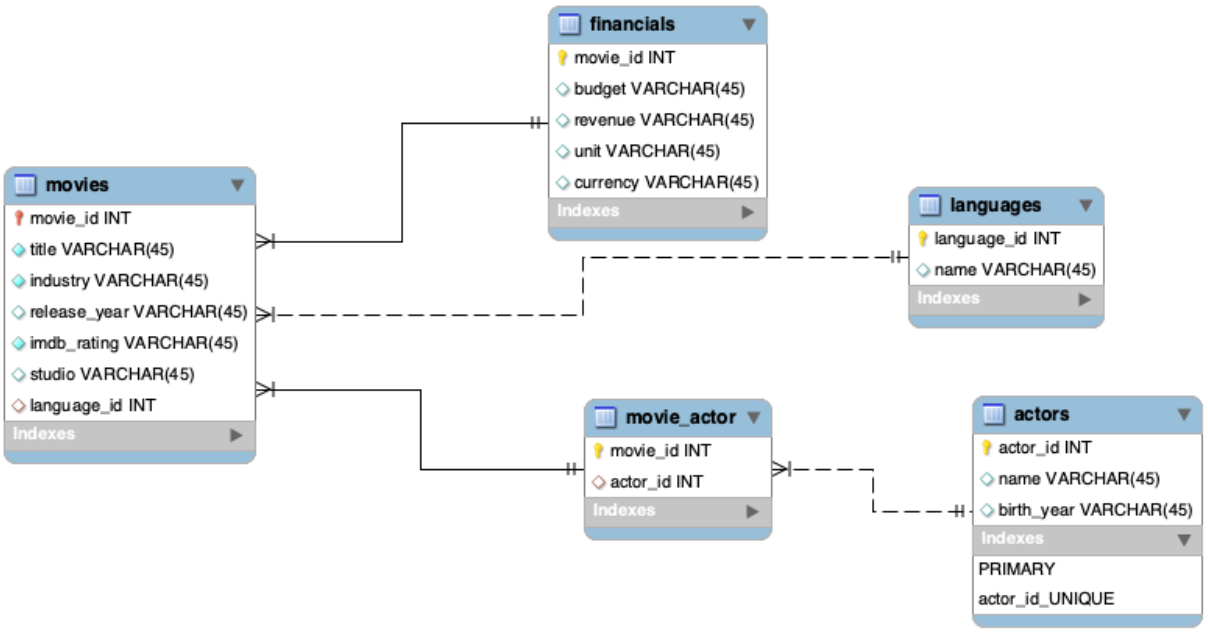
- **Entity-Relationship Diagram showing tables normalized to 3rd Normal Form**.



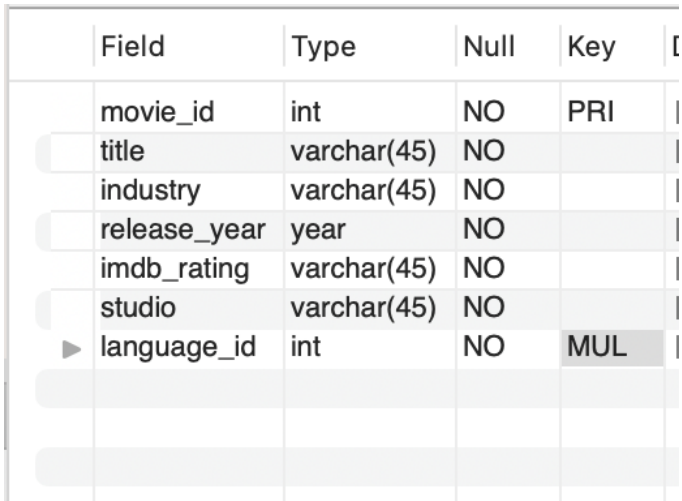
- Created SQL database schema for PDA (movies)
- Created tables and relations between the tables.

```
7
8  CREATE TABLE languages (
9  language_id INT NOT NULL,
10 Name VARCHAR(45) NOT NULL,
11 PRIMARY KEY (language_id));
12
13
14 CREATE TABLE financials (
15 movie_id INT NOT NULL,
16 budget VARCHAR(45) NOT NULL,
17 revenue VARCHAR(45) NOT NULL,
18 unit VARCHAR(45) NOT NULL,
19 currency VARCHAR(45) NOT NULL,
20 PRIMARY KEY (movie_id));
21
```

```sql
CREATE TABLE movie_actor (
movie_id INT NOT NULL,
actor_id INT NOT NULL,
PRIMARY KEY (movie_id),
FOREIGN KEY (actor_id) REFERENCES
actors (Actor_id)
);

CREATE TABLE movies (
movie_id INT NOT NULL,
title VARCHAR(45)NOT NULL,
industry VARCHAR(45) NOT NULL,
release_year YEAR NOT NULL,
imdb_rating VARCHAR(45) NOT NULL,
studio VARCHAR(45) NOT NULL,
language_id INT NOT NULL,
PRIMARY KEY (movie_id),
FOREIGN KEY (movie_id) REFERENCES
financials (movie_id),
FOREIGN KEY (language_id) REFERENCES
languages (language_id)
);
```

- Created movies table and the relation. Used describe movies; to show the result.



Field	Type	Null	Key
movie_id	int	NO	PRI
title	varchar(45)	NO	
industry	varchar(45)	NO	
release_year	year	NO	
imdb_rating	varchar(45)	NO	
studio	varchar(45)	NO	
language_id	int	NO	MUL

- Created actors table and the relation. Used describe actors; to show the result

Field	Type	Null	Key
actor_id	int	NO	PRI
name	varchar(45)	YES	
birth_year	varchar(45)	YES	

- Created languages table and the relation. Used describe languages; to show the result

Field	Type	Null	Key
language_id	int	NO	PRI
name	varchar(45)	YES	

- Created financials table and the relation. Used describe financials; to show the result

Field	Type	Null	Key
movie_id	int	NO	PRI
budget	varchar(45)	NO	
revenue	varchar(45)	NO	
unit	varchar(45)	NO	
currency	varchar(45)	NO	

- Created movie_actor table and the relation. Used describe movie_actor; to show the result.

Field	Type	Null	Key
movie_id	int	NO	PRI
actor_id	int	NO	MUL

- Used INSERT command to Insert the rows into the columns.

```
79 •  INSERT INTO financials (movie_id, budget, revenue, unit, currency)
80    VALUES (101, 1, 12.5, 'Billions', 'INR'),
81    (102, 200, 954.8, 'Millions', 'USD'),
82    (103, 165, 644.8, 'Millions', 'USD'),
83    (104, 180, 854, 'Millions', 'USD'),
84    (105, 250, 670, 'Millions', 'USD');
85
86 •  SELECT * from financials;
```

0% 26:86 1 error found

Result Grid Filter Rows: Search Edit: Export/Import:

movie_id	budget	revenue	unit	currency
101	1	12.5	Billions	INR
102	200	954.8	Millions	USD
103	165	644.8	Millions	USD
104	180	854	Millions	USD
105	250	670	Millions	USD
NULL	NULL	NULL	NULL	NULL

- Inserted rows into actors table and below is the query.

```
88 •  INSERT INTO actors (actor_id, name, birth_year)
89    VALUES (50, 'Yash', '1986'),
90    (51, 'Sanjay Dutt', '1959'),
91    (52, 'Benedict Cumberbatch', '1976'),
92    (53, 'Elizabeth Olsen', '1989'),
93    (54, 'Chris Hemsworth', '1983');
94
95 •  SELECT * from actors;
96
```

0% 1:96 1 error found

Result Grid Filter Rows: Search Edit: Export/Import:

actor_id	name	birth_year
50	Yash	1986
51	Sanjay Dutt	1959
52	Benedict Cumberbatch	1976
53	Elizabeth Olsen	1989
54	Chris Hemsworth	1983
NULL	NULL	NULL

- Inserted rows into languages table and below is the query.

```
97 •  INSERT INTO languages (language_id, name)
98    VALUES (1, 'Hindi'),
99    (2, 'Telugu'),
100   (3, 'Kannada'),
101   (4, 'Tamil'),
102   (5, 'English');
103
104 •  SELECT * from languages;
```

00% 25:104 1 error found

Result Grid Filter Rows: Search Edit:

language_id	name
1	Hindi
2	Telugu
3	Kannada
4	Tamil
5	English