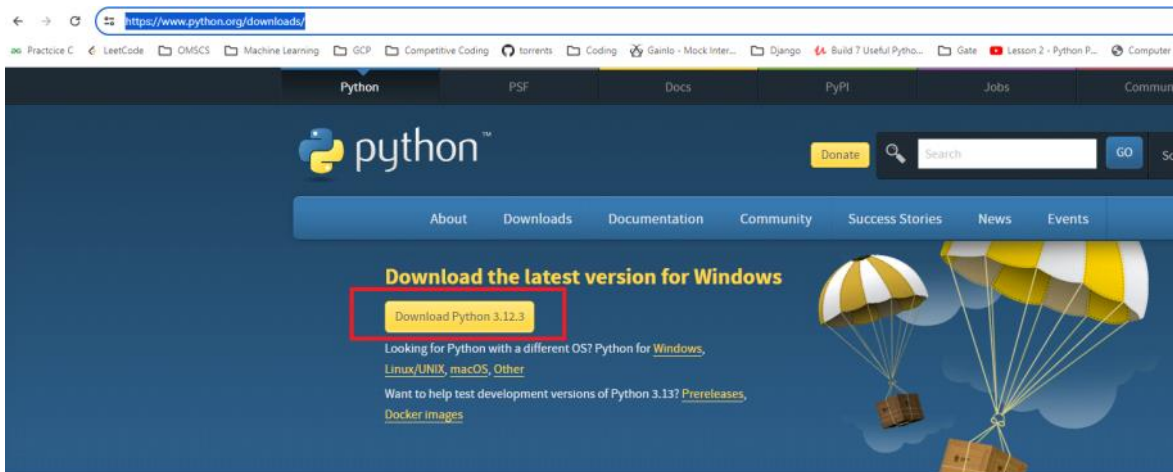


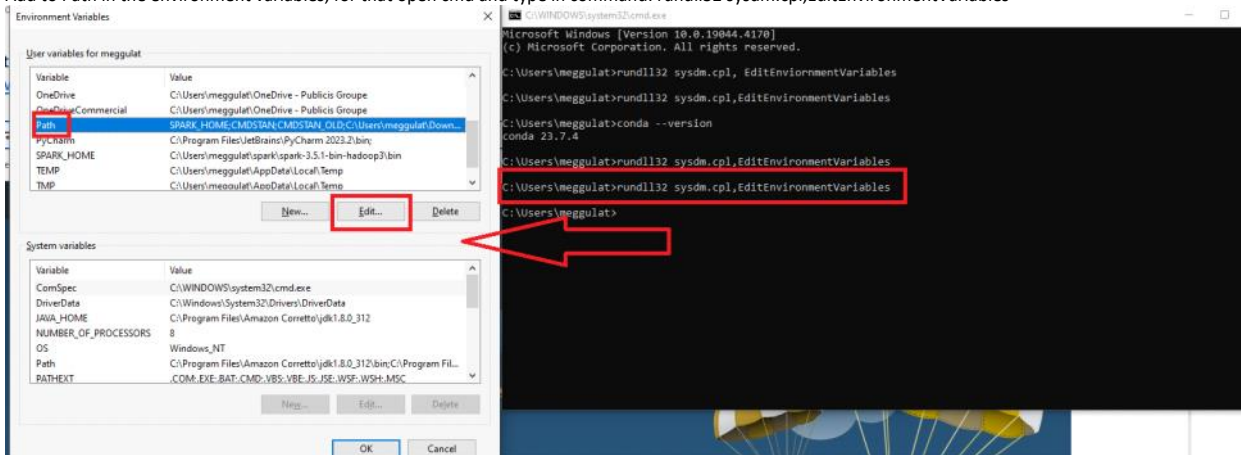
Installation

Saturday, April 20, 2024 10:47 AM

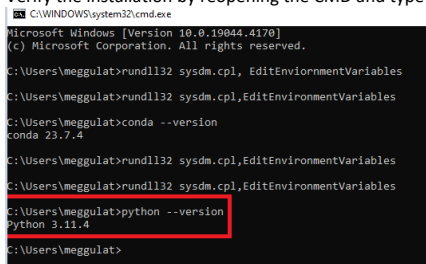
- 1) Download Python For Windows:
 - a. <https://www.python.org/downloads/>



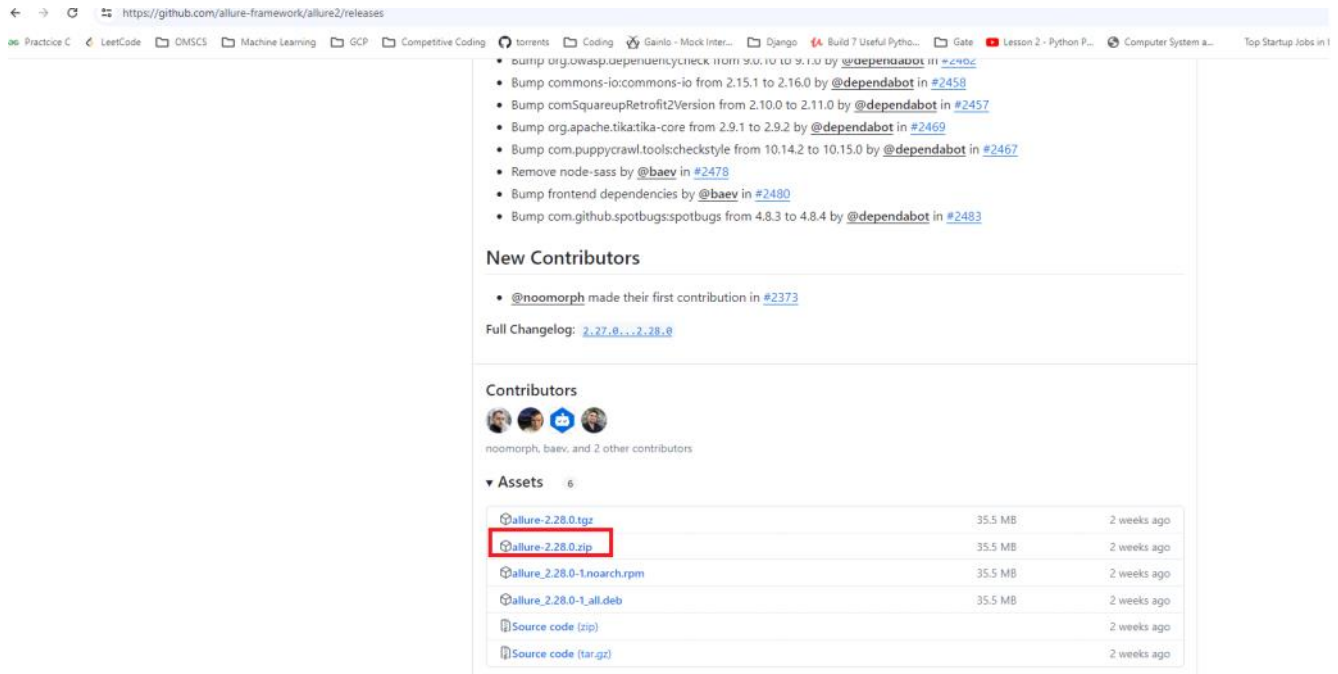
- b. Open the folder and follow the installation process.
 - c. Add to Path in the environment variables, for that open cmd and type in command: `rundll32 sysdm.cpl,EditEnvironmentVariables`



- d. Click on Ok and close the CMD.
 - e. Verify the installation by reopening the CMD and type in command: `python --version`. Following is the expected output- (version may vary)



- 2) Download Anaconda : Installer given in README folder. Verify installation by typing command: `conda --version` in CMD - check image above for expected result.
- 3) Download Allure: <https://github.com/allure-framework/allure2/releases>



- Extract the folder and follow installation process.
- Add the bin folder to Path in Environment Variables, for example: C:\Users\meggulat\Downloads\allure-2.28.0\allure-2.28.0\bin
- Verify the installation by opening CMD and typing in the command: allure --version

```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 10.0.19044.4170]
(c) Microsoft Corporation. All rights reserved.

C:\Users\meggulat>allure --version
2.28.0
C:\Users\meggulat>
```

- Open cmd and go to project path, for example: C:\Users\meggulat\Documents\team084final\CODE\Consumer Debt Analysis\envs
- Type in command: conda env create -f env.yml [This might take some time since it installs all libraries needed to run the code and create a conda environment]
- Type in command: conda activate proj_env [Ignore any errors like below, main thing to notice is that environment name should be displayed before the path]

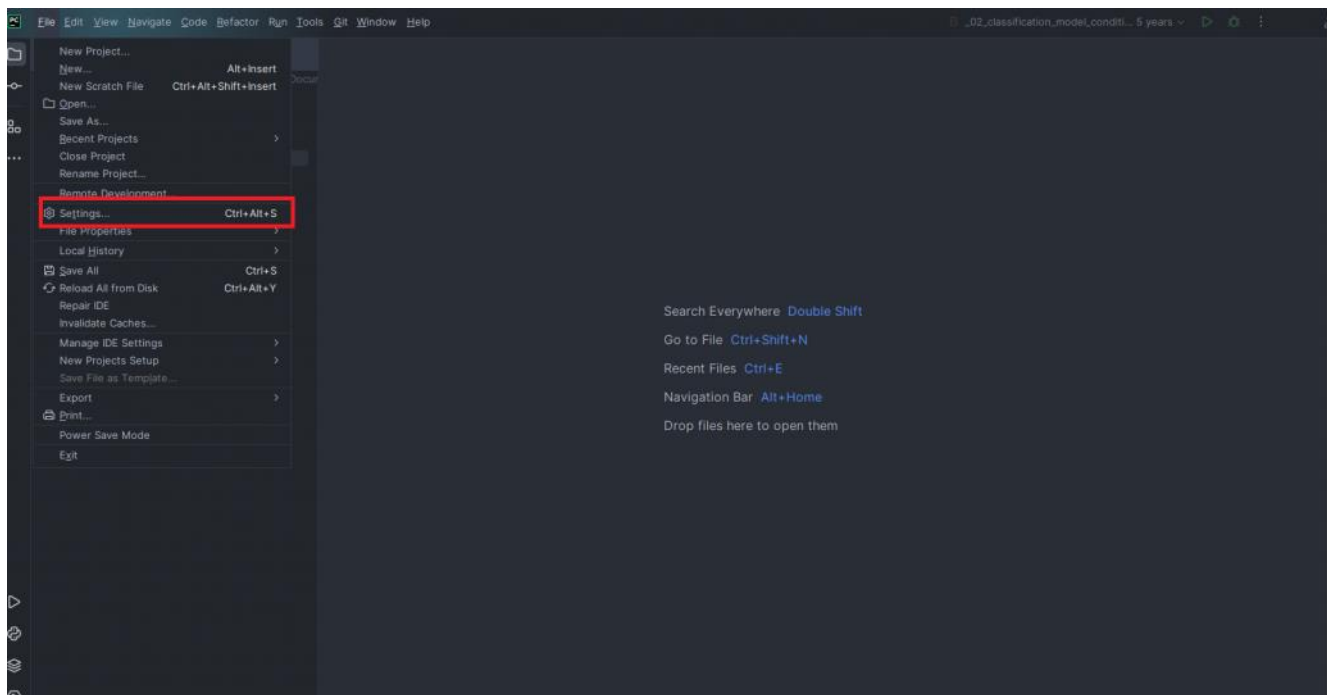
```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 10.0.19044.4170]
(c) Microsoft Corporation. All rights reserved.

C:\Users\meggulat>allure --version
2.28.0
C:\Users\meggulat>cd Documents
C:\Users\meggulat\Documents>cd Consumer Debt Analysis
C:\Users\meggulat\Documents\Consumer Debt Analysis>conda activate proj_env
C:\Users\meggulat\Documents\Consumer Debt Analysis>SET CHDSTAN_OLD=C:\Users\meggulat\AppData\Local\anaconda3\envs\projec
e_environment\Library\bin\cmdstan\
C:\Users\meggulat\Documents\Consumer Debt Analysis>SET CHDSTAN=C:\Users\meggulat\AppData\Local\anaconda3\envs\proj_env\L
ibrary\bin\cmdstan\
(proj_env) C:\Users\meggulat\Documents\Consumer Debt Analysis>
```

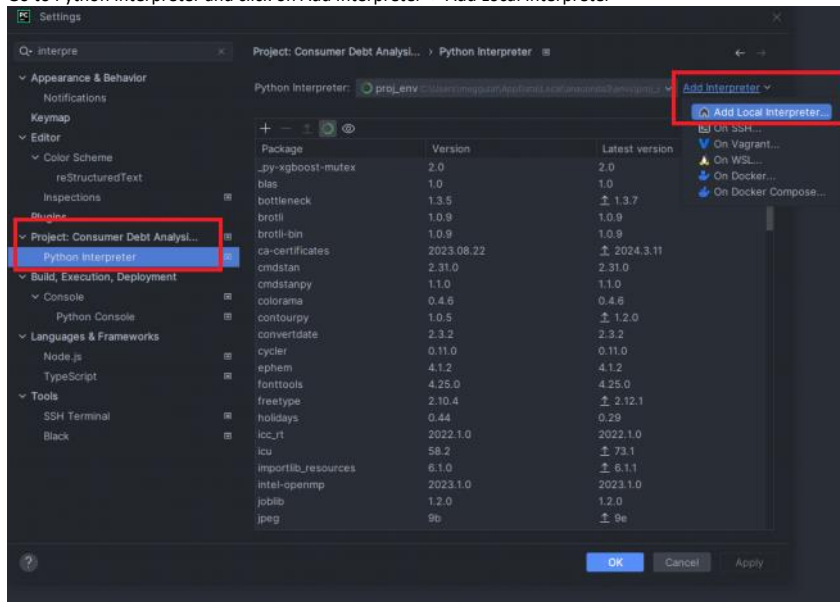
[The project can be run in CMD now]

METHOD 2[PYCHARM] - Preferred for detailed view of all the modules and running all the scenarios separately.

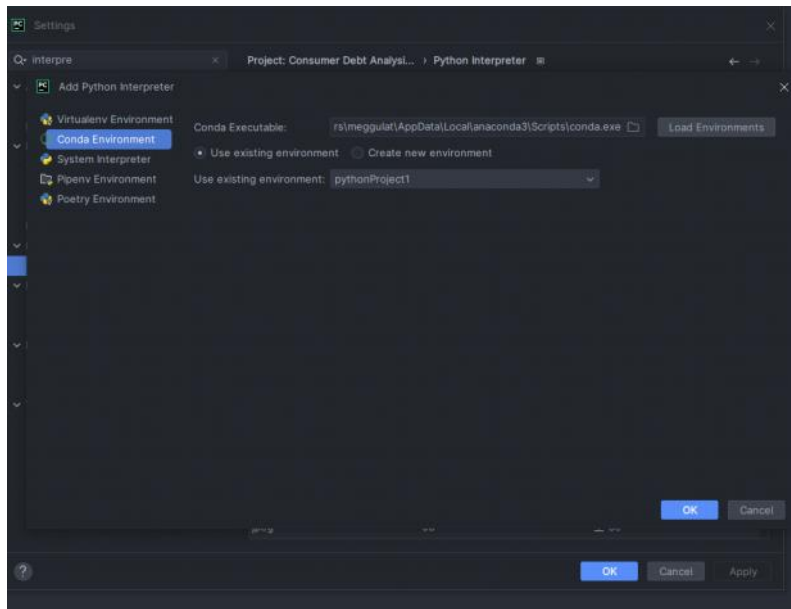
- Download Pycharm: <https://www.jetbrains.com/pycharm/download/?section=windows> [community edition is free]
- Open the project in PyCharm IDE
- Wait for the dependencies to install
- Go to Terminal which is inbuilt in Pycharm: Type in command: conda activate proj_env
- If above command does not run-
 - Go to Settings



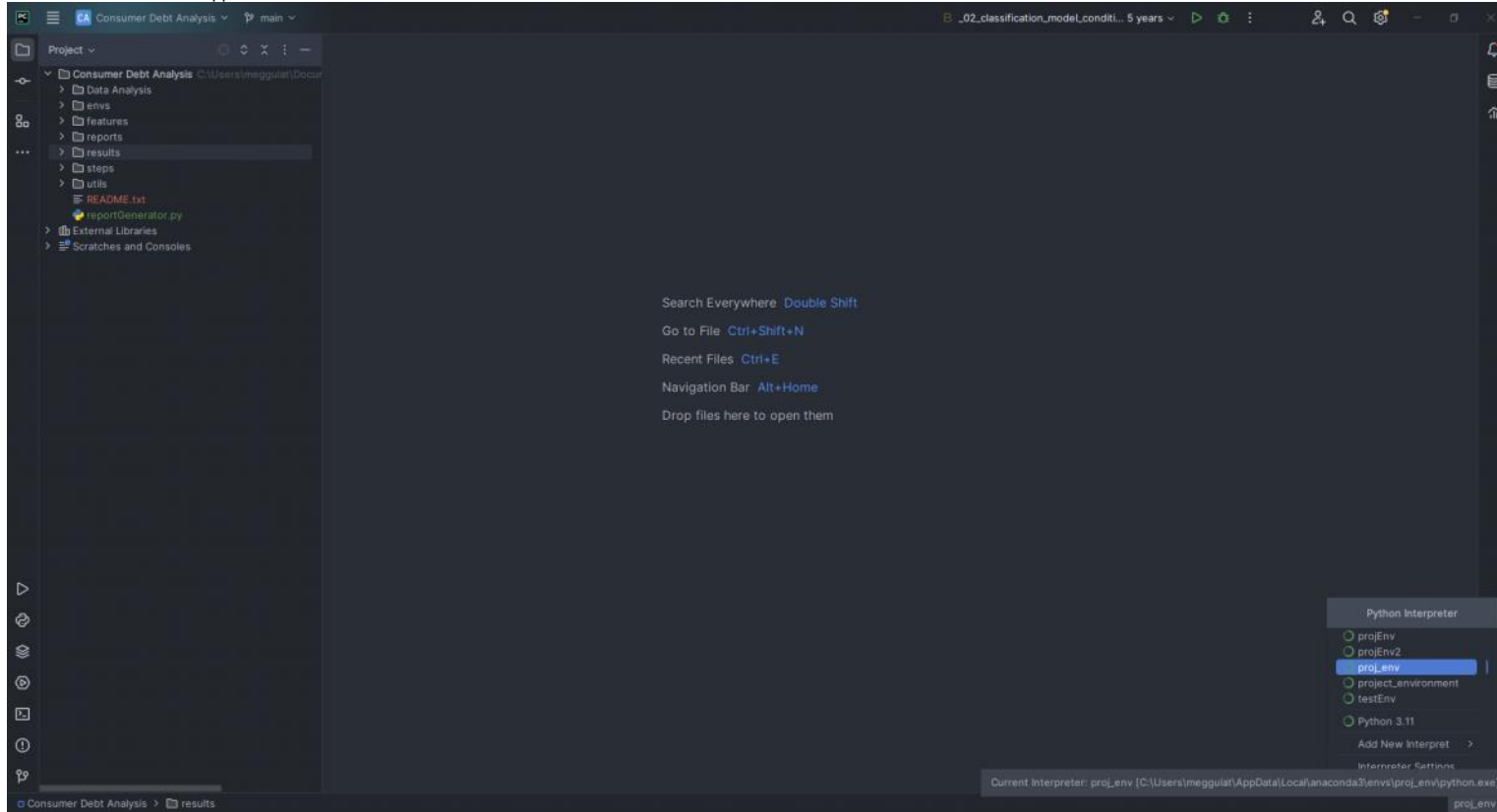
b. Go to Python Interpreter and click on Add Interpreter -> Add Local Interpreter



c. Go to Conda Environment -> Click on Load Environments and search for Anaconda executable file. For Example: C:\Users\meggulat\AppData\Local\anaconda3\Scripts\conda.exe -> Click on Load Environments after that -> proj_env will be displayed in the Use existing environment field. Click OK



d. The environment should appear on the IDE like below -



e. Wait for Updating Skeletons, Indexing.

Saturday, April 20, 2024 12:54 PM

- ```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 10.0.19044.4170]
(c) Microsoft Corporation. All rights reserved.

C:\Users\meggulat>allure --version
2.28.0

C:\Users\meggulat>cd Documents

C:\Users\meggulat\Documents>cd Consumer Debt Analysis

C:\Users\meggulat\Documents\Consumer Debt Analysis>conda activate proj_env

C:\Users\meggulat\Documents\Consumer Debt Analysis>SET CMDSTAN_OLD=C:\Users\meggulat\AppData\Local\anaconda3\envs\proj_env\Library\bin\cmdstan\

C:\Users\meggulat\Documents\Consumer Debt Analysis>SET CMDSTAN=C:\Users\meggulat\AppData\Local\anaconda3\envs\proj_env\Library\bin\cmdstan\

(proj_env) C:\Users\meggulat\Documents\Consumer Debt Analysis>
```

- a. It will start running, some results in CMD -> ignore the duplicate error.

b. Multiple browser windows will start opening up which are the result to all the scenarios running at once.

- 4) To view a consolidated run report. Type in command: allure serve test\_reports

```
C:\WINDOWS\system32\cmd.exe - allure serve reports

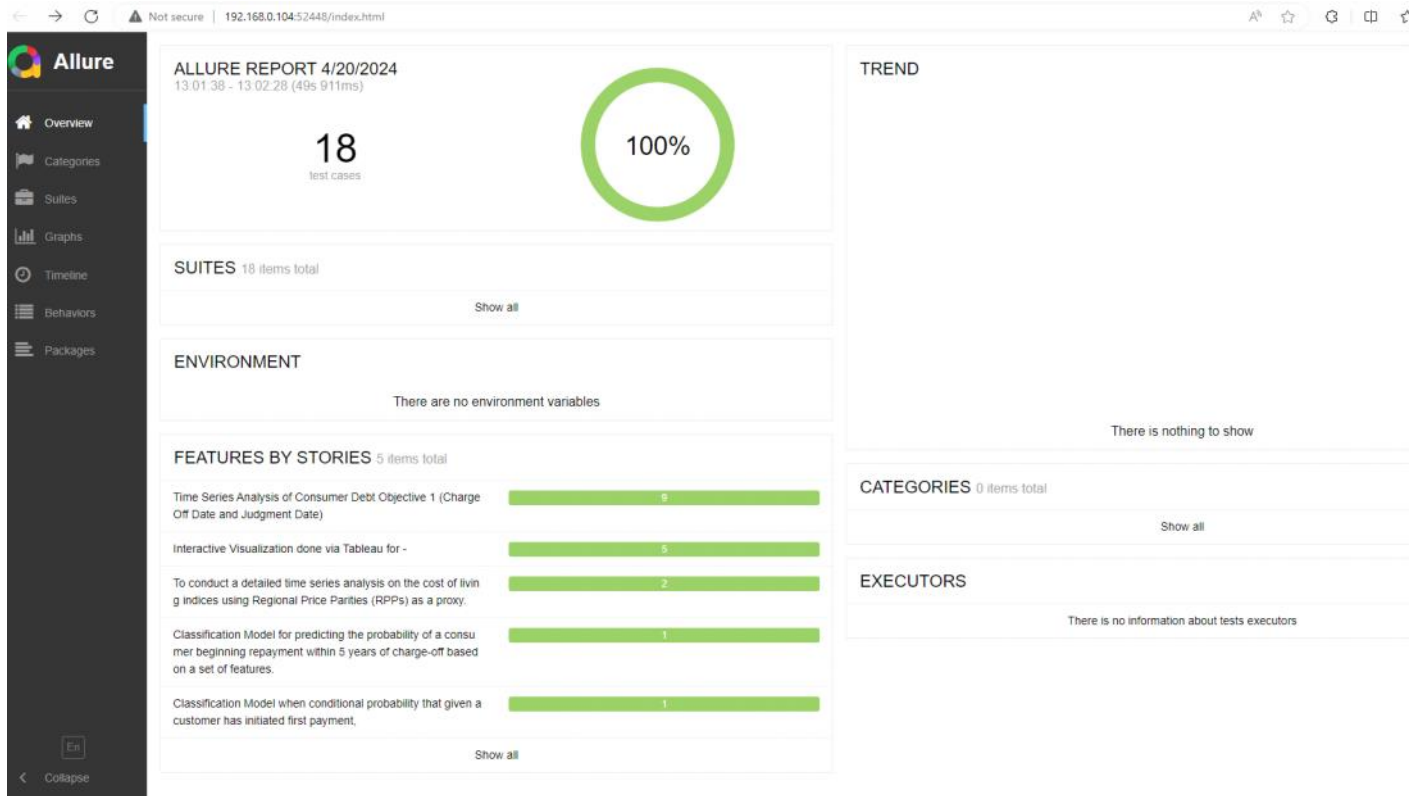
At iterate 15 f= 5.487880+00 |proj g|= 7.19543D-02
* * *
Tit = total number of iterations
Tnf = total number of function evaluations
Tnint = total number of segments explored during Cauchy searches
Skip = number of BFGS updates skipped
Nact = number of active bounds at final generalized Cauchy point
Projg = norm of the final projected gradient
F = final function value
* * *

N Tit Tnf Tnint Skip Nact Projg F
3 18 22 1 0 0 8.350D-06 5.487D+00
F = 5.48740425579576

CONVERGENCE: NORM OF PROJECTED GRADIENT <= PGTOL
5 features passed, 0 failed, 0 skipped
18 scenarios passed, 0 failed, 0 skipped
31 steps passed, 0 failed, 0 skipped, 0 undefined
Took 0m49.451s
Exception ignored in: <function _Win32Helper.__del__ at 0x000002A4A07F2310>
Traceback (most recent call last):
 File "C:\Users\meggulat\AppData\Local\anaconda3\envs\proj_env\lib\site-packages\azureml\automl\runtime\shared\win32_helper.py", line 246, in __del__
TypeError: catching classes that do not inherit from BaseException is not allowed

(proj_env) C:\Users\meggulat\Documents\Consumer Debt Analysis>allure serve reports
generating report to temp directory...
report successfully generated to C:\Users\meggulat\AppData\Local\Temp\15772714256826178959\allure-report
starting web server...
2024-04-20 13:05:48.820:INFO:main: Logging initialized @6789ms to org.eclipse.jetty.util.log.StdErrLog
Server started at <http://192.168.0.104:52448/>. Press <Ctrl+C> to exit
```

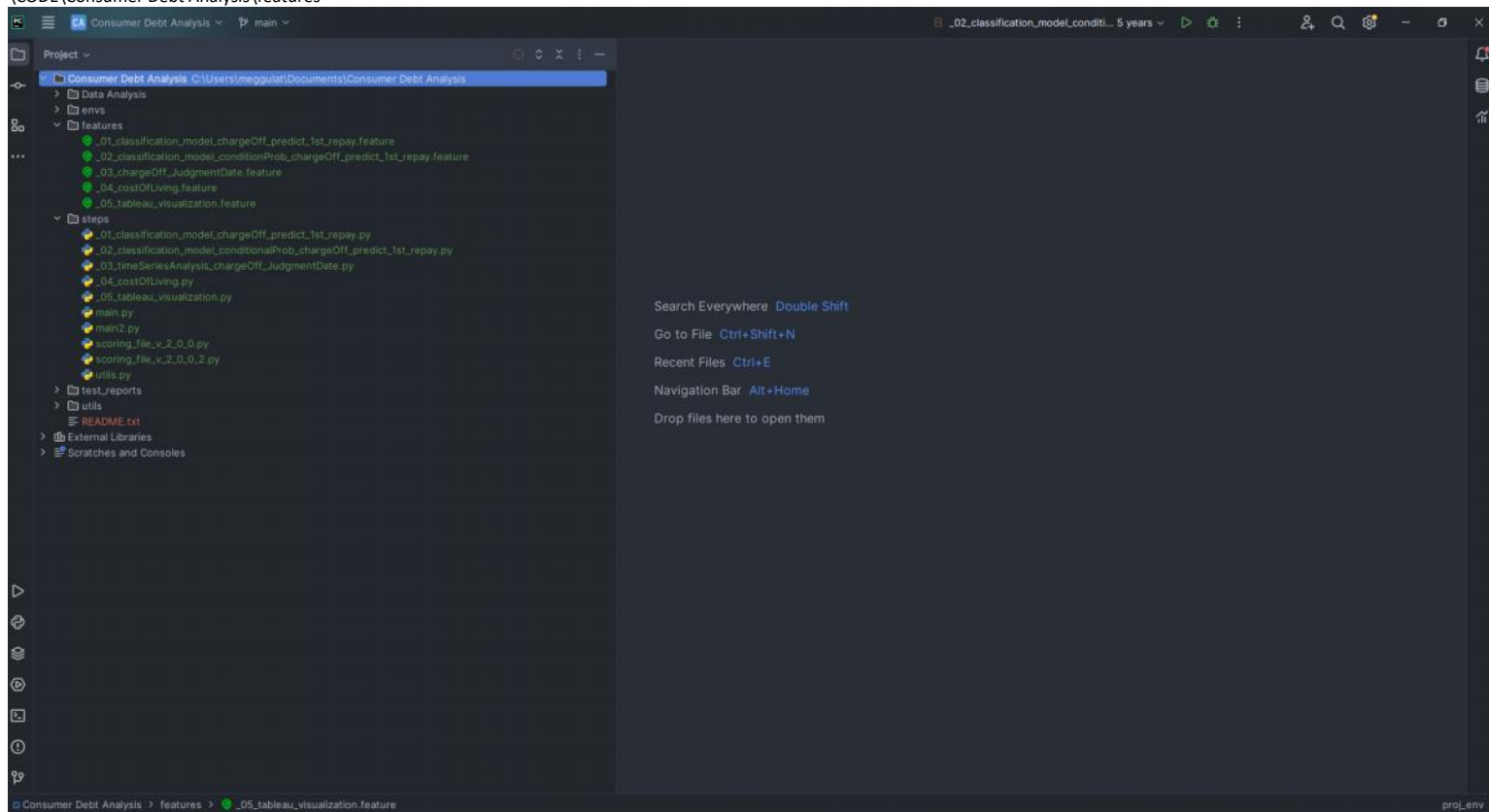
5) An Interactive Report generated and opened in the Web Browser like below -



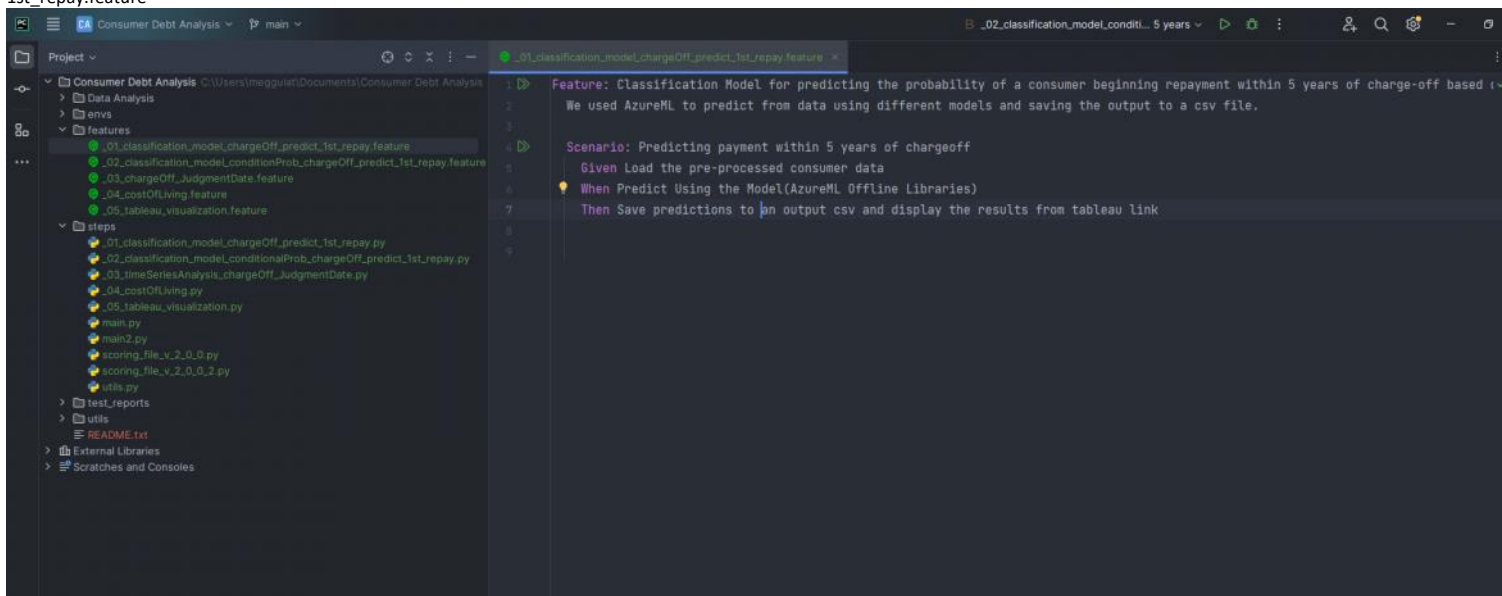
## Execution | Method 2: PyCharm

Saturday, April 20, 2024 1:09 PM

The code will be run in the feature files present in features folder in path C:\Users\meggulat\Documents\team084final\CODE\Consumer Debt Analysis\features

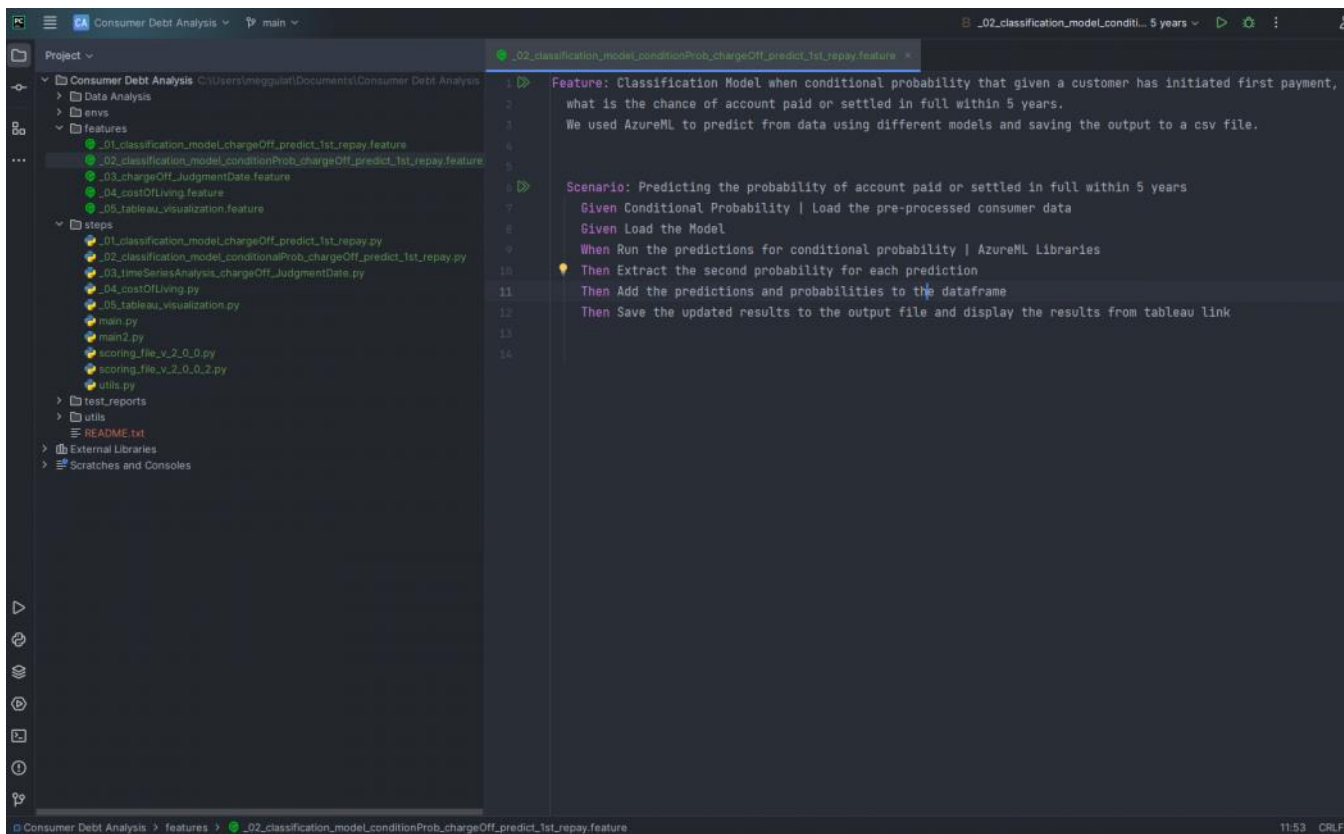


### 1) Run \_01\_classification\_model\_chargeOff\_predict\_1st\_repay.feature



Possible Env/Intermittent error(from AzureML Library) :  
Fix: schema\_decorators.py -> edit mode -> if  
OUTPUT\_SCHEMA\_ATTR in  
\_\_functions\_schema\_\_[base\_func\_name].keys():  
    print('Error, output schema already defined for  
function: {}'.format(base\_func\_name))

### 2) Run \_02\_classification\_model\_conditionProb\_chargeOff\_predict\_1st\_repay.feature



Possible Env/Intermittent error(from AzureML Library) :

Fix: schema\_decorators.py -> edit mode -> if

OUTPUT\_SCHEMA\_ATTR in

\_\_functions\_schema\_\_[base\_func\_name].keys():

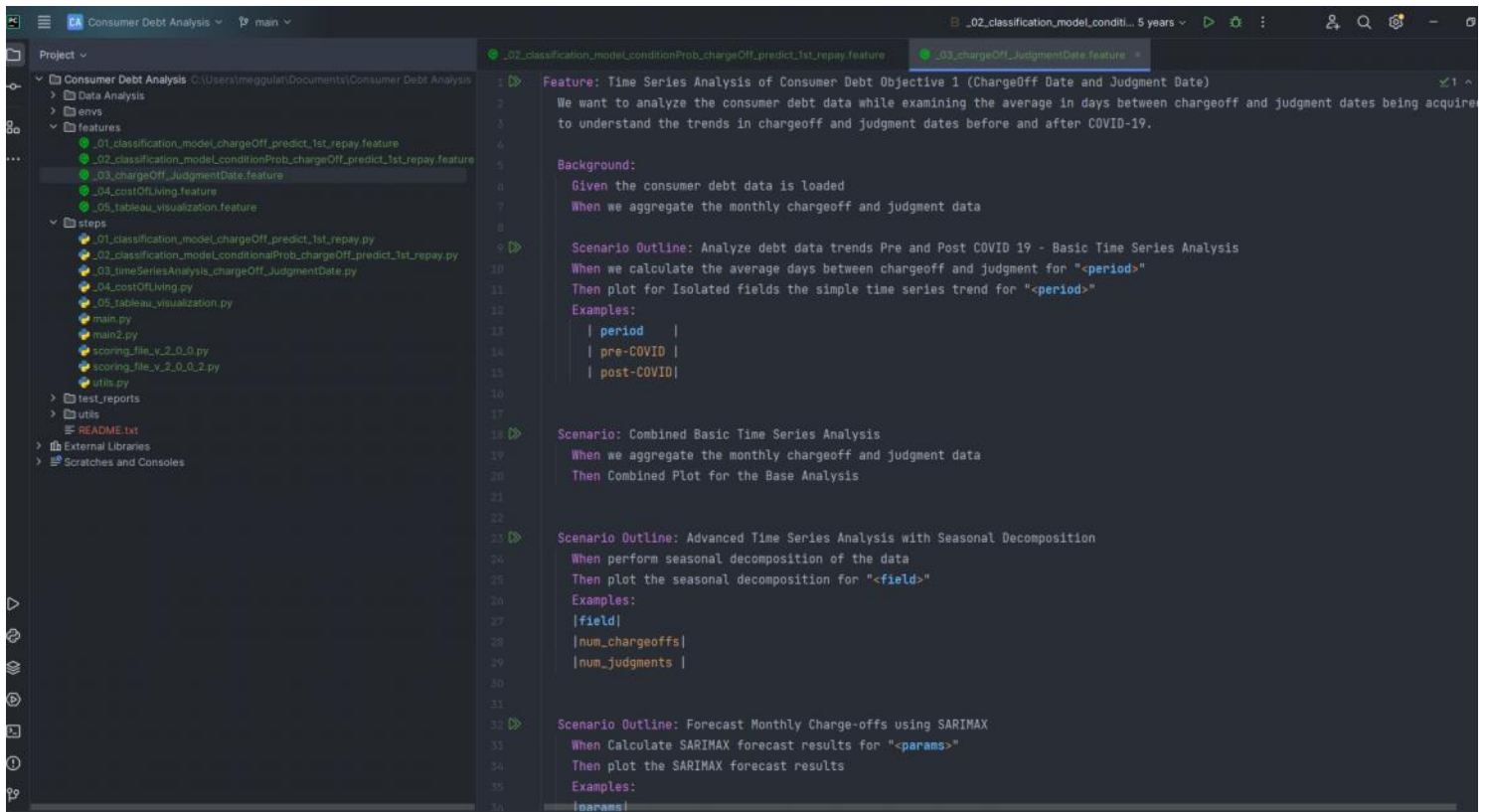
print('Error, output schema already defined for

function: {}'.format(base\_func\_name))

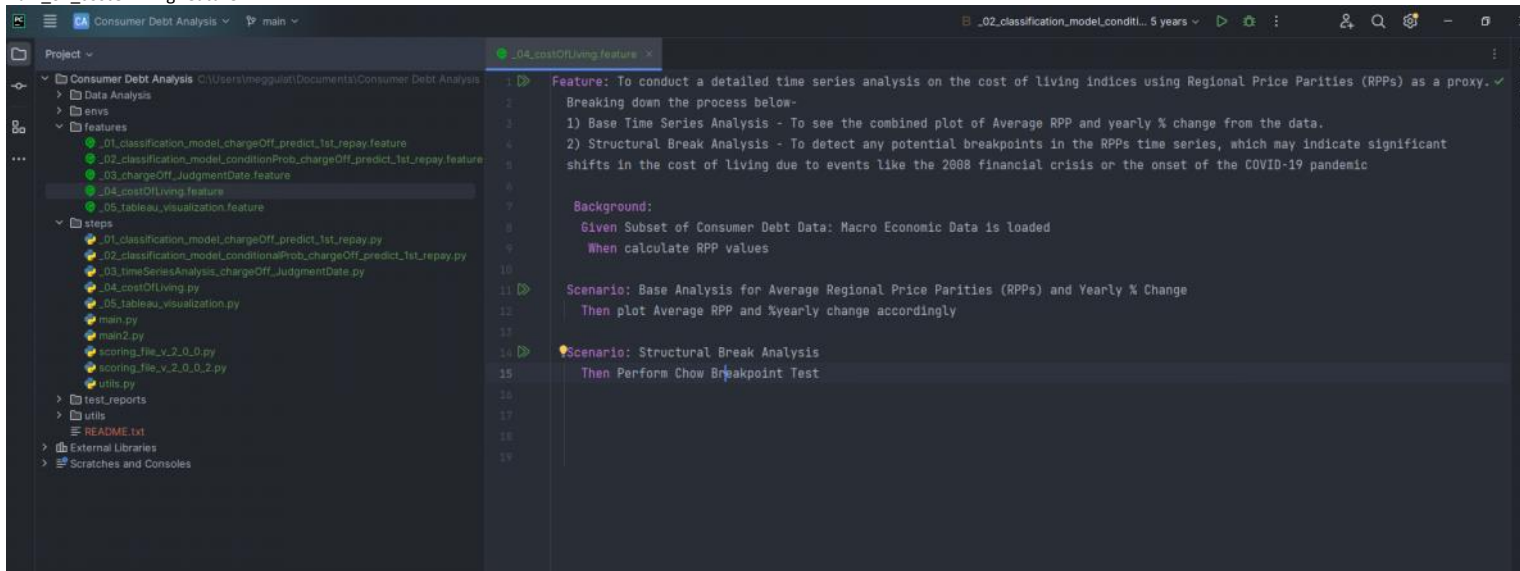
RUN EACH SCENARIO ONE BY ONE FOR BETTER CLARITY IN  
BELOW -

3) Run \_03\_chargeOff\_JudgmentDate.feature





#### 4) Run \_04\_costOfLiving.feature



#### 5) Run \_05\_tableau\_visualization.feature

