Movie Informatics

Team Members :

- Y.Eeswar (22CSB0A31)
- V.Sandilya (22CSB0A18)

Problem Statement :

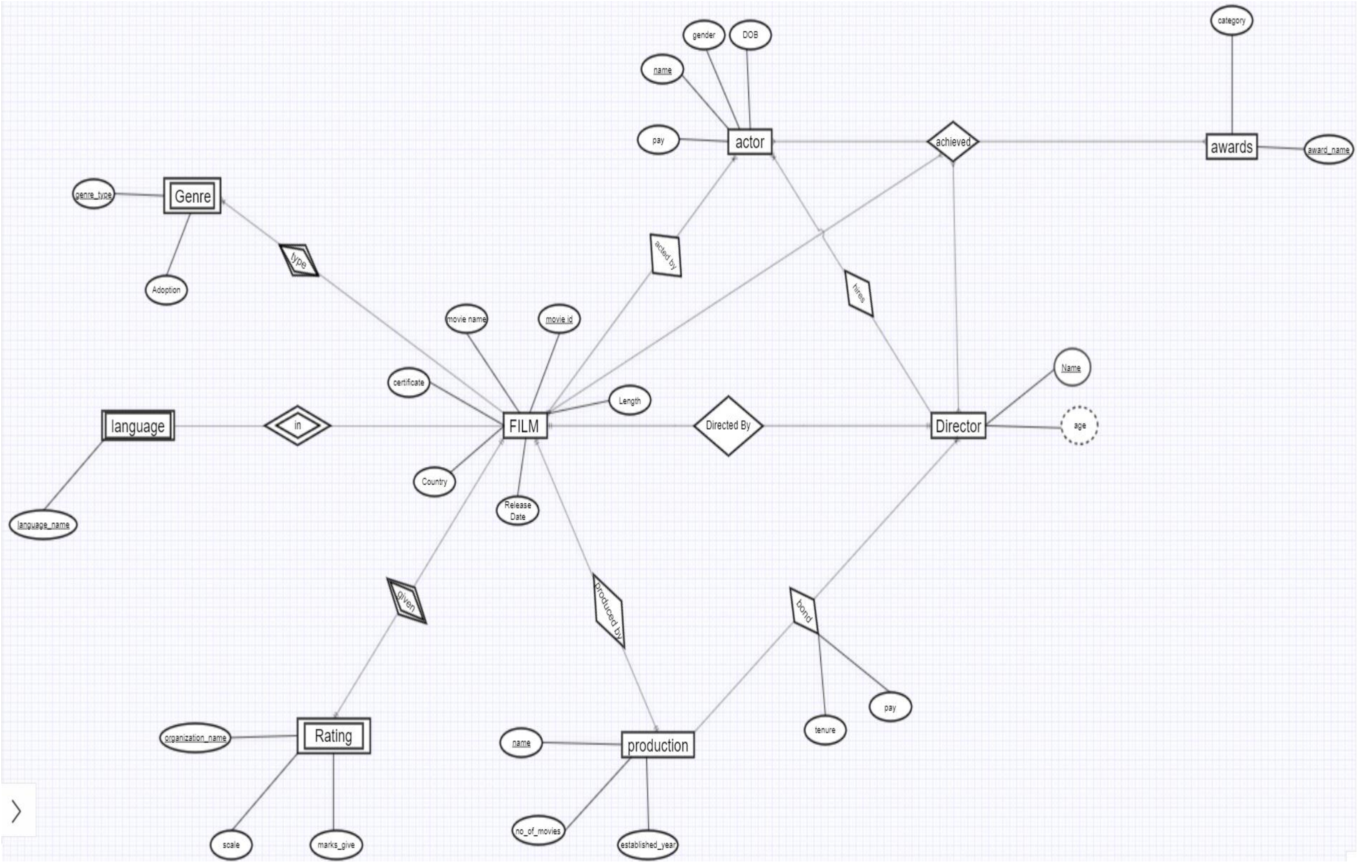
- The main motive of this project is to provide information regarding movies. Users can easily obtain data regarding movies . This project aims to deliver data regarding ratings and reviews of movies by various organizations.

Specifications of Database :

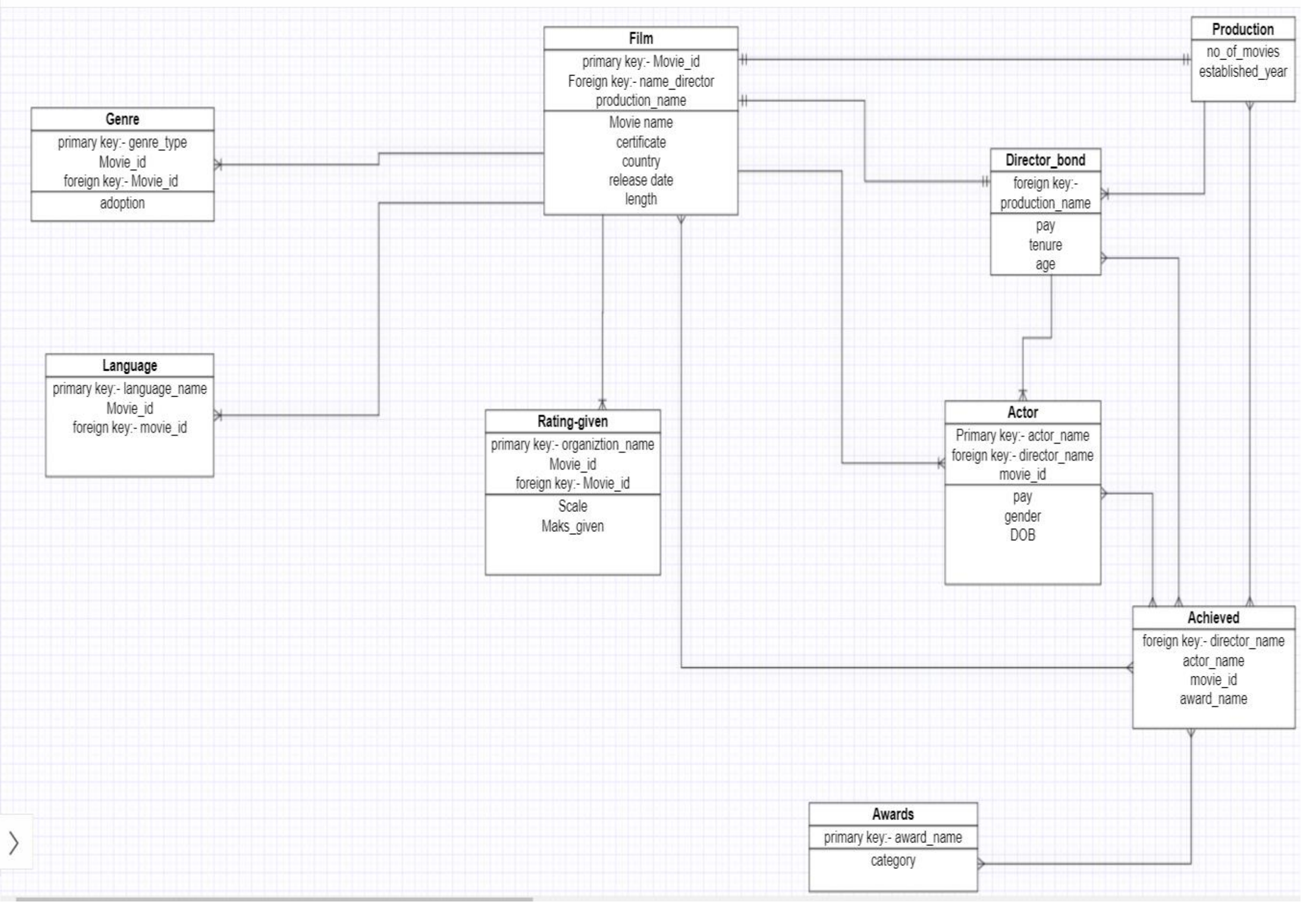
- The system stores the generic information about movies like the language, time duration, genres, rating given by various rating authorities. This provides the user with better choice of movie selection and viewership. This can also help the recommendation systems to provide better results based on search history of the person.
- It also stores the various actors in it, the direction mastermind, production house and awards won by them. This provides the user the variety to choose movies based on famous actors or their favourite personal and provides info about the film and actors.

Contents :

ER Diagram of Movie Database :



Relational Diagram :



Dependencies and Normalization :

Film :

- The functional Dependencies are movie_id → movie_name,Release date,length,certificate,country,adoption
- All are fully dependent on primary key
- The table is in BCNF

Production :

- The functional Dependencies are production_name→ established, no_of_movies
- All are fully dependent on primary key
- The table is in BCNF

Director :

- The functional Dependencies are director_name → production_name,age,pay,tenure
- All are fully dependent on primary key
- The table is in BCNF

Actors :

- The functional Dependencies are actor_name→ movie_id,pay,gender,DOB,director_name
- All are fully dependent on primary key
- The table is in BCNF

Rating :

- The functional Dependencies are organisation_name, movie_id→ scale,marks_given
- All are fully dependent on primary key
- The table is in BCNF

Languagee :

- The functional Dependencies are lang,movie_id→ lang,movie_id
- All are fully dependent on primary key
- The table is in BCNF & It is a trivial case

Genre :

- The functional Dependencies are genre_type,movie_id→ adoption
- All are fully dependent on primary key
- The table is in BCNF

Award :

- The functional Dependencies are award_name→ category
- All are fully dependent on primary key
- The table is in BCNF

Achieved:

- All are Trivial Functional Dependencies
- Hence , The table is in BCNF

SQL Implementation :

Tables Creation :

```
CREATE TABLE production

(

no_of_movies int,

established int,

production_name varchar(255),

primary key(production_name)

);


CREATE TABLE director

(

director_name varchar(255),

age int,

production_name VARCHAR(255),

pay int,

tenure int,

primary key(director_name),

foreign key(production_name) REFERENCES
production(production_name)

);


CREATE TABLE film

(

movie_id int,

release_date date,

lengthh float,

movie_name varchar(255),

certificatee varchar(255),
country varchar(255),
director_name varchar(255),
production_name varchar(255),
primary key(movie_id),
FOREIGN KEY (director_name) REFERENCES
director(director_name),
FOREIGN KEY (production_name) REFERENCES
production(production_name)
);

CREATE TABLE actors
(
actor_name varchar(255),
movie_id int,
pay int,
gender varchar(255),
DOB int,
director_name varchar(255),
primary key(actor_name),
foreign key(movie_id) REFERENCES film(movie_id),
foreign key(director_name) REFERENCES director(director_name)
);

CREATE TABLE rating
(
organisation_name varchar(255),
movie_id int,
scale int,
marks_given int,
primary key(organisation_name,movie_id),
foreign key(movie_id) REFERENCES film(movie_id)
```

```
);

CREATE TABLE languagee
(
lang varchar(255),
movie_id int,
primary key(lang,movie_id),
foreign key(movie_id) REFERENCES film(movie_id)
);

CREATE TABLE genre
(
genre_type varchar(255),
movie_id int,
adoption VARCHAR(255),
primary key(genre_type,movie_id),
foreign key(movie_id) REFERENCES film(movie_id)
);

CREATE TABLE award
(
award_name varchar(255),
category varchar(255),
primary key(award_name)
);

CREATE TABLE achieved
(
director_name varchar(255),
actor_name varchar(255),
movie_id int,
award_name VARCHAR(255),
foreign key(director_name) REFERENCES director(director_name),
foreign key(actor_name) REFERENCES actors(actor_name),
foreign key(movie_id) REFERENCES film(movie_id),
foreign key(award_name) REFERENCES award(award_name)
);
```

Inserting Data :

```
INSERT INTO film VALUES( 1,'2019-05-07',
2.5,'RRR','U','India','Rajamouli','Great arts');

INSERT INTO film VALUES( 2,'2004-03-03',
3,'Avatar','U','USA','James Cameron','TSG entertainment');

INSERT INTO film VALUES( 3,'1998-05-06',
2,'Titanic','A','UK','James Cameron','Paramount pictures');

INSERT INTO film VALUES( 4,'2024-07-07',
2.5,'Mad','U','India','Krishna Ramulu','aarathi pictures');

INSERT INTO film VALUES( 5,'2008-08-08',
3.5,'Salaar','A','India','Prashanth Neel','Hombale
productions');


INSERT INTO director VALUES( 'Rajamouli',55 ,null,null ,null
);

INSERT INTO director VALUES( 'James Cameron',60 ,'TSG
entertainment',5000000 , 5);

INSERT INTO director VALUES( 'Krishna Ramulu',42 ,'aarathi
pictures', 500000,5 );

INSERT INTO director VALUES( 'Prashanth Neel',51 ,'Hombale
productions',4000000 ,5 );


INSERT INTO genre VALUES('historic',1,'historic records');

INSERT INTO genre VALUES('fiction',2,null);

INSERT INTO genre VALUES('romantic',3,'historic records');

INSERT INTO genre VALUES('comedy',4,null);
INSERT INTO genre VALUES('fiction',5,null);

INSERT INTO languagee VALUES('hindi',1);
INSERT INTO languagee VALUES('english',2);
INSERT INTO languagee VALUES('english',3);
INSERT INTO languagee VALUES('telugu',4);
INSERT INTO languagee VALUES('kanadda',5);

INSERT INTO rating VALUES('imdb', 1,10 ,9 );
INSERT INTO rating VALUES('imdb', 2,10 , 8.9);
INSERT INTO rating VALUES('rotten tomato',3 ,5 ,9.4 );
INSERT INTO rating VALUES('rotten tomato',4 ,5 , 8.2);
INSERT INTO rating VALUES('rotten tomato',5 ,5 ,8.7 );

INSERT INTO production VALUES( 10, 2019,'Great arts');
INSERT INTO production VALUES( 15,2015 ,'TSG entertainment');
INSERT INTO production VALUES( 92,1991 ,'Paramount pictures');
INSERT INTO production VALUES( 12,2020 ,'aarathi pictures');
INSERT INTO production VALUES( 6, 2021,'Hombale productions');

INSERT INTO actors VALUES('NTR', 1,50000000 ,'M',1984 ,'Rajamouli');
INSERT INTO actors VALUES('Ram',1 ,50000000 ,'M',1988 ,'Rajamouli');
INSERT INTO actors VALUES('Jack', 2, 100000000,'M',1980 ,'James Cameron');
INSERT INTO actors VALUES('Emily',2 ,180000000 ,'F',1977 ,'James Cameron');
INSERT INTO actors VALUES('Leonardo Di Caprio', 3,120000000 ,'M',1972 ,'James Cameron');
INSERT INTO actors VALUES('Rose',3 ,80000000 ,'F',1971 ,'James Cameron');
INSERT INTO actors VALUES('Siddarth',4 ,20000000 ,'M',1995
,'Krishna Ramulu');

INSERT INTO actors VALUES('Prabhas', 5,120000000 ,'M',1972
,'Prashanth Neel');


INSERT INTO achieved VALUES('James Cameron',null, 2,'Best
Director');

INSERT INTO achieved VALUES(null,'Leonardo Di Caprio',2 ,'Best
male actor');

INSERT INTO achieved VALUES(null,null, 3,'Best VFX');

INSERT INTO achieved VALUES(null,null,5 ,'Best action award');


INSERT INTO award VALUES('Best Director','Director');

INSERT INTO award VALUES('Best male actor','actor');

INSERT INTO award VALUES('Best VFX','Animation');

INSERT INTO award VALUES('Best action
award','Cinematography');
```