

MOVIE DATABASE

Group 4

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Background

Which movie
should I
watch?



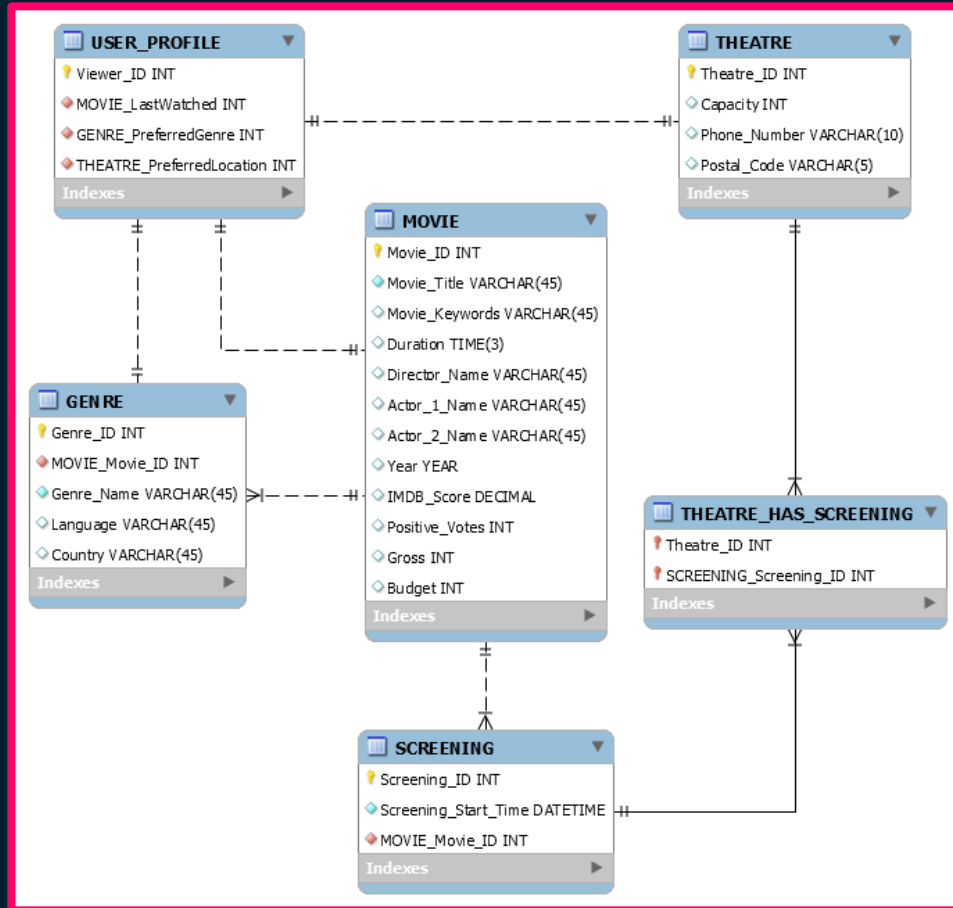
What is
in-theatres
now?



Project Goals

- ★ Recommend movies based on User Preferred Theatre
- ★ Recommend movies based on User Preferred Genre
- ★ Movies showing near User Location
- ★ The top rated movies currently playing

Database Design



Collected Data

- › Data Source: Kaggle Movie Dataset
 - › 28 fields; ~5k records
- › Manipulations Performed
 - › Genre
 - › Plot Keywords

Out of scope:

Non-English movies & records with null values in required fields

Movie Data (15)

Movie_ID	Movie_Title	Movie_Keywords	Duration	Director_Name	Actor_1_Name	Actor_2_Name	Year	IMDB_Score	Positive_Votes	Gross
1	Avatar	avatar future marine native	178	James Cameron	CCH Pounder	Joel David Moore	2009	8	33000	761000000
2	Pirates of the Caribbean: At World's End	oodess marriage ceremony marriage proposal ...	169	Gore Verbinski	Johnn DeVoe	Orlando Bloom	2007	7	0	309000000
3	Soectre	bomb espionage sequel spy terrorist	148	Sam Mendes	Christoph Waltz	Rory Kinnear	2015	7	85000	200000000
4	The Dark Knight Rises	deception imprisonment lawlessness police offic...	164	Christopher Nolan	Tom Hardy	Christian Bale	2012	9	164000	448130642
5	The Avengers	alien invasion assassin battle iron man soldier	173	Joss Whedon	Chris Hemsworth	Robert Downey Jr.	2012	8	123000	623279547
6	John Carter	alien american civil war male nipple mars princess	132	Andrew Stanton	Daryl Sabara	Samantha Morton	2012	7	24000	73058679
7	Spider-Man 3	sandman spider man symbiote venom villain	156	Sam Raimi	J.K. Simmons	James Franco	2007	6	0	336530303
8	Tangled	17th century based on fairy tale disney flower ...	100	Nathan Greno	Brad Garrett	Donna Murphy	2010	8	29000	200807262
9	Avengers: Age of Ultron	artificial intelligence based on comic book	141	Joss Whedon	Chris Hemsworth	Robert Downey Jr.	2015	8	118000	458991599
10	Harry Potter and the Half-Blood Prince	blood book love lootion professor	153	David Yates	Alan Rickman	Daniel Radcliffe	2009	8	10000	301956980
11	Batman v Superman: Dawn of Justice	based on comic book batman sequel to a reboot...	183	Zack Snyder	Henry Cavill	Lauren Cohan	2016	7	197000	330249062
12	Superman Returns	crystal epic lex luthor lois lane return to earth	169	Bryan Singer	Kevin Spacey	Marlon Brando	2006	6	0	200069408
13	Quantum of Solace	action hero attempted rape bond girl official ia...	106	Marc Forster	Giancarlo Giannini	Mathieu Amalric	2008	7	0	168368427
14	Pirates of the Caribbean: Dead Man's C...	box office hit oant sould heart liar's dice monster	151	Gore Verbinski	Johnn DeVoe	Orlando Bloom	2006	7	5000	423032628
15	The Lone Ranger	horse outlaw texas texas ranger train	150	Gore Verbinski	Johnn DeVoe	Ruth Wilson	2013	7	48000	89289910

User Profile Data (5)

Viewer_ID	GENRE_PrefferedGenre_ID	MOVIE_LasrWatched	THEATER_PREFERREDLocation_ID
1	6	10	3
2	10	1	1
3	2	8	2
4	12	15	5
5	7	4	4

Genre Data (15)

Genre_ID	Genre_Name	Language	Country	MOVIE_Movie_ID
1	Action	English	USA	1
2	Adventure	English	USA	15
3	Fantasv	English	USA	3
4	Sci-Fi	English	USA	7
5	Thriller	English	USA	6
6	Familv	English	USA	2
7	Animation	English	USA	10
8	Romance	English	USA	13
9	Drama	English	USA	4
10	Adventure	English	USA	5
11	Musical	English	USA	14
12	Comedv	English	USA	8
13	Mvsterv	English	USA	11
14	Fantasv	English	USA	12
15	Thriller	English	USA	9

Theatre Data (5)

Theatre_ID	Theatre_Name	Theatre_Location	Capacity	Phone_Number	Postal_Code
1	Bow Tie Hoboken Cinemas	14th street, Hoboken, NJ	500	2017105581	07030
2	AMC Newport center	Newport Center, Newport	300	2016263258	07303
3	Village East Cinema	189 2nd Ave, New York	700	2125296998	10003
4	SVA Theatre	333 W 23rd street, New York	1000	2125922980	10011
5	DGA New York Theater	110 W 5th street, New York	700	2122580811	10019

Screening Data (5)

Screening_ID	Screening_Start_Time	MOVIE_Movie_ID
1	08:00am	10
2	10:00am	7
3	04:00pm	15
4	11:00pm	2
5	09:00am	5

Theatre has Screening Data (5)

THEATRE_Theatre_ID	SCREENING_Screening_ID
5	1
3	2
4	3
1	4
2	5



Use Cases & Queries

Use Case #1:

List of Movies at Preferred Theatre

```
SELECT DISTINCT MOVIE.MOVIE_TITLE
FROM THEATRE_HAS_SCREENING THS
  INNER JOIN SCREENING S
    ON THS.SCREENING_Screening_ID = S.Screening_ID
  INNER JOIN MOVIE
    ON S.MOVIE_Movie_ID = MOVIE.Movie_ID
  INNER JOIN THEATRE T
    ON THS.Theatre_ID = T.Theatre_ID
  INNER JOIN USER_PROFILE UP
    ON T.Theatre_ID = UP.THEATRE_PREFERREDLocation
WHERE UP.Viewer_ID = '1'
```

Use Case #1: Results Example

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
	Movie_Title			
	Harry Potter and the Half-Blood Prince			
	Spider-Man 3			
	The Lone Ranger			
	Pirates of the Caribbean: At World's End			
	The Avengers			

Use Case #2:

List of Movies of Preferred Genre

```
SELECT distinct USER_PROFILE.Viewer_ID,  
MOVIE.Movie_Title, GENRE.Genre_Name,  
USER_PROFILE.GENRE_PreferedGenre  
FROM MOVIE, USER_PROFILE, GENRE  
    INNER JOIN MOVIE M ON GENRE.MOVIE_Movie_ID =  
        M.Movie_ID  
    INNER JOIN USER_PROFILE UP ON  
        UP.MOVIE_LastWatched = M.Movie_ID  
WHERE M.Movie_ID <>  
    USER_PROFILE.MOVIE_LastWatched  
AND GENRE.Genre_ID =  
    USER_PROFILE.GENRE_PreferedGenre;
```

Use Case #2:

Results Example

	Viewer_ID	Movie_Title	Genre_Name	^	GENRE_PreferredGenre
▶	3	Avatar	Adventure	2	
	3	Pirates of the Caribbean: At World's End	Adventure	2	
	3	Spectre	Adventure	2	
	3	The Dark Knight Rises	Adventure	2	

Use Case #3:

List of Movies at Any Theatre

```
SELECT DISTINCT Theatre_ID, Theatre_Location, Movie_Title
FROM THEATRE, SCREENING, MOVIE,
     THEATRE_HAS_SCREENING
WHERE SCREENING.Screening_ID
      = THEATRE_HAS_SCREENING.SCREENING_Screening_ID
AND SCREENING.MOVIE_Movie_ID = MOVIE.Movie_ID
AND THEATRE.Theatre_ID = '1'
```

Use Case #3:

Result Example

```
12  
13 #Case 3  
14 SELECT distinct Theatre_ID, Theatre_Location,Movie_Title  
15 FROM new_schema1.user_profile,new_schema1.theatre,new_schema1.screening,new_schema1.movie,new_schema1.theatre_has_screening  
16 WHERE new_schema1.screening.Screening_ID= new_schema1.theatre_has_screening.SCREENING_Screening_ID  
17 AND new_schema1.screening.MOVIE_Movie_ID= new_schema1.movie.Movie_ID  
18 AND new_schema1.theatre.Theatre_ID = '1'  
19
```

< Result Grid | Filter Rows: | Export:  | Wrap Cell Content: 

	Theatre_ID	Theatre_Location	Movie_Title
	1	14th street. Hoboken. NJ	Harry Potter and the Half-Blood Prince
	1	14th street. Hoboken. NJ	Spider-Man 3
	1	14th street. Hoboken. NJ	The Lone Ranger
	1	14th street. Hoboken. NJ	Pirates of the Caribbean: At World's End
	1	14th street. Hoboken. NJ	The Avengers

Use Case #4:

List of Currently Top Rated Movies


```
SELECT Theatre_ID, Movie_Title, IMDB_Score,  
       Screening_Start_Time  
FROM MOVIE, THEATRE, SCREENING,  
       THEATRE_HAS_SCREENING  
WHERE MOVIE.Movie_ID =  
       SCREENING.MOVIE_Movie_ID  
AND THEATRE.Theatre_ID =  
       THEATRE_HAS_SCREENING.Theatre_ID  
AND MOVIE.IMDB_Score > 7
```

Use Case #4:

Results Example

```
--  
22 #Case 4  
23 Select DISTINCT Theatre_ID, Movie_Title, IMDB_Score, Screening_Start_Time  
24 From new_schema1.movie, new_schema1.theatre, new_schema1.SCREENING, new_schema1.theatre_has_screening  
25 where new_schema1.Movie.Movie_ID = new_schema1.SCREENING.MOVIE_Movie_ID  
26 AND new_schema1.Theatre.Theatre_ID = new_schema1.theatre_has_screening.THEATRE_Theatre_ID  
27 AND new_schema1.Movie.IMDB_Score > '7'  
28
```

<

Result Grid |   Filter Rows: | Export:  | Wrap Cell Content: 

	Theatre_ID	Movie_Title	IMDB_Score	Screening_Start_Time
	1	Harry Potter and the Half-Blood Prince	8	08:00am
	1	The Avengers	8	09:00am
	2	Harry Potter and the Half-Blood Prince	8	08:00am
	2	The Avengers	8	09:00am

Conclusion & Future Work

Conclusion:

- › One-stop destination for a user to check which movies are showing at a nearby theatre
- › Viewers can rate the movie
- › Viewers can sort & filter according to interests & recommendations

Future Scope:

- › Integration with real-time data
- › Professional GUI to be developed
- › Steps will be taken to improve speed & performance

Thank you!
Questions?


Executable SQL Code for Use Cases

#Case1

```
SELECT DISTINCT Movie_Title
FROM new_schema1.theatre_has_screening THS
  INNER JOIN new_schema1.screening S
    ON THS.SCREENING_Screening_ID = S.Screening_ID
  INNER JOIN MOVIE
    ON S.MOVIE_Movie_ID = MOVIE.Movie_ID
  INNER JOIN new_schema1.theatre T
    ON THS.THEATRE_Theatre_ID = T.Theatre_ID
  INNER JOIN new_schema1.user_profile UP
    ON T.Theatre_ID =
      new_schema1.UP.THEATER_PREFERREDLOCATION_ID
WHERE new_schema1.UP.Viewer_ID = '1'
```

Executable SQL Code for Use Cases

#Case 2

```
SELECT new_schema1.user_profile.Viewer_ID,  
       new_schema1.MOVIE.Movie_ID,  
       new_schema1.MOVIE.Movie_Title,  
       new_schema1.GENRE.Genre_Name  
FROM new_schema1.MOVIE, new_schema1.USER_PROFILE,  
     new_schema1.GENRE  
     INNER JOIN new_schema1.user_profile  
         ON new_schema1.MOVIE.Movie_ID =  
            new_schema1.user_profile.MOVIE_LastWatched  
     INNER JOIN new_schema1.GENRE  
         ON new_schema1.MOVIE.Movie_ID =  
            new_schema1.GENRE.MOVIE_Movie_ID  
WHERE new_schema1.MOVIE.Movie_ID <>  
       new_schema1.user_profile.MOVIE_LastWatched  
       AND new_schema1.GENRE.Genre_ID =  
          new_schema1.user_profile.GENRE_PREFERREDGenre_ID
```


Executable SQL Code for Use Cases

#Case 3

```
SELECT distinct Theatre_ID,  
               Theatre_Location,  
               Movie_Title  
FROM   new_schema1.theatre,  
       new_schema1.screening,  
       new_schema1.movie,  
       new_schema1.theatre_has_screening  
WHERE  new_schema1.screening.Screening_ID=  
       new_schema1.theatre_has_screening.SCREENING_Screening_ID  
AND    new_schema1.screening.MOVIE_Movie_ID=new_schema1.movie.Movie_ID  
AND    new_schema1.theatre.Theatre_ID = '1'
```

Executable SQL Code for Use Cases

#Case 4

```
SELECT DISTINCT Theatre_ID, Movie_Title, IMDB_Score,  
               Screening_Start_Time  
FROM new_schema1.movie, new_schema1.theatre,  
     new_schema1.Screening,  
     new_schema1.theatre_has_screening  
WHERE new_schema1.Movie.Movie_ID =  
       new_schema1.Screening.MOVIE_Movie_ID  
AND new_schema1.Theatre.Theatre_ID =  
     new_schema1.theatre_has_screening.THEATRE_Theatre_ID  
AND new_schema1.Movie.IMDB_Score > '7'
```