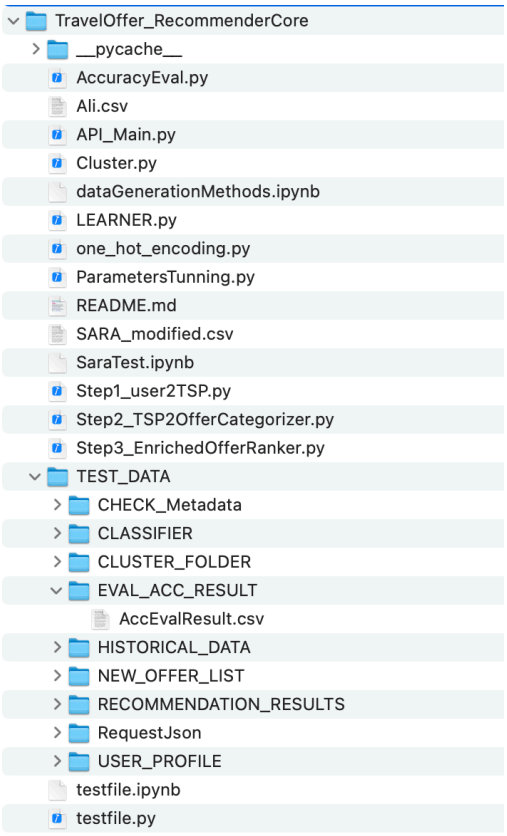
Guide for using

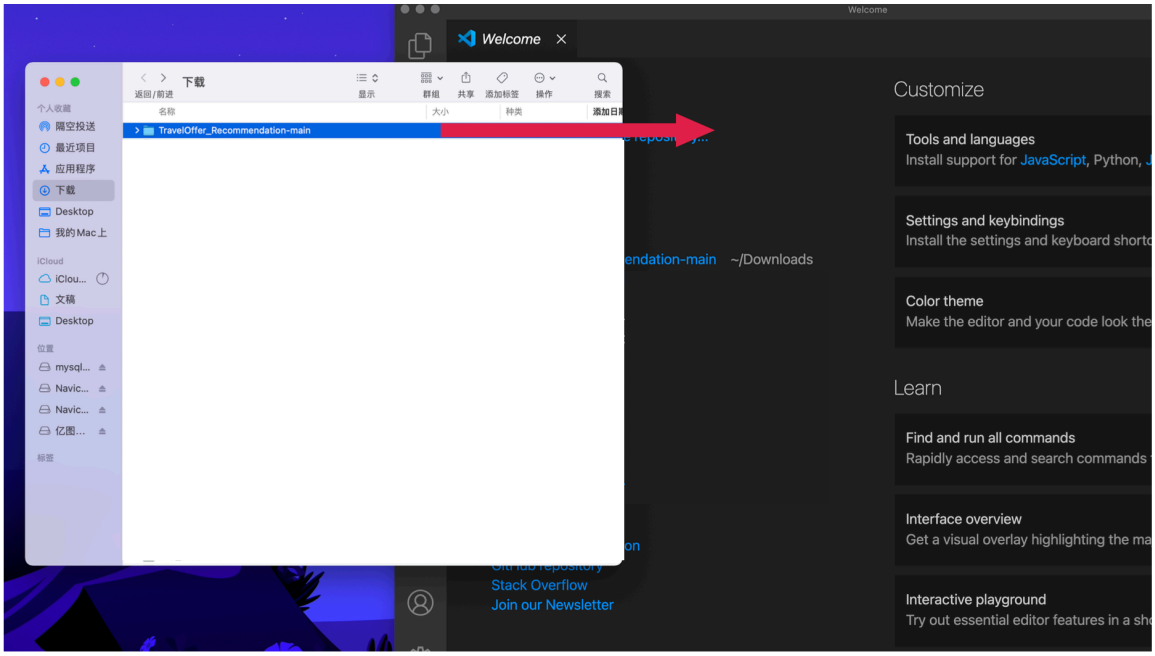
2021/7/26

Step 1 Download the codes



Step 2 Use your IDE to open the file

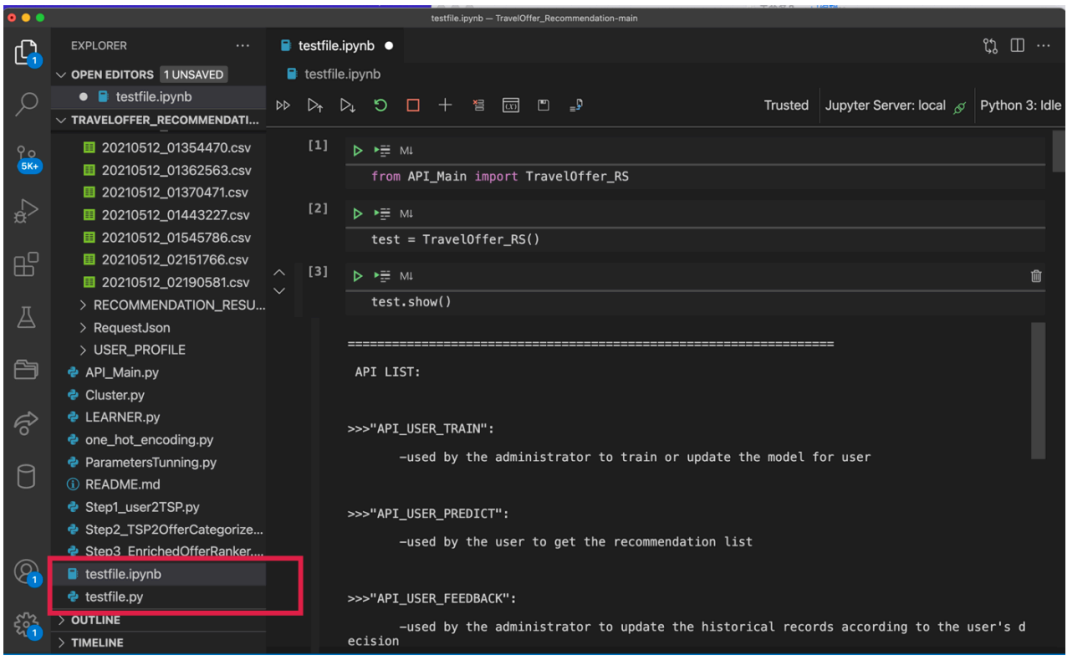
Drop your download file into your IDE, here I use VSCODE



Step 3 Build your own test python file

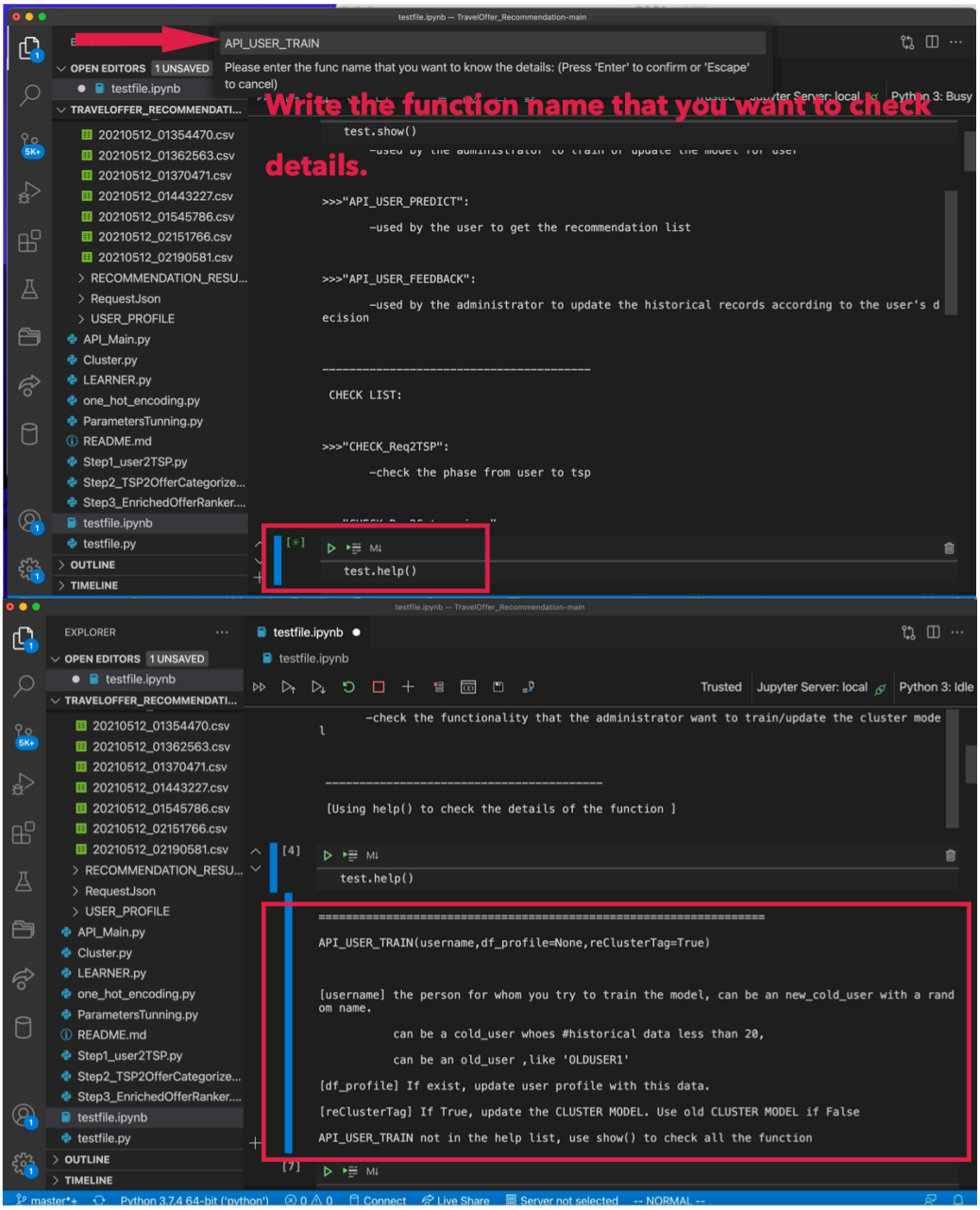
You can choose python file or a Jupyter file, I recommend to use Jupyter here. Then you can use show() to check all the interfaces.

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



Step 4 Use help() to check the details about the explanation, input , and output of the function

```
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]  M↓
      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', 'Trolely 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