greatlearning
Learning for Life

Project on Recommendation System

Contents

- Description
- Attribute information
- Steps to follow
- Conclusion

Description

Data Description:

- Amazon Reviews data (data source) The repository has several datasets. For this case study, we are using the Electronics dataset.

Domain:

- E-commerce

Context:

- Online E-commerce websites like Amazon, Filpkart uses different recommendation models to provide different suggestions to different users. Amazon currently uses item-to-item collaborative filtering, which scales to massive data sets and produces high-quality recommendations in real time.

Objective:

- Build a recommendation system to recommend products to customers based on the their previous ratings for other products

Attribute Information

Attribute Information:

- userId : Every user identified with a unique id
- productId : Every product identified with a unique id
- Rating : Rating of corresponding product by the corresponding user
- timestamp : Time of the rating (ignore this column for this exercise)

Learning Outcomes:

- Exploratory Data Analysis
- Creating a Recommendation system using real data
- Collaborative filtering

Steps

- Read and explore the given dataset. (Rename column/add headers, plot histograms, find data characteristics)
- Take a subset of the dataset to make it less sparse/ denser. (For example, keep the users only who has given 50 or more number of ratings)
- Split the data randomly into train and test dataset. (For example, split it in 70/30 ratio)
- Build Popularity Recommender model.
- Build Collaborative Filtering model.
- Evaluate both the models. (Once the model is trained on the training data, it can be used to compute the error (RMSE) on predictions made on the test data.)
- Get top - K (K = 5) recommendations. Since our goal is to recommend new products to each user based on his/her habits, we will recommend 5 new products.
- Summarize your insights.

greatlearning
Learning for Life

HappyLearning

Questions?