

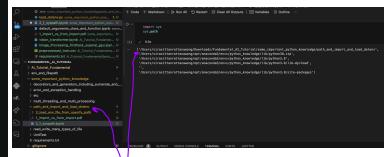
1. sys.path

sys.path in Python

Sys is a built-in Python module that contains parameters specific to the system i.e. it contains variables and methods that interact with the interpreter and are also governed by it.

sys.path

syspath is a built-in variable within the sys module. It contains a list of directories that the interpreter will search in for the required module.



- **DEFAULT-** By default, the interpreter looks for a module **within the current directory**. To make the interpreter search in some other directory you just simply have to change the current directory. The following example depicts a default path taken by the interpreter:

A screenshot of a Jupyter Notebook cell. The code imports 'sys' and prints 'sys.path'. The output shows the path: '/Users/rohit/PycharmProjects/Python_Lecture_1'. A blue arrow points from the output to the text 'current path is ...' in the notes. Another blue arrow points from the output to the text 'in /Users/rohit...' in the notes. A green circle highlights the output text.

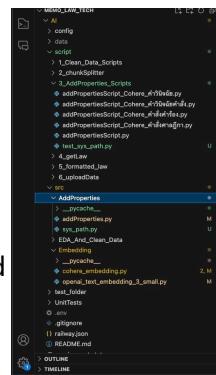
```
import sys
print(sys.path)
```

Output:
[...]
0) → loan module's folder is memo_law_tech
↓
current path is .../
0) → file
current path is .../
0) → /Users/rohit/PycharmProjects/Python_Lecture_1
In [1]: if __name__ == '__main__':
 print(sys.path)
Out[1]: [...]

current: s>Add
upt: script
upt: A2
upt: memo_law_tech

A module is a Python file that's intended to be imported into scripts or other modules.

A package is a collection of python files. These files are specifically placed within a folder. Ex, python class files dog.py, cat.py, and rat.py would be placed under folder animal, then folder animal would be the package.



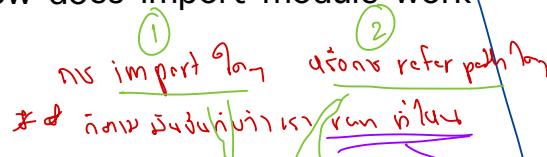
(file)
module → cohene_embedding.py

(folder)
package → AddProperties

2. How to set folder structure and how does import module work

Firstly, we need to understand that every path would relate to how(where) we run the script

I would use these 3 files as an example



module1 (as a script)

```
module1
├── config
│   ├── __init__.py
│   └── config.py
├── data
│   ├── __init__.py
│   └── data.py
└── models
    ├── __init__.py
    └── memo_low.py
```

module2 (in src) (call module1)

```
module2
├── config
│   ├── __init__.py
│   └── config.py
├── data
│   ├── __init__.py
│   └── data.py
└── models
    ├── __init__.py
    └── memo_low.py
```

module3

```
module3
├── config
│   ├── __init__.py
│   └── config.py
├── data
│   ├── __init__.py
│   └── data.py
└── models
    ├── __init__.py
    └── memo_low.py
```

When we run we would run at directory of module1 (scripts)

```
# (memo_low) sirasittamrattanawong@irisits-air ~_AddProperties_Scripts % python test_sys_path
project root is : ../../.
before sys.path is ['~/Users/sirasittamrattanawong/Downloads/memo_low/tech/ai/script/_AddProperties_Scripts', '/Users/sirasittamrattanawong/opt/anaconda3/envs/memo_low/tech/lib/python3.8.zip', '/Users/sirasittamrattanawong/opt/anaconda3/envs/memo_low/tech/lib/python3.8', '/Users/sirasittamrattanawong/opt/anaconda3/envs/memo_low/tech/lib/python3.8/lib-dynload', '/Users/sirasittamrattanawong/opt/anaconda3/envs/memo_low/tech/lib/python3.8/site-packages']
Index 0 of sys.path (current path/dir) is : /Users/sirasittamrattanawong/Downloads/memo_low/tech/ai/script/_AddProperties_Scripts
After sys.path is ['../../', '/Users/sirasittamrattanawong/Downloads/memo_low/tech/ai/script/_AddProperties_Scripts', '/Users/sirasittamrattanawong/opt/anaconda3/envs/memo_low/tech/lib/python3.8.zip', '/Users/sirasittamrattanawong/opt/anaconda3/envs/memo_low/tech/lib/python3.8', '/Users/sirasittamrattanawong/opt/anaconda3/envs/memo_low/tech/lib/python3.8/lib-dynload', '/Users/sirasittamrattanawong/opt/anaconda3/envs/memo_low/tech/lib/python3.8/site-packages']

[0.0197408, 0.0362488, -0.00022957, 0.038223267, -0.000350652, 0.01549255, 0.0002063675, -0.037322996, -0.035951416, -0.02005398, -0.04647236, -0.0026607513, 0.0]
```

ສ່າງນີ້

```
(memo_low) sirasittamrattanawong@irisits-air ~_AddProperties_Scripts % python test_sys_path
project root is : ../../.
before sys.path is ['~/Users/sirasittamrattanawong/Downloads/memo_low/tech/ai/script/_AddProperties_Scripts', '/Users/sirasittamrattanawong/opt/anaconda3/envs/memo_low/tech/lib/python3.8.zip', '/Users/sirasittamrattanawong/opt/anaconda3/envs/memo_low/tech/lib/python3.8', '/Users/sirasittamrattanawong/opt/anaconda3/envs/memo_low/tech/lib/python3.8/lib-dynload', '/Users/sirasittamrattanawong/opt/anaconda3/envs/memo_low/tech/lib/python3.8/site-packages']
```

ສ່າງນີ້ run in folder AI_Scripts
with path injection
when we run the script
not path from that module.

ສ່າງນີ້ run in AI_Scripts
fix = append path to code

ກີ່ຈະເຮັດຕິດການຂົບສົກເກມ

1. ໃນ code ອາຍຸ module 1 ໂດຍ run ຮຽນ run ອັນ folder 3-A22 —

ໃຫ້ຈາກລາຍກື sys.path.insert ມີຄວາມ search ອີ່ memo_low_tech ດ້ວຍ

2. ; ໃນ module 2 ມີ import module 3 ປໍ່ນາງ

From AZ.svc.Embedding coherence-embedding

ໃຊ້ໄດ້ພູມໄຫວ່າພຽງວ່າ ລາຍລະອຽດ ມີຄວາມ search ອີ່ໂທ່ອນບັນຍາ

memo_low_tech ວິທີອຸ່ນຍຸ່ນຕັ້ງ run script
ດີຫຼັມນີ້ 3-A22 — ມີ
ຖືກຕາມຕຳຫຼາດນີ້ ແລ້ວ
path ໃຫຍ້ ຕ້ອງ

3. In modules

```
dotenv_path = Path('.../../.env')
config = load_dotenv(dotenv_path=dotenv_path)
```

ກ່າວກົດຂອງ ພົມທີ່ໃນ run script ດີກົດ

ໃນ folder 3-A22 —

ກີ່ຈະປັບປຸງ sys.path ອີ່ນາງໃນ module 1 ເກືອກຕິດການຂົບສົກເກມ

ஏக்ஸிள்கூ டுமெல் இது வீரப்பதை
இல்லாத sys.path.insert நை தெய்ய

3. Questions

1. டுமெல்

இல்லாத sys.path.insert நை என்று சொல்ல ஒன்று

இம்மேதுக்கூறு இல்லை

நிர்ணயம் கிடைக்கவேண்டும்

The terminal window displays the following Python code:

```
MEMO_LAW_TECH
└── AI
    ├── __init__.py
    ├── config
    └── data
        └── sorted
            ├── Clean_Data_Scripts
            ├── 2_shredder
            └── 3_AddProperties_Scripts
                ├── addPropertiesScript_Cohere_dHeld.py
                ├── addPropertiesScript_Cohere_dHeldTest.py
                ├── addPropertiesScript_Cohere_dHeldTest.py
                ├── addPropertiesScript_Cohere_dHeldTest.py
                └── addPropertiesScript.py
            └── 4_getLaw
            └── 5_formatted_law
        └── uploadData
    └── test_folder
    └── UnitTests
        ├── __init__.py
        └── ai
            └── glib.json
    └── requirements.txt
    └── backend
    └── data
    └── frontend
```

PROBLEMS: 0 OUTPUT DEBUG CONSOLE TERMINAL POINTS

```
MEMO_LAW_TECH$ sircus@rataranamengovirais-air:~/memo_law_tech$ python AI/script/3_AddProperties_Scripts/test_sys_path.py
Traceback (most recent call last):
  File "AI/script/3_AddProperties_Scripts/test_sys_path.py", line 38, in <module>
    from AI.ai.AddProperties import test
ModuleNotFoundError: No module named 'AI.ai.AddProperties'
MEMO_LAW_TECH$
```

2. நை கட்டும் விதம் என்ன என்ன என்ன

3. ஓ-லை சுட்டு.பி க்கு

4. ດ້ວຍເຫັນ script ຮັດໃຫຍ່ໄວ້ເລີ້ມ

run

ອຸປະກອນ run ທີ່ມານີ້ ຮັດໃຫຍ່ເລີ້ມ
ເຖິງຈົ່າລົບ

ພົກເວນຕົວ script ຮັດໃຫຍ່ເລີ້ມ

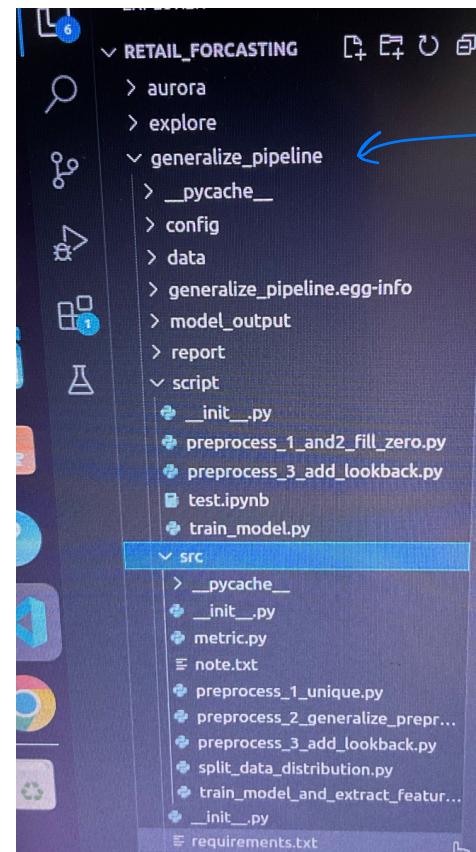
ເພື່ອມີ import ສົກສະ input ໂດຍ

ທີ່ມານີ້

វិវាទប្រតិទិន្យ project នៃខ្សោយ ពេលវេលាដែលបានបង្កើតឡើង

នៅ internship ខាងក្រោម ពេកវាល់រៀនពីវិវាទប្រតិទិន្យ

នូវ impact ខ្លួន



folderr

នូវឯកសារ

import SRC

យើងទៅ!!

```
> .env
> explore
> generalize_pipeline
> __pycache__
> config
> data
> generalize_pipeline.egg-info
> model_output
> report
> script
> __init__.py
> preprocess_1_and2_fill_zero.py
> preprocess_3_add_lookback.py
> test.ipynb
> train_model.py

> src
> __pycache__
> __init__.py
> metric.py
> note.txt
> preprocess_1_unique.py
> preprocess_2_generalize_prep...
> preprocess_3_add_lookback.py
> split_data_distribution.py
> train_model_and_extract_featur...
> __init__.py
> requirements.txt
```

```
1 from generalize_pipeline.src.train_model_and_extract_featu...
2 from generalize_pipeline.src.preprocess_1_unique import ...
3
4 def main():
5     unique_processing = UniqueProcessing()
6     read_path = './generalize_pipeline/data/group_df_train'
7     group_df_train_with_lookback_all_data_before_split =
8
9
10
11     average_total_months_back_baseline0 = 3
12     save_path_baseline0 = './generalize_pipeline/data/bas...
13     overwritten_baseline0 = False
14
15
16
17     train_model_and_extract_feature = TrainModelAndExtractF...
18     average_list, y_test_prediction, model_output = train_m...
19     print(average_list), len(y_test_prediction)
20
21
22
23
24     if __name__ == '__main__':
25         main()
```

Solve1. Set python anaconda path (from chatgpt first)

How Python search for imported module/package

<https://medium.com/@sachinsoni600517/how-python-search-for-imported-module-package-76cf0da5f690>

How to set environment variables in a conda virtual environment

<https://guillaume-martin.github.io/saving-environment-variables-in-conda.html>

set anaconda python path

<https://www.geeksforgeeks.org/how-to-setup-anaconda-path-to-environment-variable/>

1. Create conda env like before.
2. Conda env list to find path of conda env

```
1 day   ● (retail2) ( .venv ) loolootech@loolootech:~/Downloads/retail_forcasting$ conda env list
2 days
# conda environments:
#
base          /home/loolootech/anaconda3
italasia      /home/loolootech/anaconda3/envs/italasia
retail2        * /home/loolootech/anaconda3/envs/retail2
retail_forcast_pipeline /home/loolootech/anaconda3/envs/retail_forcast_pipeline
```

3. set path → *will reference to the previous step*

2. Navigate to the Activation Directory:

Conda environments have a directory for activation scripts. We will create one if it doesn't exist.

```
sh
mkdir -p /home/loolootech/anaconda3/envs/retail_forcast_pipeline/etc/conda/activate.d
```

3. Create the Activation Script:

Create a new script file named 'env_vars.sh' in the 'activate.d' directory.

```
sh
vim /home/loolootech/anaconda3/envs/retail_forcast_pipeline/etc/conda/activate.d/env_vars.sh
```

4. Add the Following Content to Set the 'PYTHONPATH':

Press 'i' to enter insert mode, then add the following line:

```
sh
export PYTHONPATH=/home/loolootech/Downloads/retail_forecasting:$PYTHONPATH
```

5. Save and Close the File:

- Press Esc to exit insert mode.
- Type :wq and press Enter to save and quit vim.

3. Create Deactivation Script (Optional but Recommended)

To clean up the environment variable when you deactivate the Conda environment, you can create a deactivation script.

1. Navigate to the Deactivation Directory:

```
sh
mkdir -p /home/loolootech/anaconda3/envs/retail_forcast_pipeline/etc/conda/deactivate.d
```

2. Create the Deactivation Script:

Create a new script file named 'env_vars.sh' in the 'deactivate.d' directory.

```
sh
vim /home/loolootech/anaconda3/envs/retail_forcast_pipeline/etc/conda/deactivate.d/env_vars.sh
```

3. Add the Following Content to Unset the 'PYTHONPATH':

Press 'i' to enter insert mode, then add the following line:

```
sh
unset PYTHONPATH
```

4. Save and Close the File:

 - Press Esc to exit insert mode.
 - Type :wq and press Enter to save and quit vim.

Running Your Script

Now, whenever you activate your Conda environment, the 'PYTHONPATH' will be set automatically.

1. Activate Your Conda Environment:

```
sh
conda activate retail_forcast_pipeline
```

2. Navigate to Your Project Directory:

```
sh
cd /home/loolootech/Downloads/retail_forecasting
```

3. Run Your Script:

```
sh
python generalize_pipeline/script/preprocess.py
```

reference

Now, we need to create scripts that will set our environment variables whenever we activate our virtual environment and unset them when we deactivate. The path to our environment directory is set as \$CONDA_PREFIX. We cd to that directory and create a /etc/conda/activate.d and a /etc/conda/deactivate.d directory:

```
(my_environment)$ cd $CONDA_PREFIX
(my_environment)$ mkdir -p ./etc/conda/activate.d
(my_environment)$ mkdir -p ./etc/conda/deactivate.d
```

In each of those directories, we create a env_var.sh script where we'll write the commands to set and unset our variables:

```
(my_environment)$ touch ./etc/conda/activate.d/env_vars.sh
(my_environment)$ touch ./etc/conda/deactivate.d/env_vars.sh
```

or run pip install -r requirements.txt

```
RETAIL_FORCASTING
  > aurora
  > explore
  > generalize_pipeline
    > __pycache__
    > config
    > data
    > generalize_pipeline.egg-info
    > model_output
    > report
  > script
    > __init__.py
    > preprocess_1_and2_fill_zero.py
    > preprocess_3_add_lookback.py
    > test.ipynb
    > train_model.py
  > src
    > __pycache__
    > __init__.py
    > metric.py
    > note.txt
    > preprocess_1_unique.py
    > preprocess_2_generalize_prep...
    > preprocess_3_add_lookback.py
    > split_data_distribution.py
    > train_model_and_extract_featur...
    > __init__.py
    > requirements.txt
  > generalize_pipeline.egg-info
  > italiasa
```

```
generalize_pipeline > script > train_model.py > main
1   from generalize_pipeline.src.train_model_and_extract_feature import TrainModelAndExtractFeature
2   from generalize_pipeline.src.preprocess_1_unique import UniqueProcessing
3
4   def main():
5       unique_processing = UniqueProcessing()
6       read_path = "./generalize_pipeline/data/group_df_train_with_lookback_all_data_before_split.csv"
7       group_df_train_with_lookback_all_data_before_split = unique_processing.read_file(read_path)
8
9
10      average_total_months_back_baseline0 = 3
11      save_path_baseline0 = "./generalize_pipeline/data/baseline_0_{average_total_months_back_baseline0}_months_
12      overwritten_baseline0 = False
13
14
15      train_model_and_extract_feature = TrainModelAndExtractFeature()
16      average_list, y_test_prediction, model_output = train_model_and_extract_feature.runall(group_df_train_with_lo
17
18      print(len(average_list), len(y_test_prediction))
19
20
21
22
23  if __name__ == "__main__":
24      main()
```

:, សារធំនេះជាការបង្រាយការណ៍

សម្រាប់បញ្ចូលពីការណ៍
ឱ្យ run script ឲ្យឱ្យ

ឱ្យ run នៅពីនៅវា path នេះ

```
(retail2) (.venv) loolootech@loolootech:~/Downloads/retail_forcasting$ pwd
/home/loolootech/Downloads/retail_forcasting
(retail2) (.venv) loolootech@loolootech:~/Downloads/retail_forcasting$ python generalize_pipeline/script/train_model.py
```

Important key

1. Set anaconda python path to retail_store

2.1 when we want to run anything we would run at retail_store folder ex. python generalize_pipeline/script/train_model.py

2.2 same as before path would relate to where we run the script.

2.3 we set anaconda python path and run the script at retail_store folder when we import we would think that that is our folder path ex. from generalize_pipeline.src.train_model_and_extract_feature import TrainModelAndExtractFeature

```
RETAIL_FORCASTING
  aurora
  explore
  generalize_pipeline
    > .pycache_
    > config
    > data
    > generalize_pipeline.egg-info
    > model_output
    > report
  script
    > __init__.py
    > preprocess_1_and2_fill_zero.py
    > preprocess_3_add_lookback.py
    > test.ipynb
    > train_model.py
  src
    > __pycache__
    > __init__.py
    > metric.py
  note.txt
  preprocess_1_unique.py
  preprocess_2_generalize_prep...
  preprocess_3_add_lookback.py
  split_data_distribution.py
  train_model_and_extract_featu...
  __init__.py
  requirements.txt
  generalize_pipeline.egg-info
  setup.py

generalize_pipeline > script > train_model.py > main
main.py

1 from generalize_pipeline.src.train_model_and_extract_feature import TrainModelAndExtractFeature
2
3 def main():
4     unique_processing = UniqueProcessing()
5     read_path = ".generalize_pipeline/data/group_df_train_with_lookback_all_data_before_split.csv"
6     group_df_train_with_lookback_all_data_before_split = unique_processing.read_file(read_path)
7
8     average_total_months_back_baseline0 = 3
9     save_path_baseline0 = "./generalize_pipeline/data/baseline_0_{average_total_months_back_baseline0}_months"
10    overwritten_baseline0 = False
11
12    train_model_and_extract_feature = TrainModelAndExtractFeature()
13    average_list, y_test_prediction, model_output = train_model_and_extract_feature.runall(group_df_train_with_lo
14
15
16
17
18
19
20
21
22
23 if __name__ == "__main__":
24     main()
```

```
Edit Selection View Go Run Terminal Help
RETAIL_FORCASTING
  aurora
  explore
  generalize_pipeline
    > .pycache_
    > config
    > data
    > generalize_pipeline.egg-info
    > model_output
    > report
  script
    > __init__.py
    > preprocess_1_and2_fill_zero.py
    > preprocess_3_add_lookback.py
    > test.ipynb
    > train_model.py
  src
    > __pycache__
    > __init__.py
    > metric.py
  note.txt
  preprocess_1_unique.py
  preprocess_2_generalize_prep...
  preprocess_3_add_lookback.py
  split_data_distribution.py
  train_model_and_extract_featu...
  __init__.py
  requirements.txt
  generalize_pipeline.egg-info
  setup.py

generalize_pipeline > script > preprocess_3_add_lookback.py > main
main.py

1 from generalize_pipeline.src.preprocess_3_add_lookback import LookBack
2 from generalize_pipeline.src.preprocess_1_unique import UniqueProcessing
3
4 def main():
5     lookback = LookBack()
6     unique_processing = UniqueProcessing()
7     read_path = ".generalize_pipeline/data/encoded_df_fill_zero.csv"
8     encoded_df_fill_zero = unique_processing.read_file(read_path)
9
10    # this should be in config
11    save_path = ".generalize_pipeline/data/group_df_train_with_lookback_all_data_before_split.csv"
12    group_df_train_with_lookback_all_data_before_split = lookback.add_look_back(encoded_df_fill_zero, save
13
14
15
16
17
18
19 if __name__ == "__main__":
20     main()
```

```

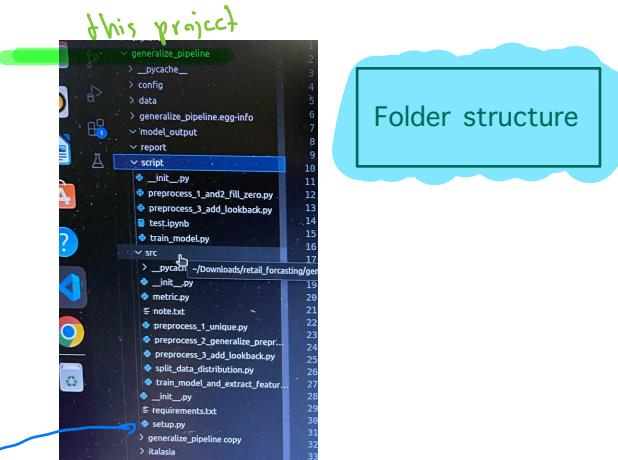
1 from generalize_pipeline.src.preprocess_1_unique import UniqueProcessing
2 from generalize_pipeline.src.preprocess_2_generalize_preprocess_fill_zero import GeneralizePreprocessingFillZero
3
4 def main():
5     unique_processing = UniqueProcessing()
6     generalize_processing_fill_zero = GeneralizePreprocessingFillZero()
7
8     file_path = "./generalize_pipeline/data/ITALASIA SHOP DATA 2023.parquet" # this should be in config
9     original_df = unique_processing.read_file(file_path)
10    rename_dict = {
11        "date": "date",
12        "price": "price",
13        "unit": "volume",
14        "type": "product",
15        "category": "category",
16        "outlet": "outlet",
17        "outlet_code": "outlet_code",
18        "discount": "discount",
19        "return": "return",
20        "SKU ID": "SKU ID",
21        "SKU Name": "SKU Name", # Ճաղավածք (brand)
22        "Product Group": "Brand",
23    }
24
25    df = unique_processing.unique_preprocess(original_df, rename_dict)
26
27
28    # should be in config
29    selected_cols = ["outlet code", "Brand", "Product Type", "SKU ID", "unit", "volume", "date"]
30    categorical_cols = ["SKU ID", "Brand", "Product Type", "unit", "outlet code"]
31    feature_cols = [col for col in selected_cols if col not in ["outlet code", "SKU ID", "volume", "date"]]
32    cols_to_be_grouped_by_first = ["Brand", "Product Type", "unit"]
33    cols_to_be_grouped_by_sum = ["volume"]
34
35    save_path = "./generalize_pipeline/data/encoded_df_fill_zero.csv"
36
37    generalize_processing_fill_zero.run_all(df, selected_cols, categorical_cols, feature_cols, cols_to_be_grouped_by_first, cols_to_be_grouped_by_sum, save_path)
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```


Solve2 setup.py

setup.py file python tutorial

<https://xebia.com/blog/a-practical-guide-to-using-setup-py/>



This project

Folder structure

```
1 from setuptools import setup, find_packages
2
3 setup(
4     name='generalize_pipeline',
5     version='0.1',
6     packages=find_packages(), # Finds all packages under the current directory
7     python_requires='>=3.10', # Specify the required Python version
8     install_requires=[
9         'pandas==2.2.2',
10        'pyarrow==16.1.0',
11        'fastparquet==2024.5.0',
12        'matplotlib==3.9.0',
13        'plotly==5.22.0',
14        'nbformat==5.10.4',
15        'seaborn==0.13.2',
16        'statsmodels==0.14.2',
17        'xgboost==2.0.3',
18        'lightgbm==4.3.0',
19        'pyproject-toml==0.8.10',
20        'scikit-learn==1.5.0',
21    ],
22)
23
```

0. crack contd env.

1. Create setup.py file at root of the project (in generalize_pipeline) (1 step inside compared to before)
2. pip install -e . at the folder that consists of setup.py
3. Now path would be generalize_pipeline not retail _store so you need to change import code and path compared to above

In scripts folder example (one step inside compare to solve)

preprocess_1_and2_fill_zero.py

```
from src.preprocess_1.unique import UniqueProcessing
from src.preprocess_2.generalize_preprocess_fill_zero import GeneralizePreprocessingFillZero

def main():
    unique_processing = UniqueProcessing()
    generalize_processing_fill_zero = GeneralizePreprocessingFillZero()

    file_path = "./data/ITALASIA SHOP DATA 2023.parquet" # this should be in config
    original_df = unique_processing.read_file(file_path)
    rename_dict = [
        {"ชื่อ": "date",
        "รายละเอียด": "price",
        "จำนวน": "volume",
        "มูลค่า": "total_price",
        "มูลค่ารวม VAT": "total_revenue",
        "หน่วย": "unit",
        "Outlet Name": "outlet",
        "Outlet Code": "outlet_code",
        "ส่วนลด": "discount",
        "ผลิตภัณฑ์": "is_return",
        "SKU": "SKU ID",
        "SKU Name": "SKU Name", # ชื่อในชิ้นงาน (brand)
        "Product Group": "Brand", }
    ]
    df = unique_processing.unique_preprocess(original_df, rename_dict)

    # should be in config
    selected_cols = ["outlet_code", "Brand", "Product Type", "SKU ID", "unit", "volume", "date"]
    categorical_cols = ['SKU ID', 'Brand', 'Product Type', 'unit', 'outlet_code']
    feature_cols = [col for col in selected_cols if col not in ['outlet_code', 'SKU_ID', 'volume', 'date']]
    cols_to_be_grouped_by_first = ['Brand', 'Product Type', 'unit']
    cols_to_be_grouped_by_sum = ['volume']
    save_path = "./data/encoded_df_fill_zero.csv"
    generalize_processing_fill_zero.run_all(df, selected_cols, categorical_cols, feature_cols, cols_to_be_grouped_by_sum)
```

```
che requirements.txt setup.py
tech@loolotech:~/Downloads/retail_forcasting/generalize_pipeline$ python script/preprocess_1_and2_fill_zero.py
```

run at

Config file

Method1

1. Write yaml file and load

```
RETAIL_FORECASTING
  > aurora
  > explore
  > generalize_pipeline
    > __pycache__
    > config
      ! preprocess1_config.yaml
      ! preprocess2_config.yaml
    > data
    > generalize_pipeline.egg-info
    > mode_output
    > outputs
    > report
    > report.txt
    > script
      < __init__.py
      < preprocess_1_unique_script.py
      < preprocess_2_fill_zero.py
      < preprocess_3_add_lookback.py
      test.ipynb
      train_model.py
    > src
    > temp
    > report.txt
    < __init__.py
    < .gitignore
  README.md
```

```
generalize_pipeline > config > ! preprocess2_config.yaml
1 # generalize_pipeline/config/preprocess2_config.yaml
2
3 group_outlet_code: true
4 file_path: "./data/preprocessed_data.csv"
5 save_path: "./data/encoded_df_fill_zero.csv"
6 selected_cols:
7   - SKU_ID
8   - year
9   - month
10  - day
11  - target
12  - Brand
13  - Product Type
14  - unit
15 categorical_cols:
16   - SKU_ID
17   - Brand
18   - Product Type
19   - unit
20 feature_cols:
21   - Brand
22   - Product Type
23   - unit
24 cols_to_be_grouped_by_first:
25   - Brand
26   - Product Type
27   - unit
28 cols_to_be_grouped_by_sum:
29   - target
```

relative to where you run
(from setup.py file)

search command : yaml file tutorial medium

link : <https://medium.com/buildpiper/all-you-need-to-know-about-yaml-files-8fa319b1f26f>

search command : how to load yaml file in python

link : <https://python.land/data-processing/python-yaml>

```
RETAIL_FORECASTING
  > aurora
  > explore
  > generalize_pipeline
    > __pycache__
    > config
      preprocess1_config.yaml
      preprocess2_config.yaml
    > data
    > generalize_pipeline.egg-info
    > mode_output
    > outputs
    > report
    > report.txt
    > script
      < __init__.py
      < preprocess_1_unique_script.py
      < preprocess_2_fill_zero.py
      < preprocess_3_add_lookback.py
      test.ipynb
      train_model.py
    > src
    > temp
    > report.txt
    < __init__.py
    < .gitignore
  README.md
```

```
generalize_pipeline > config > preprocess2_config.yaml
1 import yaml
2 from src.preprocessing_1_unique import UniqueProcessing
3 from src.preprocessing_2_generalize import GeneralizePreprocessingFillZero
4
5 def load_config(config_path):
6     with open(config_path, 'r') as file:
7         config = yaml.safe_load(file)
8     return config
9
10 def main():
11     config = load_config("./config/preprocess2_config.yaml")
12
13     # Main function to preprocess and transform data.
14
15     # This function reads a parquet file, renames its columns, and applies preprocessing steps.
16     # Finally, it runs a general preprocessing step to fill missing values and saves the transformed
17     # data to a CSV file.
18
19     Arguments
20     -----
21     None
22
23     Returns
24     -----
25     None
26
27     # Load configuration values
28     config = load_config("./config/preprocess2_config.yaml")
29     unique_processing = UniqueProcessing()
30     generalize_processing_fill_zero = GeneralizePreprocessingFillZero()
31
32     # Get configuration values
33     group_outlet_code = config['group_outlet_code']
34     file_path = config['file_path']
35
36     selected_cols = config['selected_cols']
37     categorical_cols = config['categorical_cols']
38     feature_cols = config['feature_cols']
39     cols_to_be_grouped_by_first = config['cols_to_be_grouped_by_first']
40     cols_to_be_grouped_by_sum = config['cols_to_be_grouped_by_sum']
41
42     # Add 'outlet_code' if group_outlet_code is True
43     if group_outlet_code:
44         required_cols.append('outlet_code')
45         selected_cols.append('outlet_code')
46         categorical_cols.append('outlet_code')
47         feature_cols.append('outlet_code')
48
49     group_level = ['SKU_ID']
50
51     if group_outlet_code:
52         required_cols.append('outlet_code')
53         selected_cols.append('outlet_code')
54         categorical_cols.append('outlet_code')
55
56     # Read the original data file
57     df = unique_processing.read_file(file_path)
58     generalize_processing_fill_zero.run_all(df,
59                                             required_cols,
60                                             selected_cols,
61                                             categorical_cols,
62                                             feature_cols,
```

how to load

load and use

Method2 hydra (a little different from openthaigt)

Link : <https://medium.com/@jh.baek.sd/mastering-configuration-management-in-python-with-hydra-with-omegacnf-a-comprehensive-guide-5cf1d38e01f7>