

**At least 4 features' description, their corresponding query template, sampled queries, and expected output:**

1. Searching for movies based on movie attributes

- Title, Genre, rating (ex. 4 star and above), sort by start year (ex. Released at given year or after)

- Query through **TITLE** templates:

```
SELECT * FROM media WHERE originTitle = GIVEN_TITLE
```

- Sample queries:

```
SELECT * FROM media WHERE originTitle = "Titanic"
```

- Expected Output:

	titleID	originalTitle	genre	startYear	rating	numVotes
▶	ttc	Titanic	Romance	1997-03-03	9.3	14384

- Query through **GENRE** templates:

```
SELECT * FROM media WHERE genre = GIVEN_GENRE
```

- Sample queries:

```
SELECT * FROM media WHERE genre = "Drama"
```

- Expected Output:

	titleID	originalTitle	genre	startYear	rating	numVotes
▶	tgf	The Godfather	Drama	1972-05-16	9.5	11998
	tsr	The Shawshank Redemption	Drama	1994-06-07	9.8	17789

- Query through **RATING** templates:

```
SELECT * FROM media WHERE rating >= GIVEN_RATING
```

- Sample queries:

```
SELECT * FROM media WHERE rating >= 8.0
```

- Expected Output:

	titleID	originalTitle	genre	startYear	rating	numVotes
▶	gww	Gone With the Wind	Romance	1939-11-01	9.8	10923
	tdk	The Dark Knight	Action	2008-10-19	8.7	20912
	tgf	The Godfather	Drama	1972-05-16	9.5	11998
	tsr	The Shawshank Redemption	Drama	1994-06-07	9.8	17789
	ttc	Titanic	Romance	1997-03-03	9.3	14384

- Query through **STARTYEAR** templates:

```
SELECT * FROM media WHERE YEAR(startYear) >= GIVEN_YEAR  
ORDER BY startYear DESC
```

- Sample queries:

```
SELECT * FROM media WHERE YEAR(startYear) >= 1997  
ORDER BY startYear DESC
```

- Expected Output:

	titleID	originalTitle	genre	startYear	rating	numVotes
▶	tdk	The Dark Knight	Action	2008-10-19	8.7	20912
	ttc	Titanic	Romance	1997-03-03	9.3	14384

## 2. Modify the list of movies

- Edit fields or delete

- **EDIT** Query templates:

UPDATE Collection SET notes = GIVEN\_INFO WHERE  
collectionID = GIVEN\_ID

- Sample queries:

UPDATE Collection SET notes = "Not too bad" WHERE  
collectionID = "c0"

- Before Update

	collectionID	notes	isWatched	rating
▶	c0	Pretty good	1	8.9
	c1	Good	1	7.6

- Expected Output after Update

	collectionID	notes	isWatched	rating
▶	c0	Not too bad	1	8.9
	c1	Good	1	7.6

- **DELETE** Query templates:

DELETE FROM Collection WHERE collectionID = GIVEN\_ID

- Sample queries:

DELETE FROM Collection WHERE collectionID = "c1"

- Before Update

	collectionID	notes	isWatched	rating
▶	c0	Not too bad	1	8.9
	c1	Good	1	7.6

- Expected Output after Update

	collectionID	notes	isWatched	rating
▶	c0	Not too bad	1	8.9

## 3. Movie recommendations based on currently viewed movie

- Query templates:

```
SELECT * FROM media WHERE genre = GIVEN_VIEWED_GENRE AND
rating >= 8.5 AND titleID <> GIVEN_VIEWED_ID
```

- **Sample queries:**

```
SELECT * FROM media WHERE genre = "Romance" AND rating >=
8.5 AND titleID <> "ttc"
```

- **Expected Output:**

	titleID	originalTitle	genre	startYear	rating	numVotes
▶	gww	Gone With the Wind	Romance	1939-11-01	9.8	10923

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#### 4. View who worked on a movie and their other films

- **Query templates:**

```
SELECT * FROM Crew
    NATURAL JOIN Produced
    NATURAL JOIN Media
    WHERE crewID IN
        (SELECT crewID FROM Produced WHERE titleID =
        GIVEN_TITLE_ID)
```

```
SELECT * FROM Role
    NATURAL JOIN PlaysIn
    NATURAL JOIN Media
    WHERE roleID IN
        (SELECT roleID FROM PlaysIn WHERE titleID =
        GIVEN_TITLE_ID)
```

- **Sample queries:**

```
SELECT * FROM Crew
    NATURAL JOIN Produced
    NATURAL JOIN Media
    WHERE crewID IN
        (SELECT crewID FROM Produced WHERE titleID = "tgf")
```

```
SELECT * FROM Role
    NATURAL JOIN PlaysIn
    NATURAL JOIN Media
    WHERE roleID IN
        (SELECT roleID FROM PlaysIn WHERE titleID = "tgf")
```

- **Expected Output:**

	titleID	crewID	name	role	originalTitle	genre	startYear	rating	numVotes
▶	tgf	ffc	Francis Ford Coppola	Director	The Godfather	Drama	1972-05-16	9.5	11998

  

	titleID	roleID	name	characterName	originalTitle	genre	startYear	rating	numVotes
▶	tgf	2	Al Pacino	Michael Corleone	The Godfather	Drama	1972-05-16	9.5	11998
	tgf	3	Marlon Brando	Vito Corleone	The Godfather	Drama	1972-05-16	9.5	11998