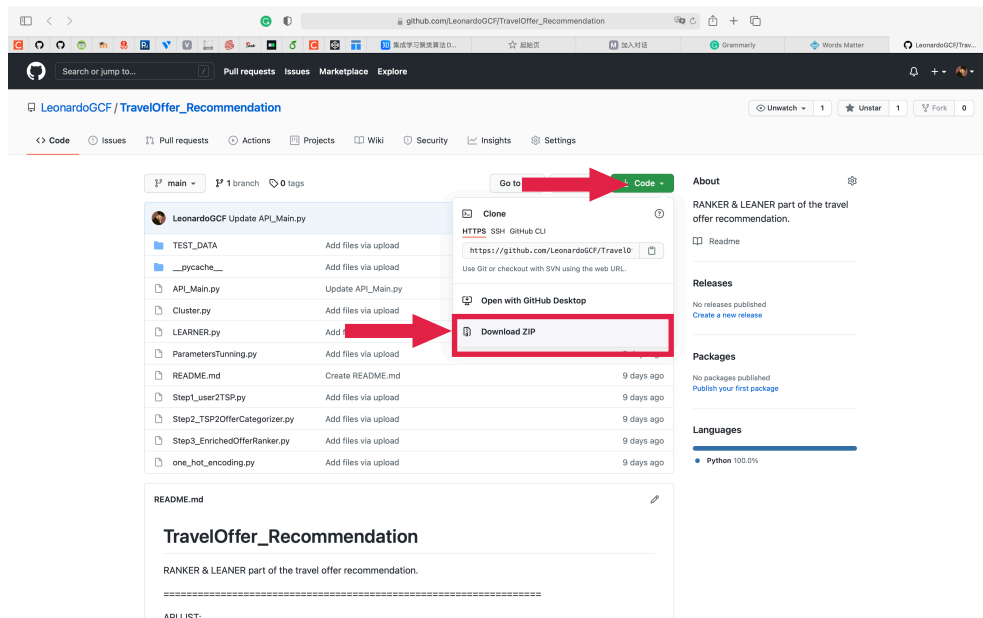


Guides of using TravelOfferRecommender

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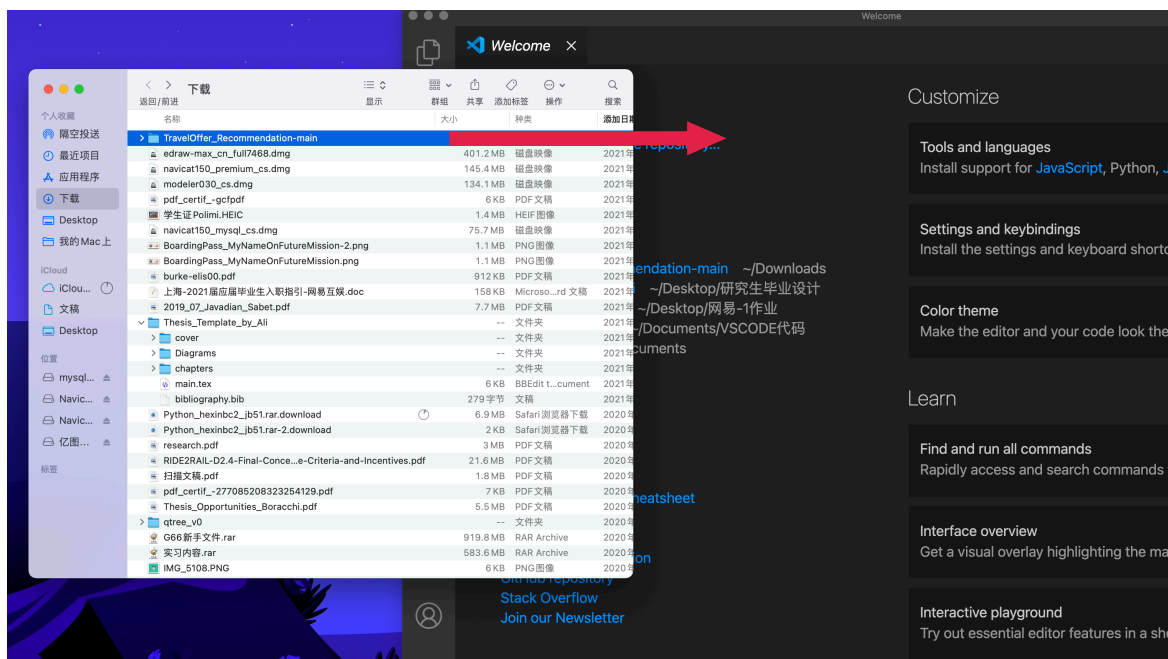
Step 1 Download the coding from GitHub

https://github.com/LeonardoGCF/TravelOffer_Recommendation.git



Step 2 Use your IDE to open the file

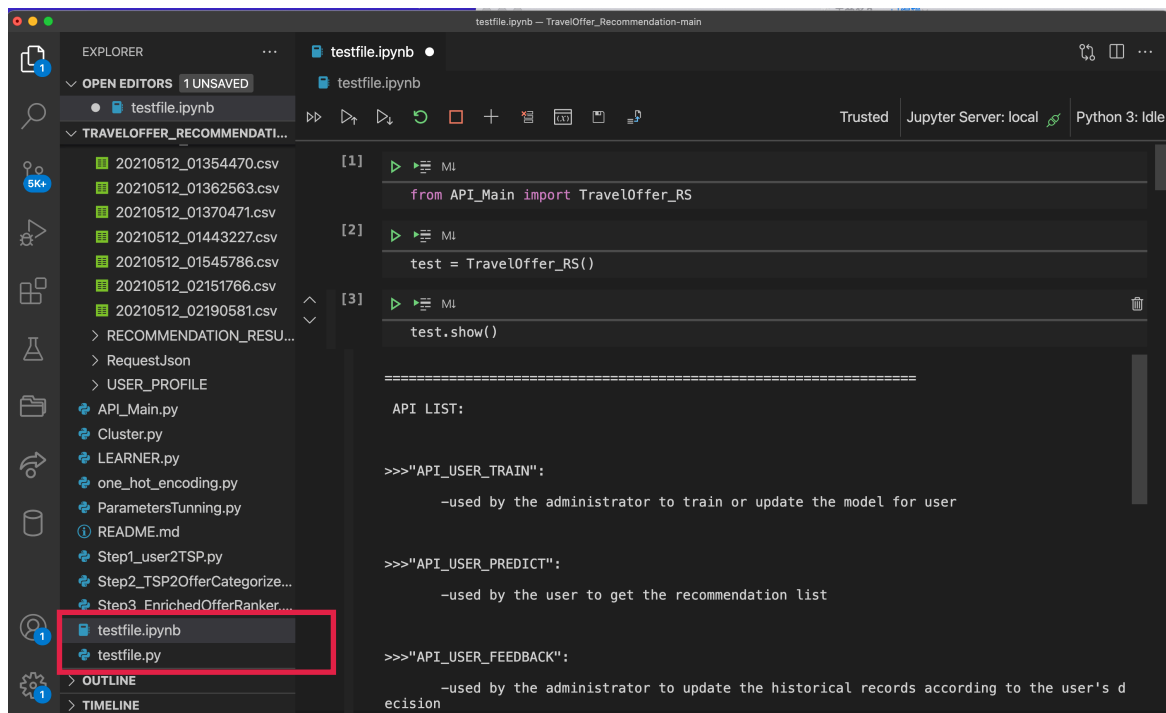
Drop your download file into your IDE, here I use VSCODE



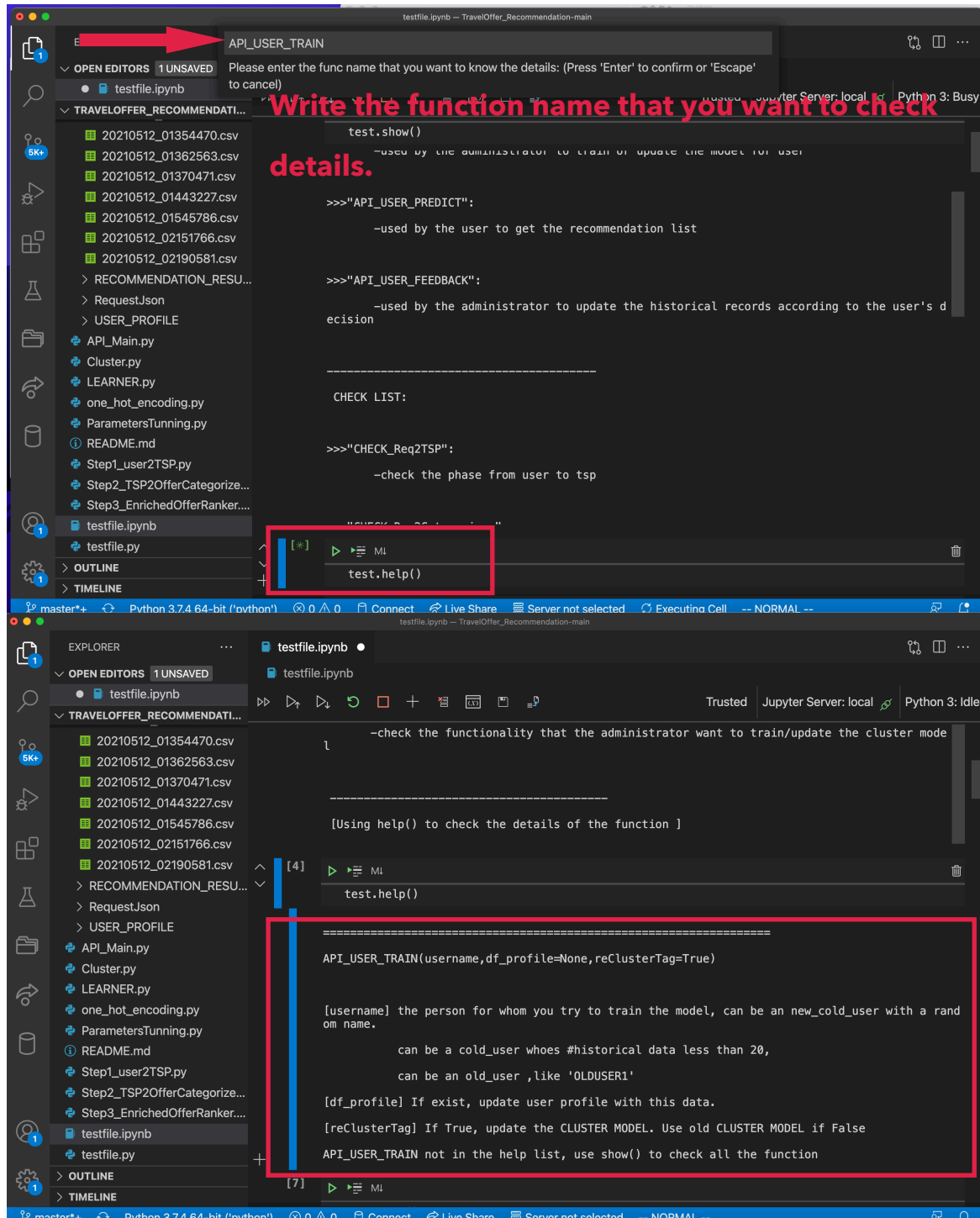
Step 3 Build your own test python file

You can choose python file or a Jupyter file, I recommend to use Jupyter here. Then you can use show() to check all the interfaces.

```
from API_Main import TravelOffer_RS
test = TravelOffer_RS()
test.show()
```



```
test.help()
```



Step 5 Starting the test

You can directly use the default value in the system:

Self. OLD_USER represents an user who has more than 100 records in db.

Self.COLD_USER represents an user who has less than 100 records in db.

(NOTE: do not use feedback api to update the cold user's db.)

```
[14] ▶ ⋮ ML
      print(test.df_profile)

      TimeStamp      User ID Date Of Birth   city  country \
0  2021-04-30 05:05:35.582118  NewUser01    1973-08-02  Dublin  Ireland

      Loyalty Card \
0  ['Grand Voyageur', 'Golden Card', 'Cartafreccia']

      Payment Card \
0  ['Apple Wallet', 'Google Wallet', 'Visa', 'Mas...

      PRM Type \
0  ['Pregnant woman', 'Older person', 'Person wit...

      Preferred means of transportation \
0  ['Intercity', 'Urban', 'Funicular', 'Trolery B...

      Preferred carrier   Class   Seat \
0  [4.5, 2.5, 4.5, 3.5, 3.0, 1.5, 5.0, 1.5, 3.5, ...  Economy  Window

      Refund Type
0  Automatic refund
```

1. Old user response

```
test.API_USER_PREDICT(test.OLD_USER, test.req)
```

2. Cold user response (user's records less than 100)

```
test.API_USER_PREDICT(test.COLD_USER, test.req)
```

3. For a new user, you can build your own profile or use self.df_profile and do not forget to change the name .

```
newuser = 'NewUser01'  
new_profile = test.df_profile  
new_profile.loc[0, 'User ID'] = newuser  
test.API_USER_PREDICT(newuser, test.req, new_profile)
```

>>> CHECK Video responseTest.mov

4. Administrator can choose to update the model by API_USER_TRAIN

Update the recommender model for an old user:

```
test.API_USER_TRAIN(test.OLD_USER)
```

Update the cluster model and predefined model for cold user:

```
test.API_USER_TRAIN(test.COLD_USER)
```

Sign the predefined model without retraining the cluster model

```
test.API_USER_TRAIN(test.COLD_USER, reClusterTag=False)
```

>>> CHECK Video trainTest.mov

5. User feedback test

Choose the response_code according to the travel offer list given by TSP, it means the unique code of a response. You can use predict function to get the code.

Choose parts of travel offer ID from the recommendation as the boughtList.

```
response_code=test.API_USER_PREDICT(test.OLD_USER, test.req)  
boughtList = [2021051202190515]# change by yourself  
test.API_USER_FEEDBACK(test.OLD_USER, boughtList, response_code)
```

>>>CHECK Video feedbackTest.mov