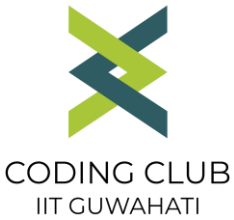
CODING CLUB
DIY PROJECTS SUMMER 2021



Recommendation Systems

Expected Time To Finish: 2 Days

By Pranav Garg

INTRODUCTION

In this DIY project, you'll learn how the movie recommendation systems work. Then, you would be taking different datasets and implementing your own movie and book recommendation system. You can use the same technique to build systems to recommend other items too.

TECHNOLOGIES USED

1. **Python**
2. **Pandas**
3. **NumPy**
4. **scikit-learn**

RESOURCES

Setting up python environment

Option 1 : Anaconda

https://www.youtube.com/watch?v=uOwCiZKj2rg
Follow this video to setup anaconda , and use the jupyter notebook to do the project.

https://www.youtube.com/watch?v=fiQTb7-rCPo
Follow this video to familiarise with jupyter notebook

Option 2 : Python with VSCode(or some other IDE of your choice)

https://www.youtube.com/watch?v=AKVRkB0fot0
Follow this video (or the vscode documentation) to setup python in VSCode (or some other IDE like Atom etc)

Pandas

https://www.youtube.com/watch?v=vmEHCJofslg
Go through the above video to understand the concepts of pandas library , which will be useful

https://www.kaggle.com/learn/pandas
You can complete this microcourse for learning pandas as well.

NumPy

https://www.youtube.com/watch?v=NVTWjd_UpzM&list=PLzgPDYo_3xukqLLjNeuCxj4CwvkJin03Z
(1-24 in the playlist)

https://realpython.com/numpy-tutorial/#:~:text=NumPy%20is%20a%20Python%20library,any%20Python%20data%20scientist's%20journey.
Reading resources. Don't read the entire article in a single go. Read small parts and try to digest the previous part before going on to the next part.

https://www.w3resource.com/python-exercises/numpy/basic/index.php
A few questions for practice.

Implementation

https://www.youtube.com/watch?v=_hf_y-_sj5Y&list=PLZoTAELRMXVN7QGpcuN-Vg35Hgjp3htvi
Follow this playlist to understand the implementation of the code.

https://www.analyticsvidhya.com/blog/2020/11/create-your-own-movie-movie-recommendation-system/
Alternatively, you can have a reading of this article to understand about recommendation systems.

Further Readings

KNN_Article
This article explains about the K-Nearest Neighbors algorithm.

https://www.machinelearningplus.com/nlp/cosine-similarity/
An article explaining cosine similarity.

PS: Don’t just follow the tutorial videos blindly copying the code, try to understand the basics behind performing each operation. It’s a short term DIY project and you’re supposed to finish it by yourself.

The resources provided may not be enough and you may face issues ; since this is a self learning project , it is highly recommended to refer to documentation , stackoverflow , youtube tutorials(other than the ones mentioned) etc.