WOW for International Movies Database
Assignment (6)

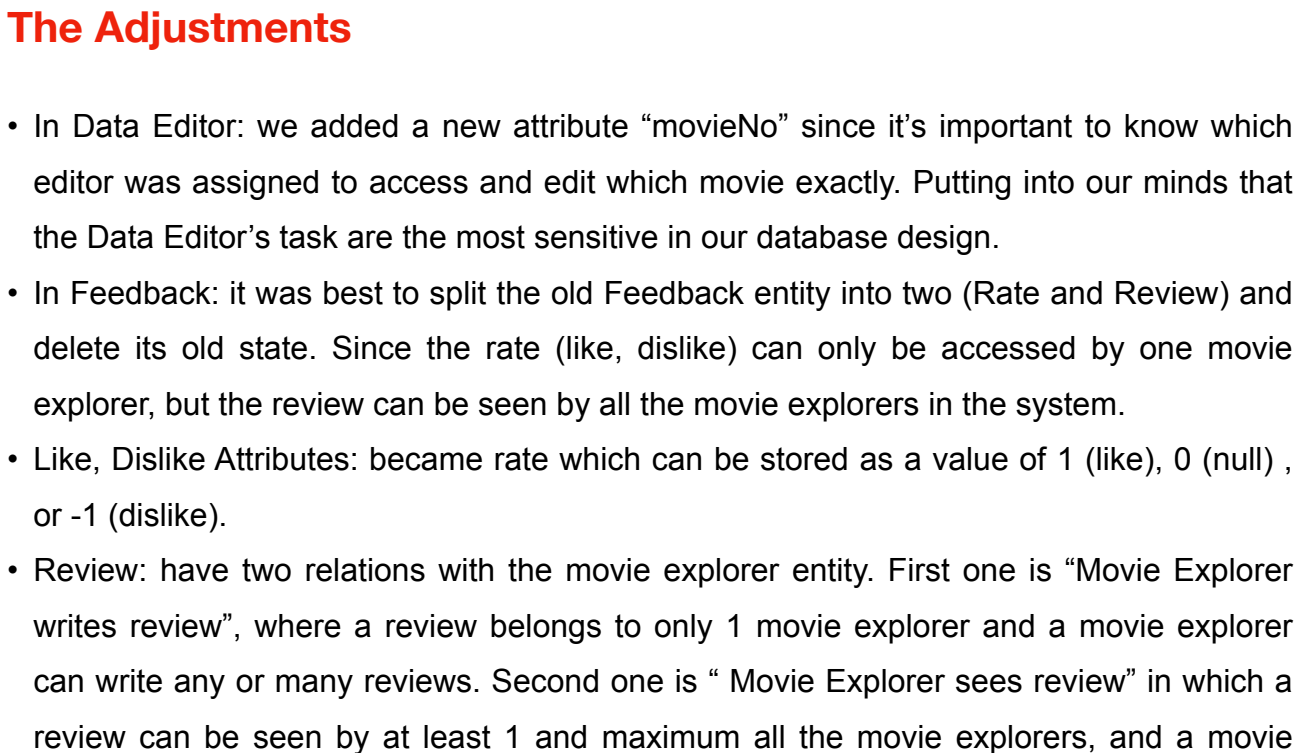Nahide Sena Sabırlı 20091000020

Fatma Ceren Çil 20091000009

Sedef Nur Uğurlu 20091000058

Elif Naz Kadayıfçı 20091000038

Rawan Ibrahim Mohamed ElShenieky 21091000188

Date: 16th of May 2023

Before applying the normalization process we have applied some adjustments to our structure provided in last assignment. The adjustments are based on the doctor's notes as well as additions we thought was important. Therefore, our ER diagram before going through any of the normalization forms is this:

The Adjustments

- In Data Editor: we added a new attribute "movieNo" since it's important to know which editor was assigned to access and edit which movie exactly. Putting into our minds that the Data Editor's task are the most sensitive in our database design.
- In Feedback: it was best to split the old Feedback entity into two (Rate and Review) and delete its old state. Since the rate (like, dislike) can only be accessed by one movie explorer, but the review can be seen by all the movie explorers in the system.
- Like, Dislike Attributes: became rate which can be stored as a value of 1 (like), 0 (null) , or -1 (dislike).
- Review: have two relations with the movie explorer entity. First one is "Movie Explorer writes review", where a review belongs to only 1 movie explorer and a movie explorer can write any or many reviews. Second one is " Movie Explorer sees review" in which a review can be seen by at least 1 and maximum all the movie explorers, and a movie

explorer can see 0 (if there's no reviews at all) or infinitely many reviews. The entity also has a relation with the movie entity by a 1 to many "Movie has review" relationship.

Original Tables View

Data Editor Table

Name	No (PK)	Password	E-mail	MovieNO
Sedef Nur	20091000058	sedef34	20091000058@ogr.halic.edu.tr	M1,M2
Rawan	21091000188	RaWan421	21091000188@ogr.halic.edu.tr	M2
Fatma Ceren	20091000009	ceren9898	20091000009@ogr.halic.edu.tr	M3
Nahide Sena	20091000020	nss78	20091000020@ogr.halic.edu.tr	M4
Elif Naz	20091000038	elif4627	20091000038@ogr.halic.edu.tr	M5

Fig 6.2

Broadcast Manager Table

Name	No (PK)	Password
Amazon Prime	7	8965
Disney Plus	8	9658

Movie Explorer Table

Name	No (PK)	Password
Jim Film	6	9898
Adam	9	7855
Marissa	10	54545

Movie Table

movieName	movieNo (PK)	genre	releaseYear	duration	summary	country	soundtrack	similarMovies	IMDBRating	maturityRating	castNo
World War Z	M1	Action, Adventure, Horror	2013	116	https://en.wikipe	USA	Muse Isolated System		7	13+	C1
Bird Box	M2	Horror, Science fiction	2018	124	https://en.wikip	USA	https://www.youtube.com/watch?v=		6,6	15+	C2
Inside Out	M3	Animation	2015	95	https://en.wikip	USA	https://www.youtube.com/watc		8,1	6+	C3
Operation Fortune	M4	Action, Comedy	2023	114	https://en.wikip	USA, Turkey	https://www.youtube.com/watc		6,3	10+	C4
The Whale	M5	Drama	2022	116	https://en.wikiped	USA	https://www.youtube.com/watch?v=		7,7	PG-13	C5
Spencer	M6	Drama	2021	111	https://en.wikiped	England	https://www.youtube.com/watch?v=		6,6	18+	C6

Rest of Movie Table's Columns

actorName	profit	awardName
Brad Pitt, Mireille Enos	$190–269 millio	Golden Schmoes Awards
Sandra Bullock,Trevante Rhodes	$45 million	Artios Awards
Amy Poehler,Meg Ryan	$858.8 million	People's Choice Awards
Jason Statham,Hugh Grant	$37.6 million	Null
Brendan Fraser, Sadie Sink	$3 million	Null
Kristen Stewart, Jack Farthing	$5 million	Null

Fig 6.3

First Normal Form
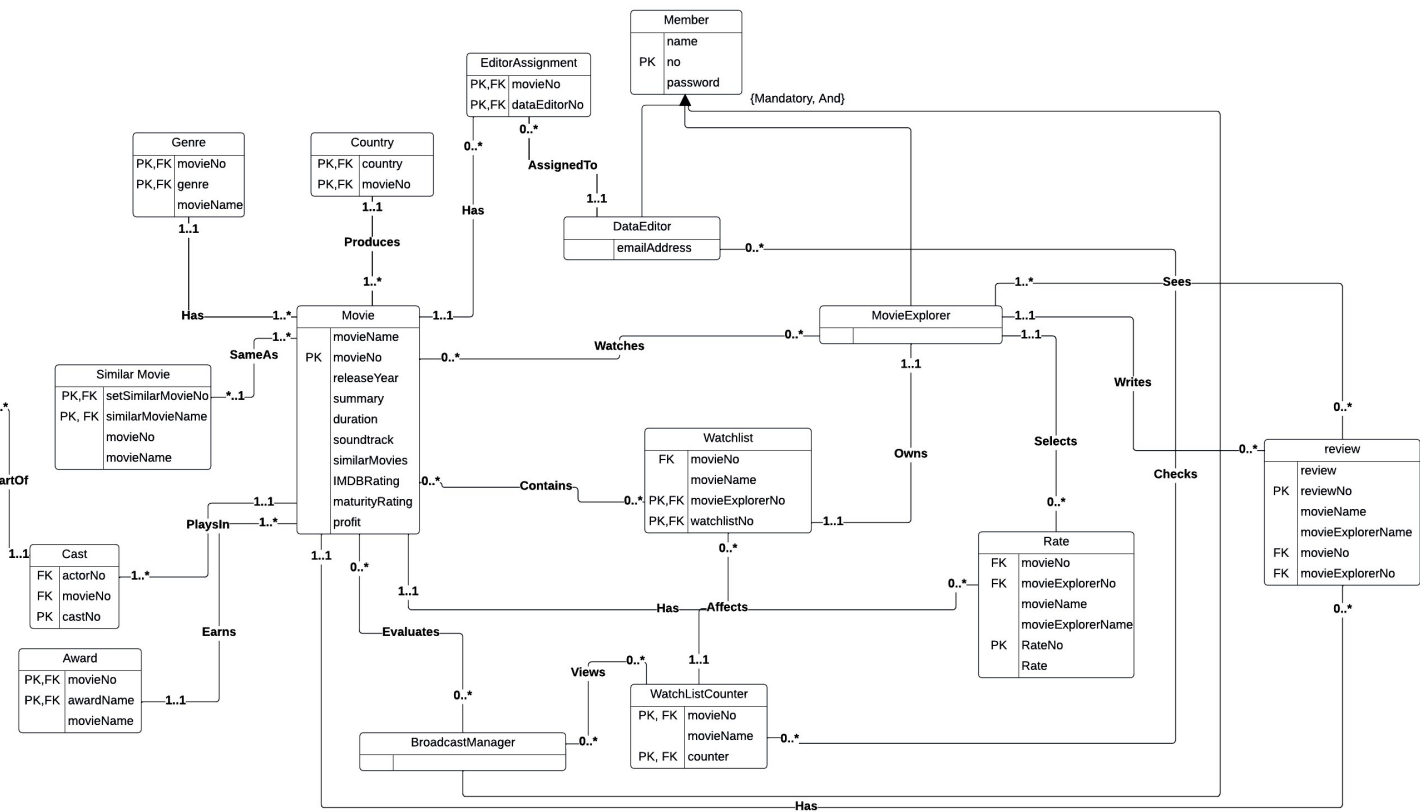
Adjustments:

- Deducted the "genre" and "country" attributes from "Movie" table and created their separate entities respectively

- Deducted "awardName" "actorName" and "castNo" from "Movie" table since there were already entities for those attributes. ("Award", "Actor", and "Cast")

- Made "Similar Movie" entity be a strong one instead of weak like its original state.

- Added Composite keys in "Genre", "Country", "Watchlist", "WatchlistCounter", and "SimilarMovie"

- Changed some of the degrees of the relations based on the changes applied.

- Created a new entity "Editor Assignment" in order to resolve the many to many relationship and for linking the movies accessed by the data editor.

1NF Tables View

Data Editor Table

Name	No	Password	E-mail
	PK		
Sedef Nur	20091000058	sedef34	20091000058@ogr.halic.edu.tr
Rawan	21091000188	RaWan421	21091000188@ogr.halic.edu.tr
Fatma Ceren	20091000009	ceren9898	20091000009@ogr.halic.edu.tr
Nahide Sena	20091000020	nss78	20091000020@ogr.halic.edu.tr
Elif Naz	20091000038	elif4627	20091000038@ogr.halic.edu.tr

Fig 6.2 (Updated)

EditorAssignment

No	MovieNO
PK,FK	PK,FK
20091000058	M1
20091000058	M2
21091000188	M2
20091000009	M3
20091000020	M4
20091000038	M5

Movie Table

movieName	movieNo	releaseYear	duration	summary	soundtrack	IMDBRating	maturityRating	profit
	PK							
World War Z	M1	2013	116	https://en.wikipedia.	Muse Isolated S	7	13+	$190–269 million
Bird Box	M2	2018	124	https://en.wikipedi	https://www.youtu	6,6	15+	$45 million
Inside Out	M3	2015	95	https://en.wikipedi	https://www.yo	8,1	6+	$858.8 million
Operation Fo	M4	2023	114	https://en.wikipedi	https://www.yo	6,3	10+	$37.6 million
The Whale	M5	2022	116	https://en.wikipedi	https://www.yo	7,7	PG-13	$3 million
Spencer	M6	2021	111	https://en.wikipedi	https://www.yo	6,6	18+	$5 million

Fig 6.3 (Updated)

Similar Movie Table

movieNo	movieName	setSimilarMovieNo	similarMovieName
		PK, FK	PK,FK
M1	World War Z	SSM1	Greenland
M1	World War Z	SSM1	The Quiet Place
M2	Bird Box	SSM2	The Quiet Place
M2	Bird Box	SSM2	World War Z
M4	Operation Fortune	SSM4	Red Notice
M4	Operation Fortune	SSM4	Charlie's Angels
M5	The Whale	SSM5	Gifted
M6	Spencer	SSM6	The Princess

MovieGenre

PK,FK	PK,FK	
movieNo	**genre**	**Movie Name**
M1	Action	World War Z
M1	Adventure	World War Z
M1	Horror	World War Z
M2	Horror	Bird Box
M2	Science Fiction	Bird Box
M3	Animation	Inside Out
M4	Action	Operation Fortune
M4	Comedy	Operation Fortune
M5	Drama	The Whale
M6	Drama	Spencer

MovieCountry

PK,FK	PK,FK	
Country	**movieNo**	**Movie Name**
USA	M1	World War Z
USA	M2	Bird Box
USA	M3	Inside Out
USA	M4	Operation Fortune
Turkey	M4	Operation Fortune
USA	M5	The Whale
England	M6	Spencer

Cast

FK,PK	FK,PK	
movieNo	**actorNumber**	**actorNumber**
M1	A1	A1
M1	A2	A2
M2	A3	A3
M2	A4	A4
M3	A5	A5
M3	A6	A6
M4	A7	A7
M4	A8	A8
M5	A9	A9
M5	A10	A10
M6	A11	A11
M6	A12	A12

Actor

	PK
actorName	**actorNumber**
Brad pitt	A1
Mireille Enos	A2
Sandra Bullock	A3
Trevante Rhodes	A4
Amy Poehler	A5
Meg Ryan	A6
Jason Statham	A7
Hugh Grant	A8
Brendan Fraser	A9
Sadie Sink	A10
Kristen Stewart	A11
Jack Farthing	A12

Review

	FK		PK
movieExplorerName	**movieNo**	**review**	**reviewNo**
Jim Film	M1	Some really great action pieces with absolutely nothing to hold it together in between both narratively and emotionally. A lot worse than I remember, although I was like 13 when this came out so of course I would have loved this.	R1
Adam	M1	A very different angle has been brought to the apocalypse scenarios. It was definitely a good movie. The movie managed to keep me curious until the last minute.	R2
Jim Film	M1	it's unfortunate that i'm 19 now and still have a tragic vampire romance island	R3
Marissa	M2	Love it!!	R4
Adam	M3	I am the Happy one xoxo	R5
Jim Film	M4	did anything happen?	R6
Marissa	M5	I love the post-credit-scene where Dr. Evil calls Brendan Fraser and says: "I have a job for you"	R7
Marissa	M6	Kristen Stewart is again accepted into a family of blood sucking demons, this time with horrific consequences!	R8

Award

movieName	movieNo (PK,FK)	awardName (PK,FK)
World War Z	M1	Golden Schmoes Awards
World War Z	M1	Teen Choice Awards
Bird Box	M2	Visual Effects Society Awards
Bird Box	M2	Artios Awards
Inside out	M3	People's Choice Awards
Operation Fortune	M4	Null
The Whale	M5	Null
Spencer	M6	Null

Rate Table

movieNo (FK)	movieName	movieExplorerNo (FK)	movieExplorerName	rate	rateNo (PK)
M1	World War Z	6	Jim Film	-1	1
M2	Bird Box	9	Adam	1	2
M6	Spencer	10	Marissa	-1	3

Review

movieExplorerName	movieNo (FK)	review	reviewNo (PK)	movieName	movieExplorerNo (FK)
Jim Film	M1	Some really great action pieces with absolutely nothing to hold it together in between both narratively and emotionally. A lot worse than I remember, although I was like 13 when this came out so of course I would have loved this.	R1	World War Z	6
Adam	M1	A very different angle has been brought to the apocalypse scenarios. It was definitely a good movie. The movie managed to keep me curious until the last minute.	R2	World War Z	9
Jim Film	M1	it's unfortunate that i'm 19 now and still have a tragic vampire romance island	R3	World War Z	10
Marissa	M2	Love it!!	R4	Bird Box	6
Adam	M3	I am the Happy one xoxo	R5	Inside Out	9
Jim Film	M4	did anything happen?	R6	Operation Fortune	10
Marissa	M5	I love the post-credit-scene where Dr. Evil calls Brendan Fraser and says: "I have a job for you"	R7	The Whale	10
Marissa	M6	Kristen Stewart is again accepted into a family of blood sucking demons, this time with horrific consequences!	R8	Spencer	9

Second Normal Form
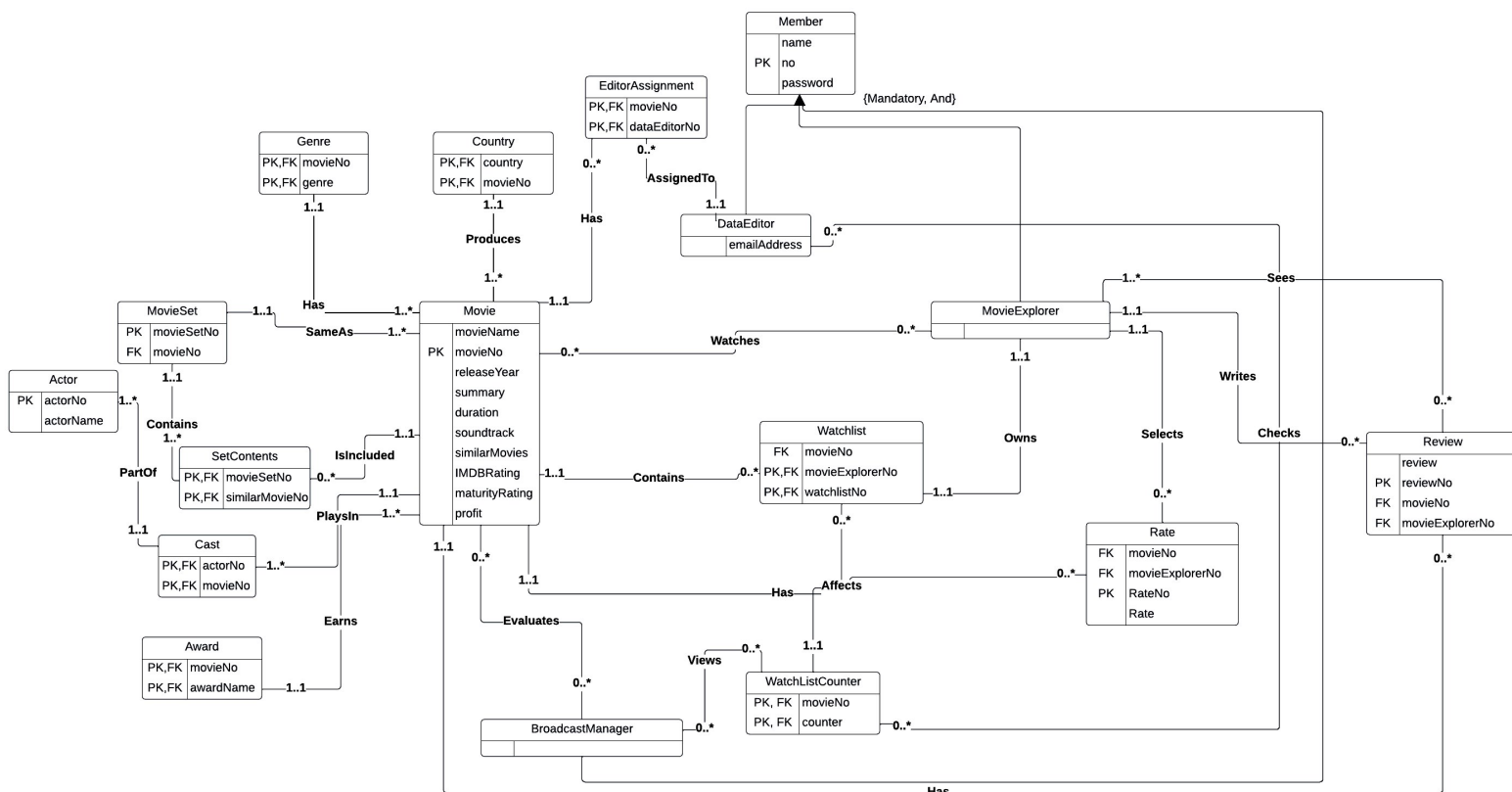
Adjustments:

- "Similar Movie" entity was replaced by 2 minor entities "Movie Set" and "SetContents".
- In "Movie Set": Each Movie is same as only 1 movie set, where a movie set can have many movies
- In "SetContents": Each Movie Set contains various set contents, but the set contents only belong to one movie set. At the same time a movie can only be included once in a set content, but a "set content" can have many movies.
- Removal of "moveName" attribute from "Award" "Genre" "Country" and many more
- Adjustments to relational degrees were applied.

NOTE: The actor table was not deleted because after research we found out that there can be 2 actors with the same name.
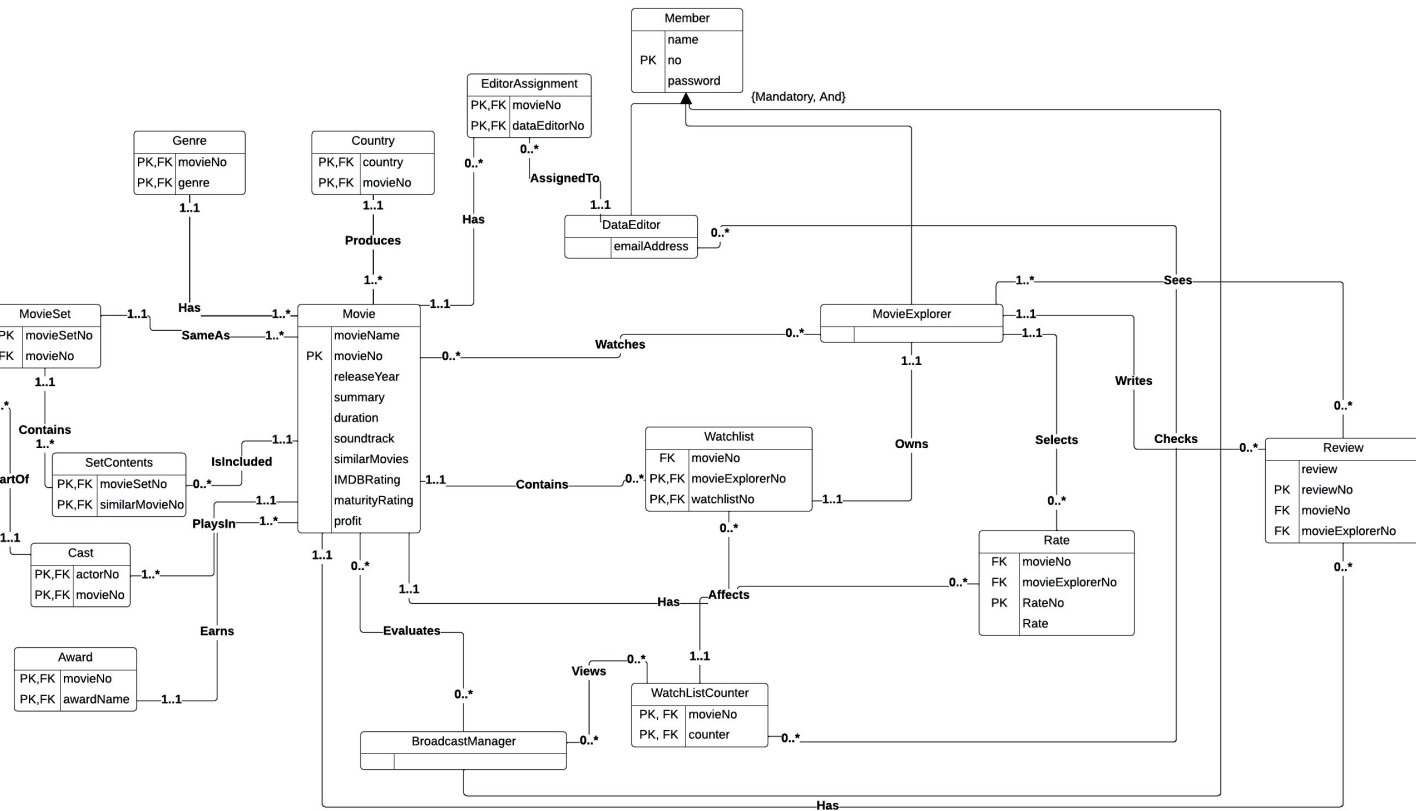
2NF Tables View

Genre

PK, FK	PK, FK
movieNo	**genre**
M1	Action
M1	Adventure
M1	Horror
M2	Horror
M2	Science Fiction
M3	Animation
M4	Action
M4	Comedy
M5	Drama
M6	Drama

Cast

PK,FK	PK,FK
movieNo	**actorNumber**
M1	A1
M1	A2
M2	A3
M2	A4
M3	A5
M3	A6
M4	A7
M4	A8
M5	A9
M5	A10
M6	A11
M6	A12

Country

PK,FK	PK,FK
Country	**movieNo**
USA	M1
USA	M2
USA	M3
USA	M4
Turkey	M4
USA	M5
England	M6

Award

PK, FK	PK, FK
movieNo	**awardName**
M1	Golden Schmoes Awards, Teen Choice Awards
M2	Visual Effects Society Awards, Artios
M3	People's Choice Awards
M4	Null
M5	Null
M6	Null

9

Third Normal Form

Notes

- There were no further adjustments that could have been applied in the third normal form
- The tables previewed in the tables view sections are only a sample to demonstrate how we thought as well as to mimic the steps in the book
- The "Rate" entity is not meant to be previewed by any other user other than the rate-giver himself. It is used to help selecting more relatable and interesting similar movies to the movie explorer based on his personal taste.
- For the overall project, there has been slight changes as we developed the database. For example, the Watchlist was only an attribute and of type boolean! However now it's an entity.
- Also, the project was inspired by these website: https://letterboxd.com/ and of course https://www.imdb.com/