Machine Learning Assignment By Mouneshgouda

Problem Statement: Netflix's Best Movie & Series Recommendation

Netflix, the popular streaming service, is looking to enhance its recommendation system to provide users with personalized suggestions for movies and series. The current recommendation system relies on basic user preferences but lacks the finesse to recommend the best content based on individual tastes and watching patterns.

The goal is to develop an advanced recommendation algorithm that takes into account various factors such as genre preferences, viewer ratings, historical watching behavior, and possibly external data sources to suggest the most appealing movies and series for each user.

Assignment Overview

Welcome to the world of machine learning! In this assignment, you will be introduced to the basics of machine learning and given an opportunity to apply your knowledge to a real-world dataset. Follow the instructions carefully, and don't hesitate to reach out if you have any questions.

Dataset Download using given link below

We will be using a dataset available on GitHub. Please download the dataset from the following link:

*@ **GitHub** </i></small></small>*

Otherwise Copy Paste Given Below Link

https://github.com/Mouneshgouda/MouneshGouda-

Assignment Tasks

1.Explore the Dataset:
Load the dataset into your preferred programming environment (Python with libraries like Pandas or R).

Display basic statistics and information about the dataset (e.g., number of rows, columns, data types).

Show the first few rows of the dataset to get a glimpse of its structure.

2.Data Preprocessing:
Handle missing values: Identify and handle any missing data in the dataset.

Convert categorical variables: If there are categorical variables, encode them appropriately for machine learning models.

3.Data Visualization:
Create visualizations (e.g., histograms, scatter plots) to explore the relationships between different features.

Identify any patterns or trends that may be relevant for the machine learning task.

4.Splitting the data:
Split the dataset into training and testing sets. A common split is 80% for training and 20% for testing.

5.Choose a Machine Learning Model:
Select a machine learning model that is suitable for the type of problem you are trying to solve (e.g., classification, regression).

6.Train your Model:

Train your chosen model using the training dataset.

6.Evaluate the Model:

Use the testing dataset to evaluate the performance of your trained model.

Report relevant metrics (accuracy, precision, recall, etc., depending on the nature of the problem).

7.Conclusion:

Submission Guidelines

Submit your assignment as a Jupyter Notebook or a well-commented script file.

Include visualizations and explanations for each step.

Clearly state any assumptions or limitations in your analysis.

Deadline

The assignment is due on [10-02-2024]. Late submissions will be penalized.

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As you embark on your assignments and projects, we want to remind you to be mindful of copyright laws and intellectual property rights. It's crucial to respect the work of others and adhere to ethical standards in your academic and creative endeavors.

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