**📘 Day 51 – SQL Challenge**

**Dataset: Streaming Platform Analytics**

**Users**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **UserID** | **Name** | **Country** | **JoinDate** | **SubscriptionType** |
| 1 | Alice | USA | 2021-01-01 | Premium |
| 2 | Bob | India | 2021-03-15 | Standard |
| 3 | Charlie | UK | 2022-02-10 | Premium |
| 4 | David | Canada | 2022-05-20 | Basic |
| 5 | Emma | India | 2023-01-12 | Premium |

**Movies**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **MovieID** | **Title** | **Genre** | **ReleaseYear** | **Duration** |
| 101 | SQL Unlocked | Documentary | 2022 | 90 |
| 102 | Data Science 101 | Education | 2021 | 120 |
| 103 | AI Future | Sci-Fi | 2023 | 150 |
| 104 | Cloud Wars | Drama | 2022 | 100 |
| 105 | Python Mastery | Education | 2023 | 110 |

**WatchHistory**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **WatchID** | **UserID** | **MovieID** | **WatchDate** | **WatchDuration** | **Rating** |
| 1 | 1 | 101 | 2022-01-10 | 90 | 5 |
| 2 | 2 | 102 | 2022-02-15 | 100 | 4 |
| 3 | 3 | 103 | 2023-01-05 | 150 | 5 |
| 4 | 4 | 104 | 2023-02-20 | 80 | 3 |
| 5 | 5 | 105 | 2023-03-01 | 110 | 4 |
| 6 | 1 | 103 | 2023-03-10 | 140 | 5 |
| 7 | 2 | 101 | 2023-04-01 | 85 | 4 |
| 8 | 3 | 105 | 2023-04-15 | 100 | 5 |
| 9 | 4 | 102 | 2023-05-01 | 110 | 3 |
| 10 | 5 | 104 | 2023-05-20 | 90 | 4 |

**❓ Day 51 Questions (Intermediate → Advanced)**

1. **Most Watched Genre**  
   Find the genre with the highest total watch duration.
2. **Top Rated Movies**  
   List movies with an average rating above 4.5.
3. **User Engagement**  
   Find users who watched more than **2 movies**.
4. **Monthly Active Users (MAU)**  
   Count distinct active users per month.
5. **Genre Popularity Ranking**  
   Rank genres by total number of unique viewers.
6. **Repeat Watchers**  
   Identify users who watched the same movie more than once.
7. **Subscription Value Analysis**  
   Find the average watch duration for each subscription type.
8. **Window Function – User Timeline**  
   For each user, show their watch history with previous movie watched (LAG).
9. **Churn Prediction**  
   Find users who have not watched anything in the last 90 days from max watch date.
10. **Country-Wise Viewing Habits**  
    Show total viewing hours and average rating per country.

**🎯 Bonus Challenge (Advanced)**

1. **Binge-Watching Detection**  
   A binge session = Watching more than **2 movies within 7 days**.  
   Write a query to detect which users engaged in binge-watching.