3.2) To select the movie name, Director, and release date from the Movie table;

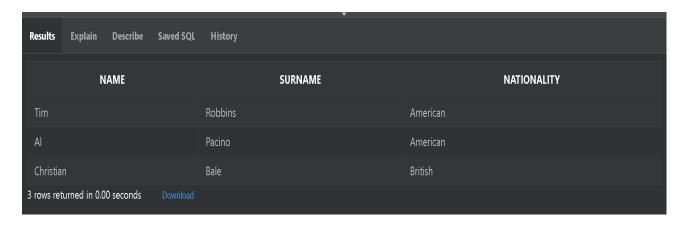


3.3)To select all columns from Movie_Photo table;

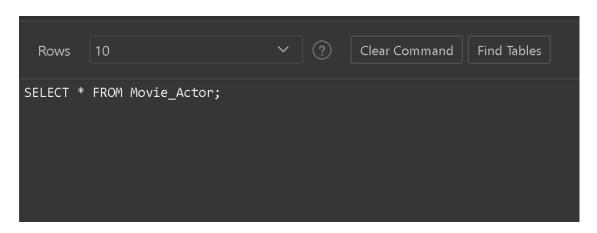


3.4) To select the name, surname, nationality of all Actors;



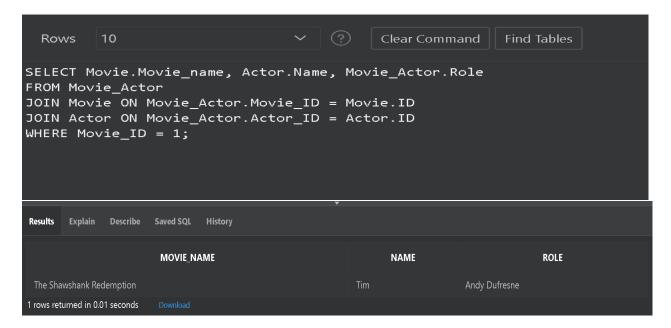


3.5)To select all columns of the Movie_Actor table;

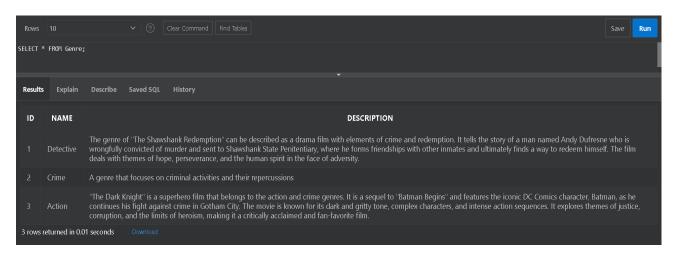


Results	Explain Describe	Saved SQL History			
ID	MOVIE_ID	ACTOR_ID	MOVIE_ACTOR_STARRING	ROLE	SALARY
1				Andy Dufresne	10000000
2				Michael Corleone	5000000
3				Bruce Wayne	200000000
3 rows ret	urned in 0.01 seconds	Download			

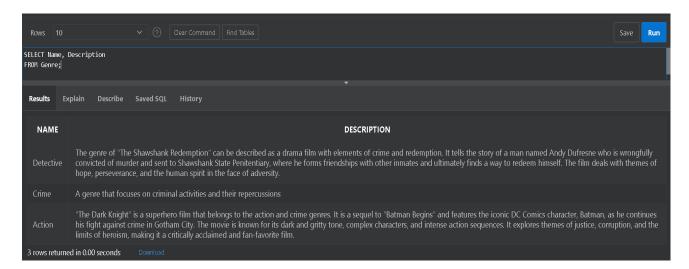
3.6)To select the movie name, actor name and role from the Movie_Actor table where the movie id is 1. It is joining the tables together based on their respective IDs.



3.7)To select the all columns of the Genre table with result;



3.8)To select the name and description from Genre table with result;



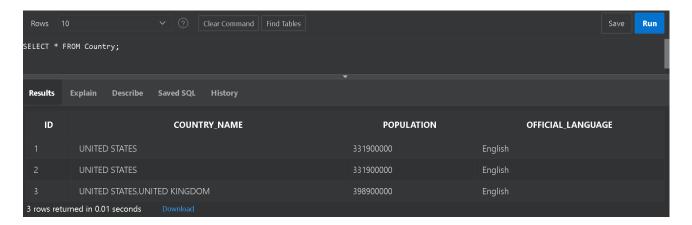
3.9) To select the all columns of the Movie Genre table with result;



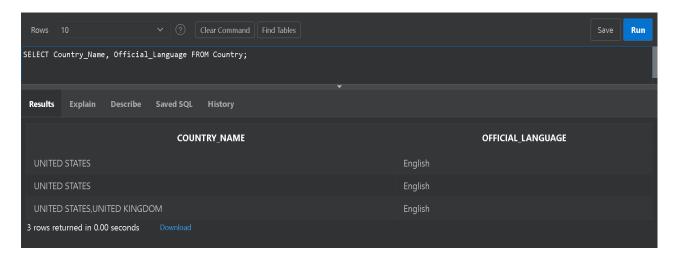
3.10)To select the movie name and genre name for all movies with the "Crime" genre. It is joining the tables together based on their respective IDs.



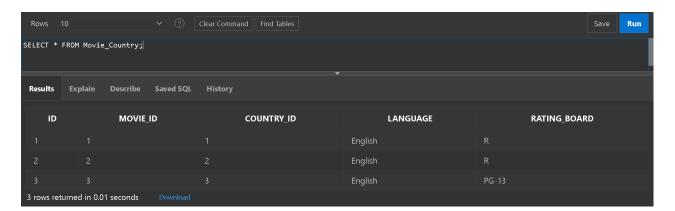
3.11)To select the all columns from the Country table with result;



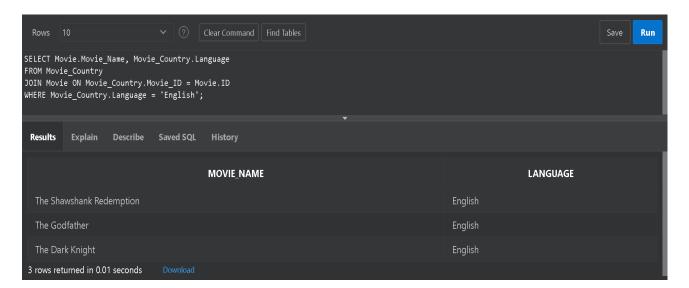
3.12) To select country name and official language from Country table with result;



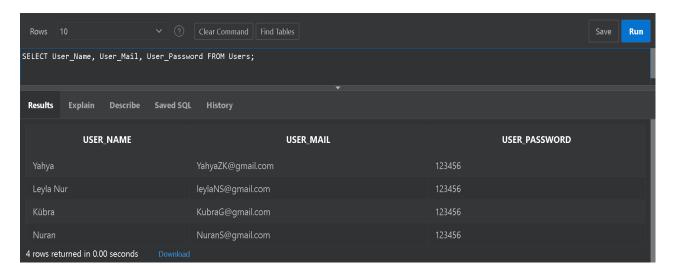
3.13)To select the all columns from Movie Country table with result;



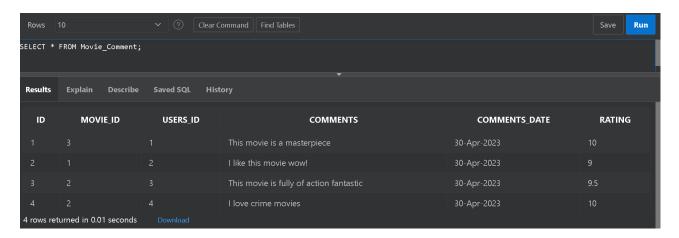
3.14)To select the movie name and language for all movies released in English from Movie_Country table. It is joining the tables together based on their respective IDs.



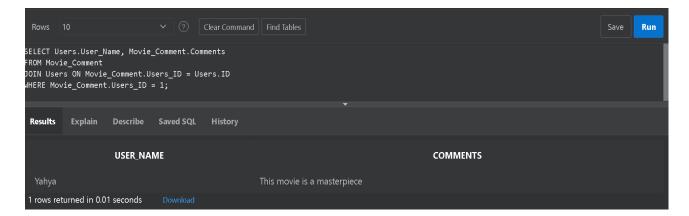
3.15)To select user name, user email and user passwords from Users table.



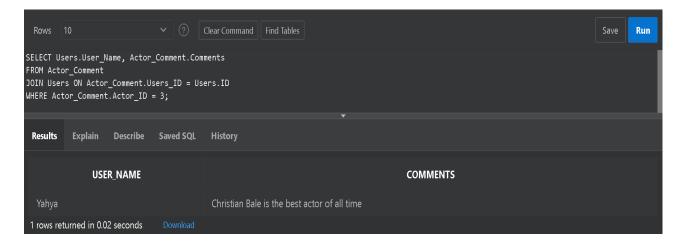
3.16) To select the all columns from Movie Comment table.



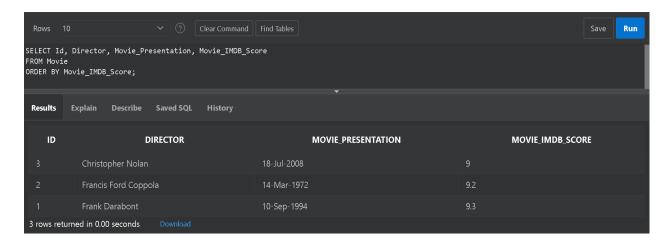
3.17)To select the user name and comment for all comments on the movie with Id from Movie_Comment table. It is joining the tables together based on their respective IDs to create a new table that includes the users name, movie comments, where Id 1



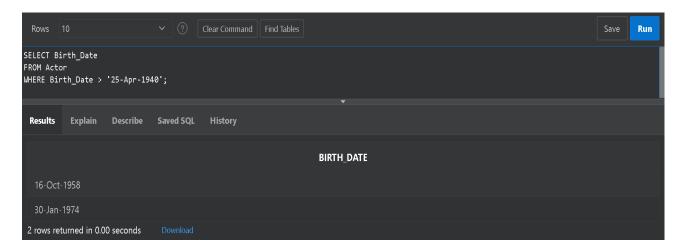
3.18)To select the user name and comment for all comments on the actor with Id from Actor_Comment tablet. It is joining the tables together based on their respective IDs to create a new table that includes the users name, actor comments, and Id 3



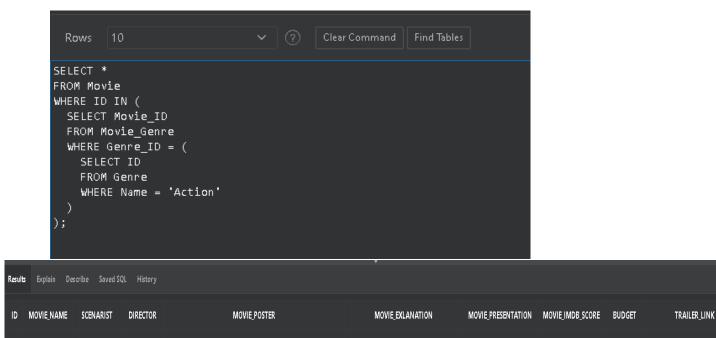
3.19)To select the Id, director, movie presentation date and movie IMDB score ordering it by movie IMDB score from Movie table with result.



3.20) To select the birth date from the Actor table and use the where clause to display that the birth date is greater than '25-Apr-1940'.



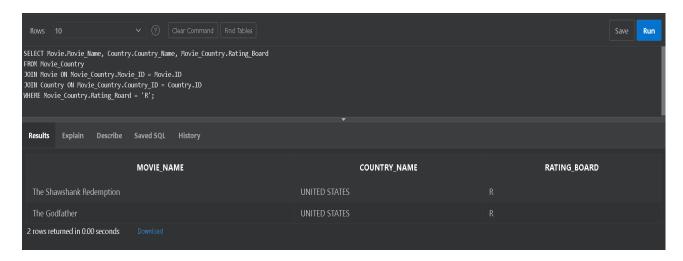
3.21)To select the all columns from the Movie table that belong to the genre 'Action' by using subquery.



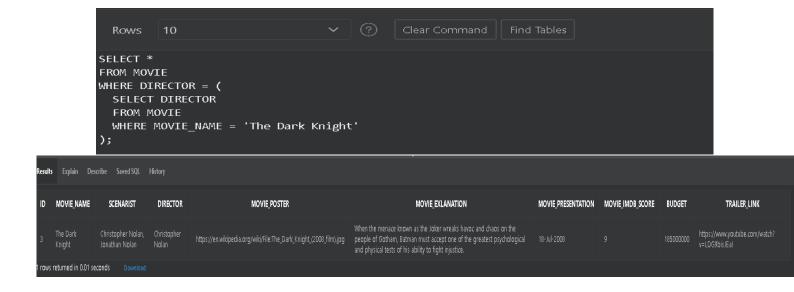
3.22) To select from Movie, Country, and Movie_Country. It is joining the tables together based on their respective IDs to create a new table that includes the movie name, country name, and rating board for each movie that has a rating board of 'R'.

rows returned in 0.01 seconds Download

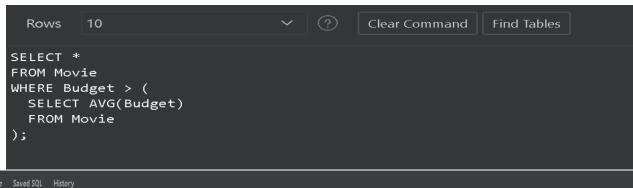
greatest psychological and physical tests of his ability to fight injustice.

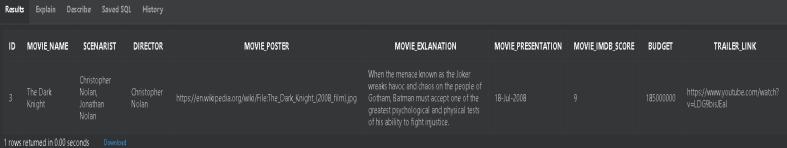


3.23) To select all movies directed by the same director as the movie 'The Dark Knight'. By using subquery.

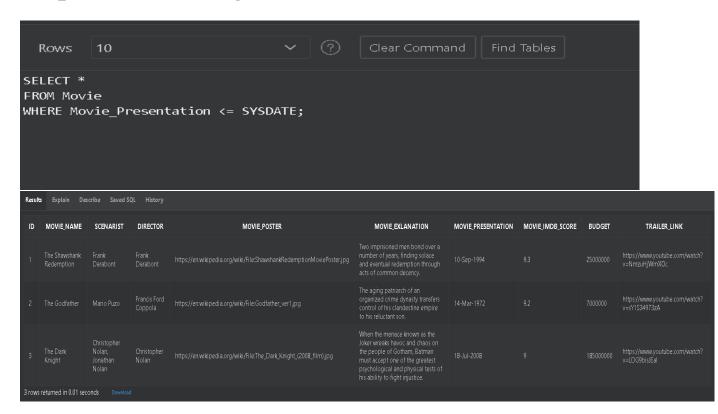


3.24) To select all columns from the Movie table where the Budget column is greater than the average budget of all movies in the same table. By using subquery.

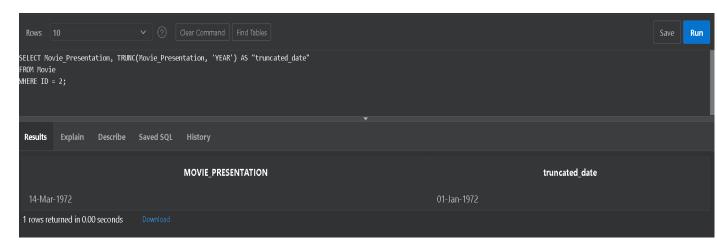




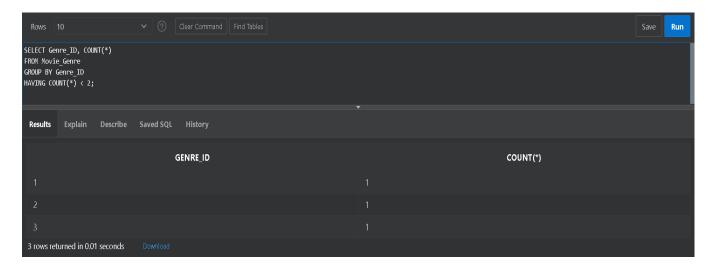
3.25) To selects all columns from the table "Movie" where the value in the column Movie_Presentation is less than or equal to the current date and time.



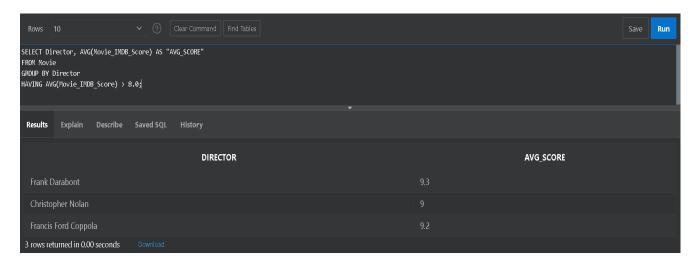
3.26) To select the Movie_Presentation and truncates it to the year using the TRUNC function. The result of the truncation is displayed as "truncated_date". The query only selects data from the Movie table where the ID is equal to 2.



3.27) To select the number of movies in each genre from a table called Movie_Genre. The query groups the movies by their genre ID and counts the number of movies in each group. The HAVING clause filters the results to only show genres with less than two movies.



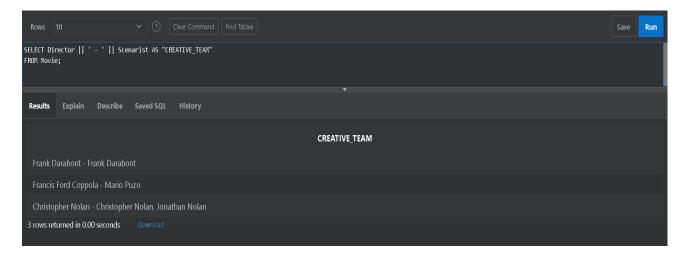
3.28) Selecting from a table called Movie. So here selects the Director column and calculates the average of the Movie_IMDB_Score column for each director. The resulting column is named "AVG_SCORE". The query then groups the data by director using the GROUP BY clause. Finally, the HAVING clause filters the results to only show rows where the average score is greater than 8.0.



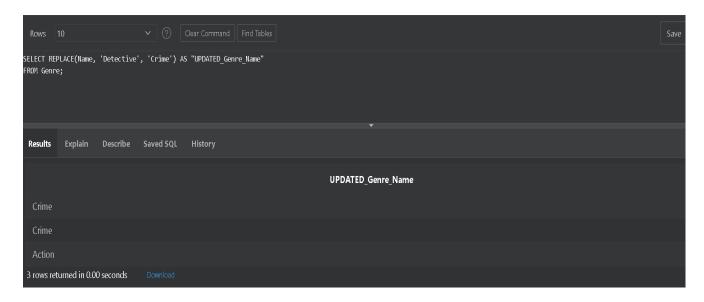
3.29) Selecting a substring of the "Movie_Name" column from the Movie table. The substring starts at the first character and has a length of 10 characters. The AS keyword is used to rename the resulting column as "SHORT_NAME".



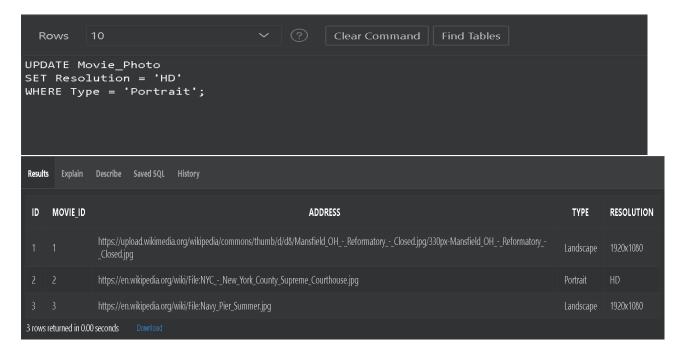
3.30) Selecting from a table called Movie. So here we concatanated values of two columns, Director and Scenarist using the concatenation operator "||". Concatenated string is given an alias "CREATIVE_TEAM".



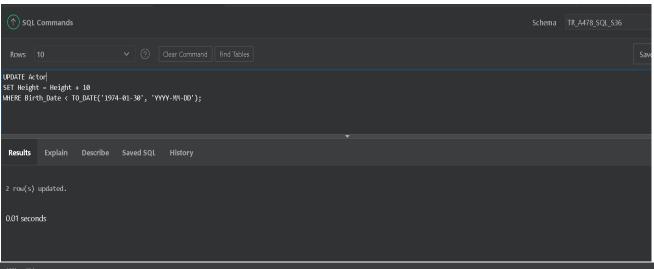
3.31) Selecting from a table named Genre. So here we used the REPLACE function to replace the word "Detective" in the Name column with the word "Crime". The result of this code is stored in a new column named as "UPDATED Genre Name".

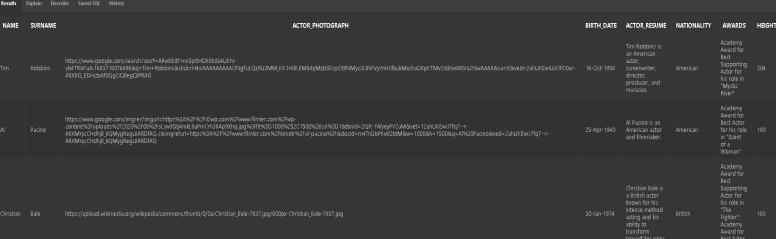


3.32) Updating the Resolution column in the Movie_Photo table. It sets the value of Resolution to 'HD' for all rows where the Type column is equal to 'Portrait'.

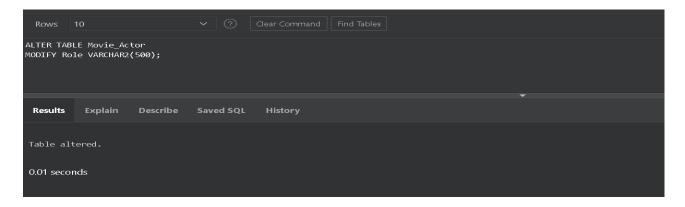


3.33) Updating the Height column in the Actor table. The new value for Height is the current value plus 10. The condition for this update is that the Birth_Date of the actor must be before January 30, 1974.

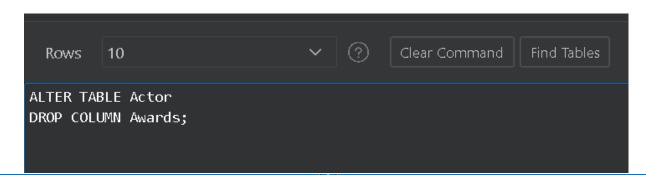




3.34) modifying the data type of the Role column in the Movie_Actor table to VARCHAR2 with a maximum length of 500 characters.



3.35) This command removes data called the Awards column from the Actor table.



Result	Explain	Describe S	iered SQL History					
D	NAME	SURNAME	ACTOR_PHOTOGRAPH	BIRTH_DATE	ACTOR_RESUME	NATIONALITY	HEIGHT	SOCIAL_MEDIA_LINK
1			http://www.google.com/search?csrf=APwEdf-mn5pGHD65Edc4UNI- vb4TRV/ba4.16837180764968q=Tim+Robbins&sticle=H4slAAAAAAAAANgFuL0z9U3MM_IXTHIBLEM84qMzb5EspOt9RMyc3LBhFv/yihHillbukMxchsD8pKTMvOldrhvA85nU7zwAAAA&ss=X&ved=2ahUKEwiUvOfOOur- AN9O_EDHcbx4OOgOOBegQIPRAG		Tim Robbins is an American actor, screenwriter, director, producer, and musician.			https://twitter.com/timrobbins1
2			http://www.google.com/imgre:7imgurl=http://s3A%2F92F0.wp.com%2Fwww.flimler.com%2Fwp- content%2fuploadx82F2000XF09%2F1.sws9p/ank18aFmCrh38Apg9na,pgx87ft6X3D1000X525C1500%26s1R3D18tbnid=2QR-1WyeyPfCuM8oet=12ahUKEwU7fq7-r- ANMMycCHdry6_URMPG04BCM3.imgrefurl=http://s3A%2F%2Fwww.flimler.com%2Fkimdir%2Fa1-pacino%2F8docid=m4fn0bPh/d2etM8w=10008h=15008q=AP%20Facino8ved=2ahUKEwU7fq7-r- ANMMycCHdry6_URMPG04BCM30Apg04BCM4Q	25-Apr-1940	Al Pacino is an American actor and filmmaker.			https://twitter.com/AIPacino
3			https://upload.wikimedia.org/wikipedia/commons/thumb/Q/Qa/Christan_Bale-7837.jpg@000pv-Christian_Bale-7837.jpg		Christian Bale is a British actor known for his intense method acting and his ability to transform himself for roles.			https://twitter.com/christianbale
3 must returned in DOO cannots Drawfood								