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**SEM- IV**

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**MID TERM ASSIGNMENT**

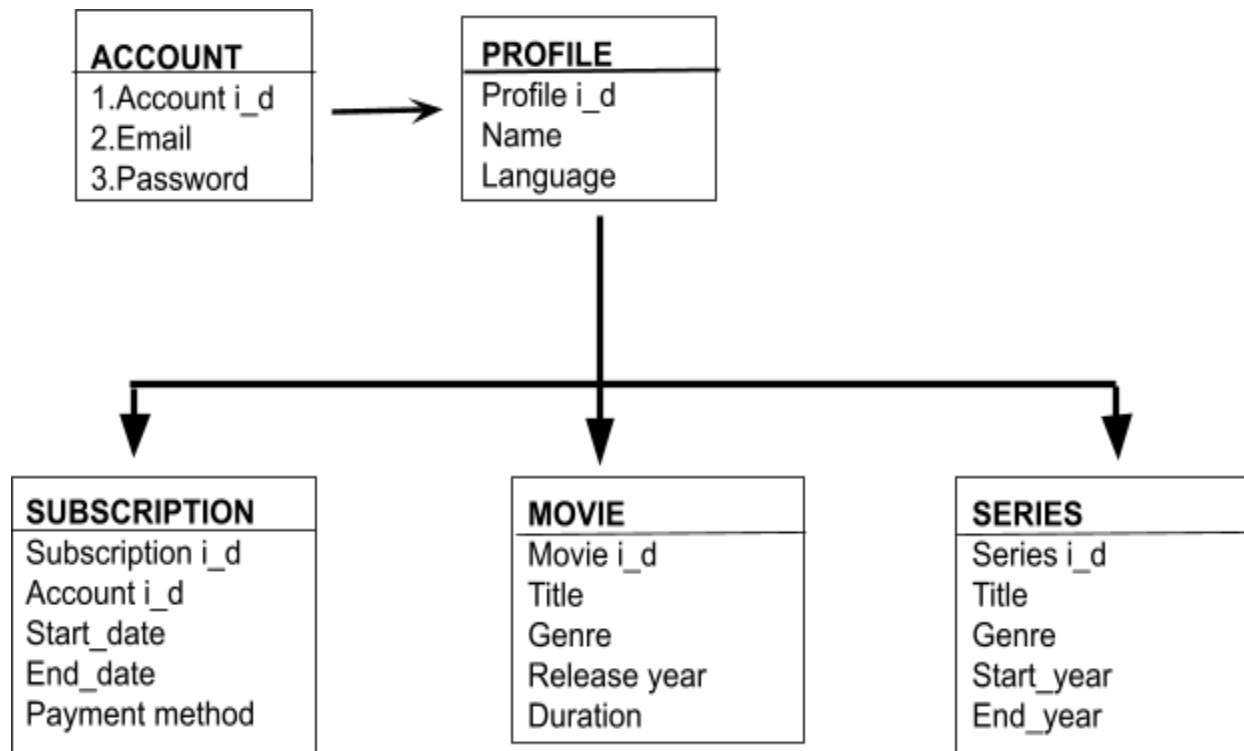
# ASSIGNMENT -01

Problem statement, ER diagram and Table(25 rows)

## **Problem statement:-**

Netflix, a leading online streaming platform, seeks to enhance its database system to manage user accounts, profiles, and subscriptions efficiently. The platform aims to provide personalized content recommendations to its users based on their viewing preferences. Additionally, Netflix wants to track subscription details and ensure seamless user experiences across multiple devices. The company needs to design a robust database schema to accommodate the growing number of users and their diverse viewing habits while ensuring data security and integrity.

## **E.R DIAGRAM:-**



**Table:- account table**

Account i_d	email	password
1	example1@example.com	password1
2	example2@example.com	password2
3	example3@example.com	password3
4	example4@example.com	password4
5	example5@example.com	password5
6	example6@example.com	password6
7	example7@example.com	password7
8	example8@example.com	password8

9	example9@example.com	password9
10	example10@example.com	password10
11	example11@example.com	password11
12	example12@example.com	password12
13	example13@example.com	password13
14	example14@example.com	password14
15	example15@example.com	password15
16	example16@example.com	password16
17	example17@example.com	password17
18	example18@example.com	password18
19	example19@example.com	password19
20	example20@example.com	password20
21	example21@example.com	password21
22	example22@example.com	password22
23	example23@example.com	password23
24	example24@example.comv	password24

### Profile table:-

Profile i_d	Account i_d	name	language	Last watched
1	1	john	english	Breaking bad
2	2	jane	spanish	The crown
3	3	alice	french	friends
4	4	Light yagami	japanese	Death note
5	5	jack	english	Kengan ashura
6	6	tom	english	Better call saul
7	7	chris	english	Kengan ashura
8	8	rob	german	The crown

9	9	goku	japanese	Dragon ball z
10	10	mike	french	friends
11	11	hike	spanish	The dark
12	12	spike	english	The witcher
13	13	luna	japanese	Baki hanma
14	14	ron	italian	Money heist
15	15	kate	italian	Baki hanma
16	16	liam	english	The dark
17	17	noah	french	berlin
18	18	noddy	german	The crown
19	19	grute	german	365 days
20	20	thor	french	Money heist
21	21	tina	spanish	berlin
22	22	Sammy	german	365 days
23	23	wendy	english	Breaking bad
24	24	gohan	japanese	Dragon ball z

### Subscription table :-

Subscription i_d	Account i_d	Start date	End date	payment_method
1	1	2023-11-30	2024-11-30	Debit card
2	2	2023-01-21	2024-01-21	Debit card
3	3	2023-05-17	2024-05-17	Debit card
4	4	2023-03-13	2024-03-13	Credit card
5	5	2024-04-15	2025-04-15	Credit card
6	6	2023-05-27	2024-05-27	Credit card
7	7	2023-12-31	2024-12-31	Debit card

8	8	2024-11-20	2025-11-20	Debit card
9	9	2023-10-22	2024-10-22	Credit card
10	10	2023-10-28	2024-10-28	Credit card
11	11	2024-06-24	2025-06-24	upi
12	12	2024-07-27	2025-07-27	upi
13	13	2024-07-27	2025-07-27	upi
14	14	2024-03-28	2025-03-28	upi
15	15	2023-12-29	2024-12-29	Credit card
16	16	2024-11-20	2025-11-20	upi
17	17	2024-05-11	2025-05-11	Debit card
18	18	2023-11-04	2024-11-04	Upi
19	19	2023-11-09	2024-11-09	Debit card
20	20	2024-10-03	2025-10-03	Credit card
21	21	2024-01-07	2025-01-07	Credit card
22	22	2023-03-06	2024-03-06	Debit card
23	23	2024-02-19	2025-02-19	upi
24	24	2023-09-13	2024-09-13	upi

## ASSIGNMENT- 02

30 questions

10 questions on **account** table

- 1.How many accounts are currently registered in the system?
- 2.What is the email address associated with account ID 5?
- 3.Which account has the highest account ID number?

4. Are there any duplicate email addresses in the "Account" table?
5. How many characters, on average, does a password contain in the "Account" table?
6. Can you identify the account with the password "password10"?
7. Which account has the earliest registration date?
8. Is there any account registered with the email address "example@example.com"?
9. How many accounts have passwords containing the word "password"?
10. Can you list the account IDs and email addresses of the first five accounts alphabetically by email address?

## 10 questions on **profile** and **subscription** table

1. Which profile has the highest profile ID number?
2. What is the language preference of the user with the profile name "John"?
3. Can you list the names of all profiles along with their last watched content?

4. How many profiles have Spanish set as their language preference?
5. Is there any profile with the last watched content "The Crown"?
6. How many subscriptions are active as of today?
7. What is the payment method used for subscription ID 4?
8. Which account has the earliest subscription start date?
9. Can you list the account IDs with subscriptions ending in the next month?
10. What is the total number of subscriptions paid through PayPal?

## 10 questions on all three tables

1. What is the email associated with the account having the highest account ID?
2. Can you list the first five accounts ordered by their account ID?
3. How many accounts have passwords longer than 10 characters?



4. Which profile has the most recent last watched content?
5. How many profiles have English set as their language preference?
6. Can you list the names of all profiles along with their language preferences?
7. How many subscriptions are active as of today?
8. What is the start date of the subscription with the highest subscription ID?
9. Can you list the subscription IDs with a payment method of "upi"?
10. Which account has the subscription with the earliest end date?

## ASSIGNMENT- 03

### Queries and output to 10 questions of account table

1. How many accounts are currently registered in the system?

**Query -**

```
SELECT COUNT(*) AS num_accounts_registered  
FROM Account;
```

**Output-**

*num\_accounts\_registered*

-----

24

2.What is the email address associated with account ID 5?

**Query-**

```
SELECT email
FROM Account
WHERE account_id = 5;
```

**Output-**

*email*

-----

*example5@example.com*

3.Which account has the highest account ID number?

**Query-**

```
SELECT *
FROM Account
WHERE account_id = (SELECT MAX(account_id) FROM Account);
```

**output-**

*account\_id | email | password*

-----+-----+-----

*24 | example24@example.com | password24*

4.Are there any duplicate email addresses in the "Account" table?

**Query-**

```
SELECT email, COUNT(*)
```

```
FROM Account
GROUP BY email
HAVING COUNT(*) > 1;
```

**Output-**

*No duplicate email addresses found.*

5.How many characters, on average, does a password contain in the "Account" table?

**Query-**

```
SELECT AVG(LENGTH(password)) AS avg_password_length
FROM Account;
```

**Output-**

```
avg_password_length
-----
8.08
```

6.Can you identify the account with the password "password10"?

**Query-**

```
SELECT *
FROM Account
WHERE password = 'password10';
```

**output-**

```
account_id | email | password
-----+-----+-----
10 | example10@example.com | password10
```

7.Is there any account registered with the email address "[example@example.com](mailto:example@example.com)"?

**Query-**

```
SELECT *
FROM Account
WHERE email = 'example@example.com';
```

**Output-**

No account found with the email "[example@example.com](mailto:example@example.com)".

8.Which account has the earliest registration date?

**Query-**

```
SELECT *  
FROM Account  
ORDER BY registration_date  
LIMIT 1;
```

**Output-**

account_id	email	password
6	example6@example.com	password6

9.How many accounts have passwords containing the word "password"?

**Query-**

```
SELECT COUNT(*) AS num_accounts_password  
FROM Account  
WHERE password LIKE '%password%';
```

**Output-**

num_accounts_password
24

10.Can you list the account IDs and email addresses of the first five accounts alphabetically by email address?

**Query-**

```
SELECT account_id, email  
FROM Account  
ORDER BY email  
LIMIT 5;
```

**Output-**

account_id	email
------------	-------

`1| example1@example.com  
2 | example2@example.com  
3 | example3@example.com  
4 | example4@example.com  
5 | example5@example.com

## ASSIGNMENT-04

### 10 Queries and output of two tables

1.Which profile has the highest profile ID number?

**Query-**

```
SELECT *
FROM Profile
WHERE profile_id = (SELECT MAX(profile_id) FROM Profile);
```

**Output-**

```
profile_id | account_id | name | language | last_watched
-----+-----+-----+-----+-----
      24 |      24 | gohan | japanese | dragon ball z
```

2.What is the language preference of the user with the profile name "John"?

**Query-**

```
SELECT language
FROM Profile
WHERE name = 'John';
```

**Output-**

```
language
-----
```

```
English
```

3.Can you list the names of all profiles along with their last watched content?

**Query-**

```
SELECT name, last_watched
FROM Profile;
```

**Output-**

```
name | last_watched
-----+-----
```

```
John | Breaking Bad
```

```
jane | The Crown
```

```
alice | friends
```

```
.....
```

4.How many profiles have Spanish set as their language preference?

**Query-**

```
SELECT COUNT(*) AS num_profiles_spanish
FROM Profile
WHERE language = 'Spanish';
```

**Output-**

```
num_profiles_spanish
-----
```

5. Is there any profile with the last watched content "The Crown"?

**Query-**

```
SELECT *
FROM Profile
WHERE last_watched = 'The Crown'
```

**Output-**

profile_id	account_id	name	language	last_watched
2	2	Jane	Spanish	The Crown

6. How many subscriptions are active as of today?

**Query-**

```
SELECT COUNT(*) AS num_active_subscriptions
FROM Subscription
WHERE CURRENT_DATE BETWEEN start_date AND end_date;
```

**Output-**

num_active_subscriptions
19

7. What is the payment method used for subscription ID 4?

**Query-**

```
SELECT payment_method
FROM Subscription
WHERE subscription_id = 4;
```

**Output-**

payment_method
credit Card

8. Which account has the earliest subscription start date?

**Query-**

```
SELECT account_id
```

```
FROM Subscription
WHERE start_date = (SELECT MIN(start_date) FROM Subscription);
```

**Output-**

account\_id

-----  
2

9.Can you list the account IDs with subscriptions ending in the next month?

**Query-**

```
SELECT DISTINCT account_id
FROM Subscription
WHERE MONTH(end_date) = MONTH(CURRENT_DATE) + 1;
```

**Output-**

account\_id

-----  
3  
6

10.What is the total number of subscriptions paid through upi?

**Query-**

```
SELECT COUNT(*) AS num_paypal_subscriptions
FROM Subscription
WHERE payment_method = 'upil';
```

**Output-**

num\_paypal\_subscriptions

----- 8

## ASSIGNMENT-05

### 10 queries and output of all three tables

1. What is the email associated with the account having the highest account ID?

**Query-**

```
SELECT email
FROM Account
WHERE account_id = (SELECT MAX(account_id) FROM Account);
```



**Output-***email*[example24@example.com](mailto:example24@example.com)

2. Can you list the first five accounts ordered by their account ID?

**Query-***SELECT \***FROM Account**ORDER BY account\_id**LIMIT 5;***Output-**

<i>account_id</i>	<i>email</i>	<i>password</i>
1	example1@example.com	password1
2	example2@example.com	password2
3	example3@example.com	password3
4	example4@example.com	password4
5	example5@example.com	password5

3. How many accounts have passwords longer than 10 characters?

**Query-***SELECT COUNT(\*) AS num\_accounts\_long\_password**FROM Account**WHERE LENGTH(password) > 10;***Output-**

<i>num_accounts_long_password</i>
7

4. Which profile has the most recent last watched content?

**Query-***SELECT \***FROM Profile**ORDER BY last\_watched DESC**LIMIT 1;***Output-**

<i>profile_id</i>	<i>account_id</i>	<i>name</i>	<i>language</i>	<i>last_watched</i>
4	4	light yagami	japanese	death note

5. How many profiles have English set as their language preference?

**Query-**

```
SELECT COUNT(*) AS num_profiles_english
FROM Profile
WHERE language = 'English';
```

**Output-**

```
num_profiles_english
```

-----

8

6. Can you list the names of all profiles along with their language preferences?

**Query-**

```
SELECT name, language
FROM Profile;
```

**Output-**

```
name | language
```

-----+

John | English

Jane | Spanish

Alice | French

...

7. How many subscriptions are active as of today?

**Query-**

```
SELECT COUNT(*) AS num_active_subscriptions
FROM Subscription
WHERE CURRENT_DATE BETWEEN start_date AND end_date;
```

**Output-**

```
num_active_subscriptions
```

-----

8

8. What is the start date of the subscription with the highest subscription ID?

**Query-**

```
SELECT start_date
FROM Subscription
WHERE subscription_id = (SELECT MAX(subscription_id) FROM Subscription);
```

**Output-**

*start\_date*

---

2023-09-13

9. Can you list the subscription IDs with a payment method of "upi"?

**Query-**

```
SELECT subscription_id
FROM Subscription
WHERE payment_method = 'upi';
```

**Output-**

*subscription\_id*

---

11  
12  
13  
14  
16  
18  
23  
24

10. Which account has the subscription with the earliest end date?

**Query-**

```
SELECT s.account_id
FROM Subscription s
WHERE s.end_date = (SELECT MIN(end_date) FROM Subscription);
```

**Output-**

No records found.







