When the (Welcome Screen) Amazon Recommender System starts:

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Recommender systems
LOADING DATA (may take several minutes)...




Welcome to the Amazon clothing, shoes & jewelry recommender



Would you like to review some products and get recommendations, or see recommendations for a random user?
 (type 'User input' or 'Random user'):
```

Two options to select:

1) User input – If you want to input a user and give recommendations of five random items and then run recommendation algorithms, algorithms will give recommendations based on how you rated which products
2) Random user – If you don't want to input anything and select a random user from the data, algorithms will provide recommendations for that random user

Let's go with 'Random User':

```
Would you like to review some products and get recommendations, or see recommendations for a random user?
 (type 'User input' or 'Random user'): Random user


You selected:  Random user


User Rated:Picnic Time Turismo Cooler
User Rated:Leather Money Clip &amp;amp; Credit Card Holder - Style 1010R Black
User Rated:Carhartt Men's Canvas Cell Phone Pocket Work Short B144
User Rated:Necklace Bracelet Extender - 2 Sets - 1&quot;, 2&quot; and 4&quot; - 6 Pcs Total ~ Silver Tone (FB212)
User Rated:Indestructible Aluminum Wallet (Silver)
User Rated:adidas Men's Adissage SC Slide Sandal
User Rated:Brixton Men's Brood Snap Cap
User Rated:New Balance Women's WW978 Walking Shoe


Select recommendation method
(type 'User-based', 'Item-based', 'Hybrid'):
```

On typing in 'Random user', we can see the products rated by the randomly selected user and the system asks us to select the recommendation method. Three options to select:

1) User-based – User based recommendations
2) Item-based – Item based recommendations

3) Hybrid – A combinations of user + content based recommendations

Explanation of all implemented algorithms provided in ‘Final Report’

Let’s go with ‘User-based’:

```
Select recommendation method
(type 'User-based', 'Item-based', 'Hybrid'): User-based



Number of products to recommend? (Input an integer:)
4


How many similar users to base rec's off of? (Input an integer):
3


User Rated: Picnic Time Turismo Cooler
User Rated: Leather Money Clip &amp;amp; Credit Card Holder - Style 1010R Black
User Rated: Carhartt Men's Canvas Cell Phone Pocket Work Short B144
User Rated: Necklace Bracelet Extender - 2 Sets - 1&amp;quot;, 2&amp;quot; and 4&amp;quot; - 6 Pcs Total ~ Silver Tone (FB212)
User Rated: Indestructible Aluminum Wallet (Silver)
User Rated: adidas Men's Adissage SC Slide Sandal
User Rated: Brixton Men's Brood Snap Cap
User Rated: New Balance Women's WW978 Walking Shoe


Recommendation: Aerosoles Women's Badminton Sandal
Recommendation: 14 Karat Yellow Gold Delicate Long Box Chain (0.6 mm, 18 inch)
Recommendation: Black Pleated Micro Mini Skirt
Recommendation: Jerzees Men's MOVE Moisture Management T-Shirt

Do you want to see how we validate our recommenders? (type 'Yes' or 'No'):
```

On typing ‘User-based’, system asks for the number of recommendation you want, here I have provided 4 as input, then it asks for how many similar users to based recommendation off of? I have provided value as 3, so this algorithm serves 4 recommendations for this random user using 3 most similar users to that user.

Next the system asks whether we want to validate our recommenders? Let’s go with ‘Yes’:

```
Do you want to see how we validate our recommenders? (type 'Yes' or 'No'):
 Yes


 -- Recommender evaluator --


Now that you've seen some examples, let's talk about performance

Which recommendation method do you want to evaluate?
(type 'User-based', 'Item-based', 'Hybrid'): User-based
How much of the data do you want to validate on?
Input a decimal value between 0 and 1
For reference '0.01' would perform about 80 recommendations:
0.01
How many similar users to base rec's off of? (type an integer)
3
How do you want to evaluate the recommender system?
(type 'MAE' or 'Recall')MAE
How many recommendations to give?(type an integer)
4


MEAN ABSOLUTE ERROR:   0.658914728682


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Do you want to start over again? (Type 'Yes' or 'No':
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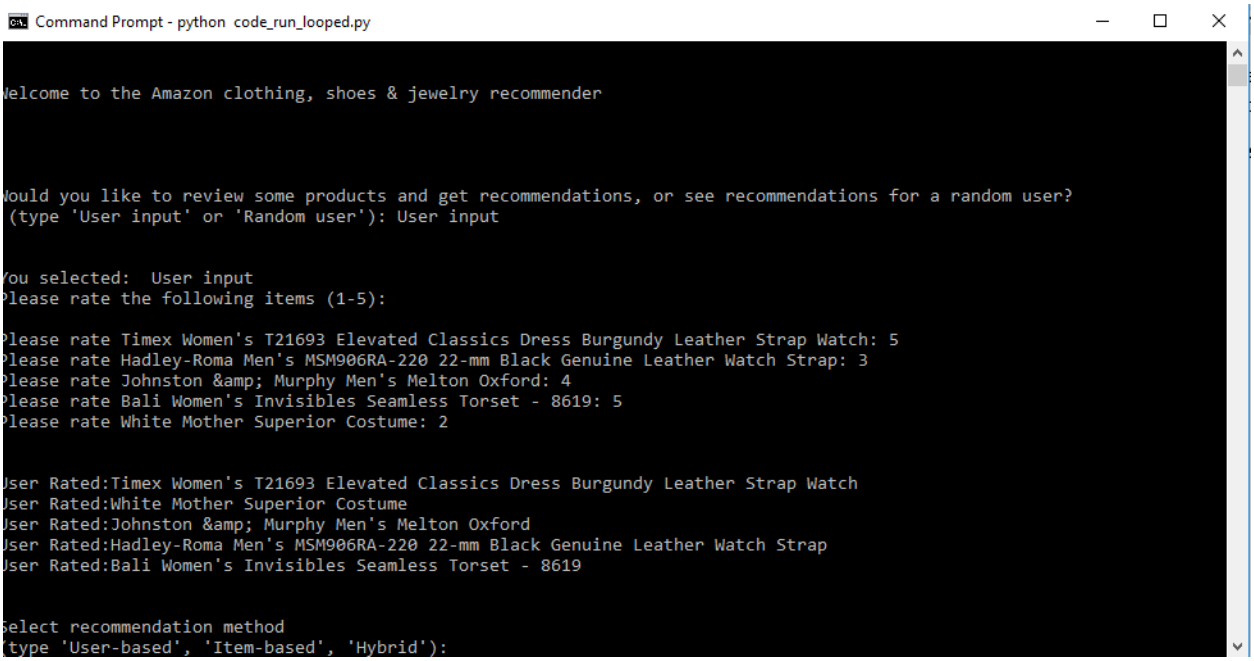
If we say ‘Yes’, the system asks for the type of recommendation algorithm you want to evaluate, I have given ‘User-based’, it asks the ratio of data you want to run evaluation on, I have selected 0.01 which is just 1% of data, as the data is pretty big giving larger number will take a lot of time to give results, once you enter that, it asks for number of similar users you want to use for evaluation, next it asks for the evaluation measure you are interested in ‘MAE’ or ‘Recall’, I have given ‘MAE’ and it asks for how many recommendations you want to use to evaluate this recommender, I have given 4, so it calculates MAE for the given recommendation algorithm which comes out to be 0.658914728682.

If you type ‘Yes’ in final prompt it will again take you to first screen where it asks to enter a user or go for random user. We can run the same procedure to see the Item-based and Hybrid algorithm based recommendations for a random user and evaluate the algorithms based on MAE and Recall.

If you select ‘User input’ in the first prompt, you see:



After you rate 5 random items you can again go through the same process to get recommendations based on different algorithms and evaluate them.