**📘 Day 56 – SQL Challenge**

**Dataset Theme:** Online Streaming Platform (Users, Subscriptions, Movies, Watch History, Ratings)

**Tables & Sample Data**

**Users**

|  |  |  |  |
| --- | --- | --- | --- |
| UserID | Name | Country | JoinDate |
| 1 | Alice | USA | 2020-01-15 |
| 2 | Bob | UK | 2019-03-22 |
| 3 | Charlie | India | 2021-07-19 |
| 4 | David | Canada | 2022-11-11 |
| 5 | Eva | USA | 2018-05-01 |

**Subscriptions**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| SubID | UserID | Plan | StartDate | EndDate | Status |
| 101 | 1 | Premium | 2020-01-15 | 2021-01-14 | Expired |
| 102 | 1 | Premium | 2021-01-15 | 2022-01-14 | Expired |
| 103 | 1 | Premium | 2022-01-15 | 2023-01-14 | Active |
| 104 | 2 | Standard | 2019-03-22 | 2020-03-21 | Expired |
| 105 | 2 | Standard | 2020-03-22 | 2021-03-21 | Expired |
| 106 | 3 | Basic | 2021-07-19 | 2022-07-18 | Expired |
| 107 | 3 | Basic | 2022-07-19 | 2023-07-18 | Active |
| 108 | 4 | Premium | 2022-11-11 | 2023-11-10 | Active |
| 109 | 5 | Standard | 2018-05-01 | 2019-04-30 | Expired |

**Movies**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| MovieID | Title | Genre | ReleaseYear | Duration |
| 201 | Inception | Sci-Fi | 2010 | 148 |
| 202 | Titanic | Romance | 1997 | 195 |
| 203 | The Dark Knight | Action | 2008 | 152 |
| 204 | Interstellar | Sci-Fi | 2014 | 169 |
| 205 | The Godfather | Crime | 1972 | 175 |

**WatchHistory**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| WatchID | UserID | MovieID | WatchDate | WatchDuration |
| 301 | 1 | 201 | 2022-02-15 | 120 |
| 302 | 1 | 204 | 2022-03-10 | 169 |
| 303 | 2 | 202 | 2020-05-12 | 100 |
| 304 | 3 | 203 | 2022-08-20 | 150 |
| 305 | 3 | 201 | 2023-01-05 | 140 |
| 306 | 4 | 205 | 2023-03-11 | 175 |
| 307 | 5 | 202 | 2018-06-01 | 195 |

**Ratings**

|  |  |  |  |
| --- | --- | --- | --- |
| RatingID | UserID | MovieID | Rating |
| 401 | 1 | 201 | 5 |
| 402 | 1 | 204 | 4 |
| 403 | 2 | 202 | 3 |
| 404 | 3 | 203 | 4 |
| 405 | 3 | 201 | 5 |
| 406 | 4 | 205 | 5 |
| 407 | 5 | 202 | 4 |

**Questions**

1. Find the **top 3 movies by average rating**.
2. List users who have **watched movies in more than 2 different genres**.
3. Find the **churn rate**: number of users whose last subscription status = 'Expired'.
4. For each country, show the **total watch hours** contributed by users.
5. Identify **binge-watchers**: users who watched more than **300 minutes in a single day**.
6. Find the **most-watched genre** based on total watch duration.
7. Show users who **downgraded** their subscription (e.g., Premium → Standard/Basic).
8. Using a **window function**, calculate the **running total of minutes watched per user** ordered by WatchDate.
9. Find movies that are **watched but never rated**.
10. List users who **re-subscribed within 30 days** after their subscription expired.

**Bonus (Advanced):**  
11. Build a query to calculate the **Customer Lifetime Value (CLV)** for each user:

* CLV = SUM(TotalAmountPaid) / Number of Years as Customer
* Assume Premium = $15/month, Standard = $10/month, Basic = $5/month.