**📊 Day 66 – SQL Challenge: Streaming Platform Analytics**

**🎬 Dataset Overview**

This case simulates a **streaming service (like Netflix or Hotstar)** analyzing user engagement, watch time, and subscription patterns.

**1️⃣ Users**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **UserID** | **Name** | **Country** | **JoinDate** | **SubscriptionType** |
| 1 | Priya Nair | India | 2021-01-10 | Premium |
| 2 | Arjun Sharma | India | 2021-03-15 | Basic |
| 3 | Emily Brown | USA | 2020-11-25 | Premium |
| 4 | Ahmed Khan | UAE | 2021-05-30 | Standard |
| 5 | Maria Garcia | Spain | 2021-07-02 | Premium |

2️⃣ **Movies**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MovieID** | **Title** | **Genre** | **Duration** | **ReleaseYear** |
| 101 | Inception | Sci-Fi | 148 | 2010 |
| 102 | The Batman | Action | 176 | 2022 |
| 103 | Frozen II | Animation | 103 | 2019 |
| 104 | Money Heist Finale | Thriller | 110 | 2021 |
| 105 | Dangal | Drama | 161 | 2016 |
| 106 | Avengers Endgame | Action | 181 | 2019 |

3️⃣ **WatchHistory**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **WatchID** | **UserID** | **MovieID** | **WatchDate** | **WatchDuration** | **Rating** |
| 1 | 1 | 101 | 2022-05-12 | 120 | 9 |
| 2 | 1 | 105 | 2022-06-01 | 161 | 8 |
| 3 | 2 | 104 | 2022-07-11 | 60 | 7 |
| 4 | 2 | 103 | 2022-07-13 | 103 | 6 |
| 5 | 3 | 106 | 2022-08-01 | 181 | 9 |
| 6 | 4 | 101 | 2022-08-05 | 100 | 8 |
| 7 | 4 | 104 | 2022-08-06 | 90 | 7 |
| 8 | 5 | 103 | 2022-09-01 | 103 | 8 |
| 9 | 5 | 106 | 2022-09-05 | 181 | 9 |
| 10 | 3 | 105 | 2022-09-07 | 150 | 8 |

4️⃣ **Payments**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **PaymentID** | **UserID** | **Amount** | **PaymentDate** | **PaymentMode** |
| 201 | 1 | 999 | 2022-01-01 | Card |
| 202 | 2 | 499 | 2022-01-05 | UPI |
| 203 | 3 | 999 | 2022-02-10 | Wallet |
| 204 | 4 | 699 | 2022-03-01 | Card |
| 205 | 5 | 999 | 2022-04-01 | Card |
| 206 | 1 | 999 | 2022-07-01 | Wallet |
| 207 | 3 | 999 | 2022-08-01 | Card |
| 208 | 5 | 999 | 2022-09-01 | Card |

**💡 Day 66 – SQL Questions (Advanced & Interview-Level)**

1. **Join Practice**  
   Display each user’s name, movie title, and their rating.
2. **Aggregate Query**  
   Find the total hours watched by each user (convert minutes to hours, round to 2 decimals).
3. **Subquery + Filtering**  
   List movies that have been watched by more than 2 users.
4. **CASE + Aggregation**  
   Categorize each user as:
   * “Binge Watcher” → avg watch duration > 120
   * “Casual Viewer” → avg watch duration 60–120
   * “Light Viewer” → avg watch duration < 60
5. **CTE + Ranking**  
   Using a CTE, rank users within each country by total watch duration.
6. **Window Function (LAG)**  
   For each user, show the time gap (in days) between consecutive payments.
7. **Correlated Subquery**  
   Find users who rated *above their own average rating* for any movie.
8. **Analytical Query (NTILE)**  
   Divide all users into 3 engagement tiers based on their total watch time.
9. **Nested CTE + JOIN**  
   Use nested CTEs to find the *most watched genre* by each subscription type.
10. **Real-World Analytical Question (Interview Simulation)**  
    For each country, find the **top movie** based on average rating and display how much higher it is compared to the country’s average movie rating (in %).
11. **🚀 Bonus Challenge (Complex Analytical Logic)**  
    Write a query to find the **most loyal Premium user** —  
    i.e., the user who has **maximum months of continuous payment activity** without a gap of more than 60 days between payments.