UDACITY

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DISCUSS ON STUDENT HUB

Recommendations with IBM

REVIEW

HISTORY

Meets Specifications

Congratulations on completing the project! You should be proud of your accomplishments in cleaning the data and then analyzing it to look at customer segments in the data. In the review, you'll find some tips to help you continue to improve on your analysis – there's a lot more that can be done to dig even deeper into the project.

Code Functionality & Readability

All the project code is contained in a Jupyter notebook or script. If you use a notebook, it demonstrates successful execution and output of the code. All tests have passing remarks.

All tests passed. Awesome job!!! You have successfully completed all rubric items needed to pass this project.

Code is well documented and uses functions and classes as necessary. All functions include document strings. DRY principles are implemented.

Your code is well documented and has good use of DRY principles. Nice work here. Lots of good coding practices.

Data Exploration

Explore the data to understand the number of users, articles, and information about the interactions that take place.

Looks like you have successfully completed the dictionary associated with the exploring the user-item matrix. Excellent job!
You passed all of the tests to identify the number of users, articles, and explore their interactions.

Create Rank Based Recommendations

Tests will ensure that your functions will correctly pull the top articles. The two functions should pull the top ids and the top names.

Nice work pulling the top rank based recommendations. Your function passed all of the tests related to pulling the top 5, 10, and 20 articles in the dataset. Good work!

Collaborative Filtering

Create a matrix with users on the rows and articles on the columns. There should be a 1 if a user-article interacted with one another and a zero otherwise.

Nice work setting up the user-article matrix. Looks like you have passed all of the tests, and you are ready to take on the rest of the collaborative filtering tasks!

Find similar users needed for user-user collaborative filtering model. Write a function that finds similar users.

Great work here finding the top articles! You have provided a couple of very nice functions will come in handy later on in this project too. Nice job. You passed all of the tests, and we can be sure you are able to provide a rank based method for making a recommendation to any user.

Additionally, your code runs pretty efficiently here. There are lots of less efficient ways you might have performed this task.

Make recommendations using user-user based collaborative filtering. Complete the functions needed to make recommendations for each user.

Great work creating a user-user based collaborative filtering algorithm. You passed all of the tests! No easy task here! Excellent!

Improve your original method of using collaborative filtering to make recommendations by ranking the collaborative filtering results by users who have the most article interactions first and then by articles with the most interactions.

Nice job. These small improvements to the user-user based recommender are going to go a long way towards improving our user experience (hopefully)!
You passed all the tests! Please proceed. Almost to the finish line!

Provide recommendations for new users, which will not be able to receive recommendations using our user-user based collaborative filtering method.

That's right! For new users, we should recommend using the most popular items. You correctly identified this idea and implemented it here. Good work.

Matrix Factorization

Perform SVD on user-item matrix. Provides U, Sigma, and V-transpose matrices, as well as an explanation of why this technique works in this case.

This looks good. You're right - we can use the built-in because there aren't any missing values in the original user-item matrix, which was not true of our user-item matrix used
throughout the lesson.

Split the user-item matrix into training and testing segments. Identify the users in the test set that are also in the training.

Nice work. Looks like you have accurately pulled the training and testing ids.

You have correctly identified the different values associated with the training and testing user and article ids.

You also passed all of the tests. Great job.

Perform assessment of the predicted vs. the actual values.

You went above and beyond here by extending the earlier code. You have created a nice visual of the training and testing accuracy values with differing numbers of latent features.

Provide a discussion about the results, as well as a method by which you could test how well your recommendation engine is working in practice.

Nice write up here. You have correctly identified why the accuracy was so high.
You have also created a nice test for us to better understand how well this recommendation engine would work in practice.

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