Installation Instructions

Team Cautions Spoon

Web-based Social Networking Platform Installation Instructions:

To run the program on the local host server:

1) Clone the repository from git or unzip the submitted 'Cautions Spoon' folder
2) To view the project on the local host you will need to create a .env file. To do this open a new file and copy the text below into the file, naming it **.env:**

   # S3 upload settings

   DEFAULT_FILE_STORAGE = storages.backends.s3boto3.S3Boto3Storage

   AWS_S3_ACCESS_KEY_ID = AKIA4AMLNUUEYG65NFC7

   AWS_S3_SECRET_ACCESS_KEY = 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

   AWS_STORAGE_BUCKET_NAME = bookclubimages

   os.environ.setdefault('S3_USE_SIGV4', 'True')

3) From within the 'Cautions Spoon' project you will need to run the following commands:
   a) **virtualenv venv**
   b) **source venv/bin/activate**
   c) **pip3 install –r requirements.txt**
   d) **python3 manage.py migrate**
   e) **python3 manage.py seed**
   f) **python3 manage.py runserver**

4) You will now need to open your browser and visit the following site: http://localhost:8000/ and you should now be able to see the book club landing page.

   Recommended Browsers: Firefox & Chrome

   Avoid: Safari

   [Please have JavaScript enabled]

5) To create a super user, you can enter the following commands:
   a) A super user is used to view and manage the site, if the admin would like to use the site as a book club member, they would need to make their own 'normal' account.
   b) python3 manage.py createsuperuser
   c) Enter a username, email and password when prompted

Recommender System Evaluator Installation and Result Replication Instructions:

Content Based Recommender System:

NOTE: The evaluator will use a much smaller test set consisting of 31,000 ratings and 500 books which can be found in the csv files named 'BX_Book_test_set.csv' and 'BX-Book-Ratings_test_set.csv'.

To Replicate the results found in the Recommender Systems report you will need to run the 'content_based_evaluator.py' file from within the 'content_based_recommend' folder.

1. Before doing this, you will need to enter the following commands from within the SEG-major-project' folder. (This assumes that you have a fresh folder which you have not run any commands on. If you have already run the following commands, skip to step 2).
    d) **virtualenv venv**
    e) **source venv/bin/activate**
    f) **pip3 install –r requirements.txt**
    g) **python3 manage.py migrate**
    h) **python3 manage.py seed**
2. You can now enter the following commands to run the evaluator
    a. cd clubs/content_based_recommender/
    b. python3 content_based_evaluator.py

```
(venv) [redacted]-VirtualBox:~/SEG-major-project$ cd clubs/content_based_recommender/
(venv) [redacted]-VirtualBox:~/SEG-major-project/clubs/content_based_recommender$ python3 content_based_evaluator.py
```

3. To evaluate the performance of the combined property, the summary and the algorithm using both you will need to comment out the following lines in the content_based_KNN file and run the 'content_based_evaluator.py' file each time. **python3 content_based_evaluator.py**

- To evaluate the algorithm using the combined property:

```
43          # self.similarities[thisRating, otherRating] = summarySimilarity * combinedSimilarty
44          # self.similarities[thisRating, otherRating] = summarySimilarity
45          self.similarities[thisRating, otherRating] = combinedSimilarty
```

- To evaluate the algorithm using the Summary:

```
43          # self.similarities[thisRating, otherRating] = summarySimilarity * combinedSimilarty
44          self.similarities[thisRating, otherRating] = summarySimilarity
45          # self.similarities[thisRating, otherRating] = combinedSimilarty
```

- To evaluate the algorithm using both the previously mentioned properties:

```
43          self.similarities[thisRating, otherRating] = summarySimilarity * combinedSimilarty
44          # self.similarities[thisRating, otherRating] = summarySimilarity
45          # self.similarities[thisRating, otherRating] = combinedSimilarty
```

Neighborhood Based Recommender System:

NOTE: The evaluator will use a much smaller dataset consisting of 30,000 ratings which can be found in the csv files named 'BX-Book-Ratings_formatted_evaluation.csv' and 'BX_Books_formatted_evaluation.csv'.

To Replicate the results found in the Recommender Systems report you will need to run the 'N_based_KNN_bakeoff.py' file from within the 'N_based_RecSys_evaluation' folder.

(In the Recommender Systems report, we are using 40,000 ratings, however it would give "Killed: 9" error sometimes. In order to show the stable output and results, we are using 30,000 instead, so the result will have a slight difference.)

1. Before doing this, you will need to enter the following commands from within the SEG-major-project' folder. (This assumes that you have a fresh folder which you have not run any commands on. If you have already run the following commands, skip to step 2).
    a. **virtualenv venv**
    b. **source venv/bin/activate**
    c. **pip3 install –r requirements.txt**
    d. **python3 manage.py migrate**
    e. **python3 manage.py seed**
2. You can now enter the following commands to run the evaluator (It might take more than 10 minutes to get the results. As we are using a smaller book dataset, if the evaluator cannot find the title of book, it will print the isbn instead.)
    a. **cd clubs/N_based_RecSys_evaluation**
    b. **python3 N_based_KNN_bakeoff.py**

```
(venv) ~/Documents/SEG/SEG-major-project (main) $ cd clubs/N_based_RecSys_evaluation
(venv) ~/Documents/SEG/SEG-major-project/clubs/N_based_RecSys_evaluation (main) $ python3 N_based_KNN_bakeoff.py
```