

Project Title:

Netflix-Style Content Recommendation & User Behavior Analytics Dashboard

Project Description

We want to evaluate your ability to **analyze, visualize, and communicate insights from large-scale entertainment data** — the same way Netflix leverages analytics to engage millions of users worldwide.

Project Scope:

1. Dataset Preparation

- Use publicly available datasets (e.g., Kaggle Netflix Dataset, IMDb, TMDB API) OR simulate large-scale Netflix-like user logs.
- Data should include: users, movies/series, ratings or watch-time, genres, release year, region, and device usage.

2. Analysis Goals

- Identify **engagement patterns** (genres, time-of-day, binge vs casual watching).
- Build a **churn prediction model** (who is likely to unsubscribe).
- Cluster users into **viewer personas** (binge-watchers, casual, genre-specific).
- Provide **content investment recommendations** (which shows/genres should Netflix invest more in).

3. Dashboard & Storytelling

- Create an **interactive dashboard/website** (using Streamlit / Flask / Django / Dash / Power BI Embedded).
- Dashboard must display:
 - Top recommended shows per user cluster.
 - Churn risk visualization.
 - Regional trends (map or heatmap).
 - Viewer engagement KPIs (average watch time, most dropped-off shows, etc.).

4. Deployment Requirement

- The project must be deployed in a **website format** (accessible link) so hiring managers can directly explore your work.
- Preferred platforms: **Streamlit Cloud, Render, Vercel, or Heroku.**

5. Deadline

- **Final project submission deadline: 27th September 2025.**

Tools You Can Use:

- **Data Cleaning & Analysis:** Python (Pandas, NumPy, Scikit-learn, SQL)
- **Visualization:** Matplotlib, Seaborn, Plotly, Power BI, Tableau
- **Deployment:** Streamlit, Flask, Django, or Dash
- **Optional Big Data Add-on (Bonus):** PySpark, AWS S3, or Google BigQuery