

Ready to test whether my main.py, DataClasses.py, IOClasses.py, and ProcessClass.py work?

Module09 - Modules > Main.py

Project > Module09 - Modules C:\Users\tpeng\Pycharm

- Mod9PythonProgrammingNotes.docx
- Assignment09.docx
- DataClasses.py
- EmployeeData.txt
- Images.pptx
- IOClasses.py
- Main.py
- PersonData.txt
- ProcessingClasses.py
- Screen_capture.pptx
- TestHarness.py
- ~\$Screen_capture.pptx
- ~\$signment09.docx

External Libraries

- Scratches and Consoles

```
1 # Title: Main script to complete "Assignment 09"
2 # Description: Working with Modules
3 # ChangeLog (Who,When,What):
4 # RRoot,1.1.2030,Created started script
5 # RRoot,1.1.2030,Added pseudo-code to start assignment 9
6 # <Tao Peng>,<06.04.2021>,Modified code to complete assignment 9
7
8 # TODO: Import Modules
9 if __name__ == "__main__":
10     from DataClasses import Employee as Emp
11     from ProcessingClasses import FileProcessor as Fp
12     from IOClasses import EmployeeIO as Eio
13
14 else:
15     raise Exception("This file was not created to be imported")
16 # Main Body of Script ----- #
17 # TODO: Add Data Code to the Main body
18 # Load data from file into a list of employee objects when script starts
19 # Show user a menu of options
20 # Get user's menu option choice
21 # Show user current data in the list of employee objects
22 # Let user add data to the list of employee objects
23 # let user save current data to file
24 # Let user exit program
```

20:32 CRLF UTF-8 4 spaces Python 3.9

Read the Employee.txt data into the script and print the data to screen

The screenshot shows the PyCharm IDE interface. The main editor window displays the `Main.py` file, which contains the following Python code:

```
25 lstTable = []
26 FileName = 'EmployeeData.txt'
27 lstFileData = Fp.read_data_from_file("EmployeeData.txt")
28 lstTable.clear()
29 for line in lstFileData:
30     lstTable.append(Emp(line[0], line[1], line[2].strip()))
31 for row in lstTable:
32     print(row.to_string(), type(row))
33 while (True):
34     Eio.print_current_list_items(lstTable) # Show current data in the list/table
35     Eio.print_menu_items() # Shows menu
36     strChoice = Eio.input_menu_options() # Get menu option
37     # Process user's menu choice
```

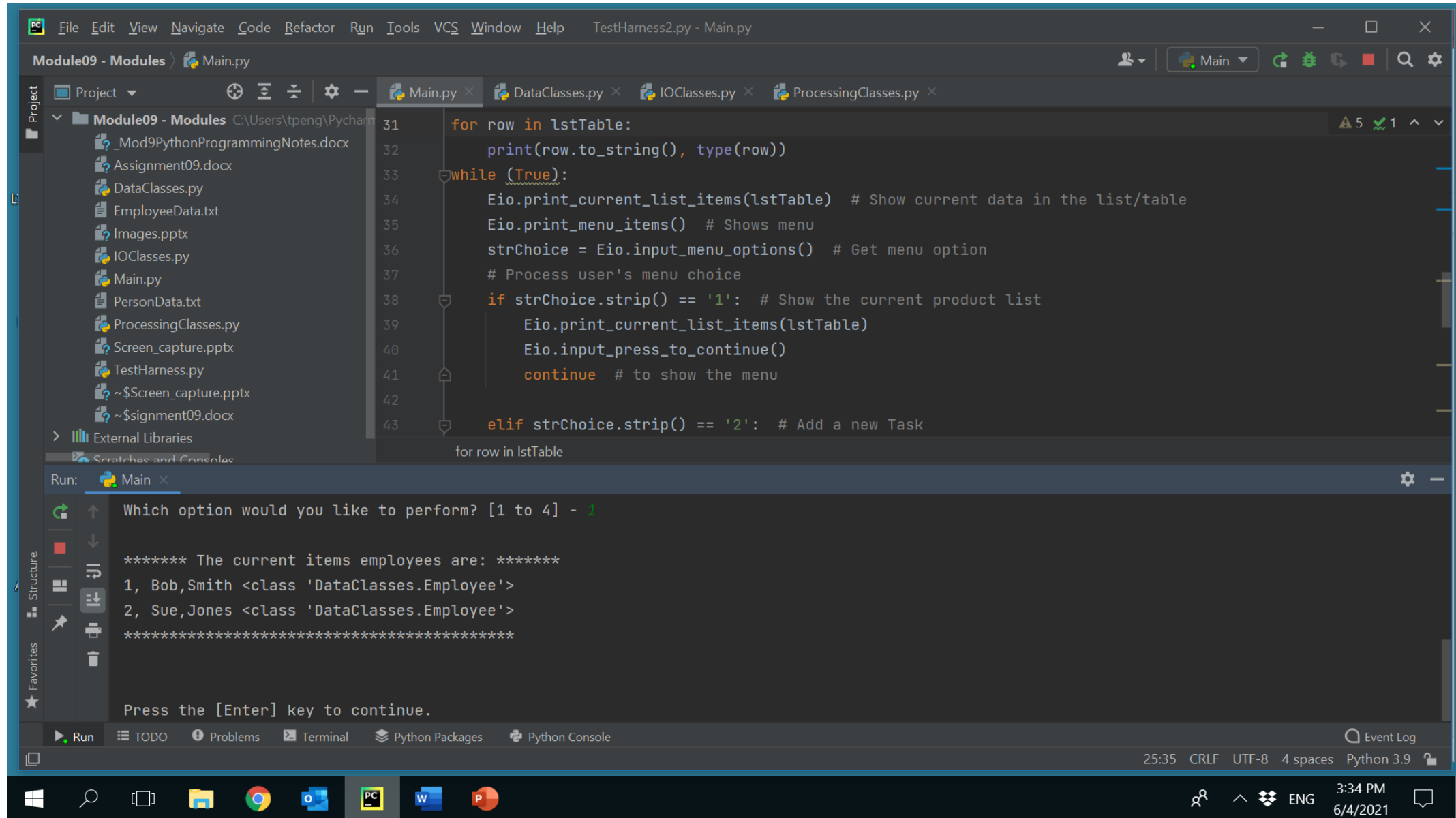
The left sidebar shows the project structure for `Module09 - Modules`, including files like `EmployeeData.txt`, `DataClasses.py`, `IOClasses.py`, and `ProcessingClasses.py`.

The bottom panel shows the Run output for `Main.py`, displaying the command executed and the output of the script:

```
C:\Users\tpeng\Python39\python.exe "C:/Users/tpeng/PycharmProjects/FDN_class2021/Module09 - Modules/Main.py"
1, Bob,Smith <class 'DataClasses.Employee'>
2, Sue,Jones <class 'DataClasses.Employee'>
***** The current items employees are: *****
1, Bob,Smith <class 'DataClasses.Employee'>
2, Sue,Jones <class 'DataClasses.Employee'>
*****
```

The status bar at the bottom indicates the current file is `Main.py`, the encoding is `UTF-8`, and the Python version is `Python 3.9`.

If the user (ME) choose 1: Print out the current Employee data to screen!



The screenshot displays the PyCharm IDE interface. The top toolbar includes menus for File, Edit, View, Navigate, Code, Refactor, Run, Tools, VCS, Window, and Help. The main editor window shows the file `Main.py` with the following Python code:

```
31 for row in lstTable:
32     print(row.to_string(), type(row))
33 while (True):
34     Eio.print_current_list_items(lstTable) # Show current data in the list/table
35     Eio.print_menu_items() # Shows menu
36     strChoice = Eio.input_menu_options() # Get menu option
37     # Process user's menu choice
38     if strChoice.strip() == '1': # Show the current product list
39         Eio.print_current_list_items(lstTable)
40         Eio.input_press_to_continue()
41         continue # to show the menu
42
43     elif strChoice.strip() == '2': # Add a new Task
```

The left sidebar shows the project structure for `Module09 - Modules`, listing files such as `_Mod9PythonProgrammingNotes.docx`, `Assignment09.docx`, `DataClasses.py`, `EmployeeData.txt`, `Images.pptx`, `IOClasses.py`, `Main.py`, `PersonData.txt`, `ProcessingClasses.py`, `Screen_capture.pptx`, `TestHarness.py`, and `~$Screen_capture.pptx`.

The bottom panel, titled `Run: Main`, shows the execution output:

```
Which option would you like to perform? [1 to 4] - 1

***** The current items employees are: *****
1, Bob,Smith <class 'DataClasses.Employee'>
2, Sue,Jones <class 'DataClasses.Employee'>
*****

Press the [Enter] key to continue.
```

The status bar at the bottom indicates the current time is 3:35, the encoding is CRLF, the file encoding is UTF-8, the indentation is 4 spaces, and the Python version is 3.9. The system tray shows the date and time as 3:34 PM on 6/4/2021.

If the user choose 2: A new employee “3, Meme, Peacock” is added!
The new data is NOT saved yet, so the Employee.txt still has Bob and Sue!

The screenshot shows the PyCharm IDE with the following components:

- Project View:** Shows the project structure with files like `_Mod9PythonProgrammingNotes.docx`, `Assignment09.docx`, and `DataClasses.py`.
- Code Editor:** Displays the `Main.py` file with the following code:

```
31 for row in lstTable:
32     print(row.to_string(), type(row))
    for row in lstTable
```
- Run Console:** Shows the execution output:

```
Which option would you like to perform? [1 to 4] - 2
What is the employee Id? - 3
What is the employee First Name? - Meme
What is the employee Last Name? - Peacock

Press the [Enter] key to continue.
***** The current items employees are: *****
1, Bob,Smith <class 'DataClasses.Employee'>
2, Sue,Jones <class 'DataClasses.Employee'>
3,Meme,Peacock <class 'DataClasses.Employee'>
*****

Menu of Options
1) Show current employee data
2) Add new employee data.
3) Save employee data to File
4) Exit program
```
- EmployeeData - Notepad:** A separate window showing the current state of the `EmployeeData.txt` file:

```
File Edit Format View Help
1, Bob,Smith
2, Sue,Jones
```

The status bar at the bottom indicates the file encoding is UTF-8, 4 spaces indentation, and Python 3.9 is being used.

If the user choose 3 and y to save: A new employee “3, Meme, Peacock” is saved to employee.txt file

The screenshot displays the PyCharm IDE interface. The main editor window shows the `Main.py` file with the following code:

```
49 elif strChoice == '3': # Save Data to File
50     YorN = Eio.input_yes_no_choice("Save this data to file? (y/n) - ")
51     if YorN.lower() == "y":
52         status = Fp.save_data_to_file(FileName, lstTable)
53         print(status)
54         Eio.input_press_to_continue()
55     else:
56         Eio.input_press_to_continue("Save Cancelled!")
57     continue # to show the menu
```

The Run window shows the program's output:

```
Menu of Options
1) Show current employee data
2) Add new employee data.
3) Save employee data to File
4) Exit program

Which option would you like to perform? [1 to 4] - 3

Save this data to file? (y/n) - y

Saved
```

A Notepad window titled "EmployeeData - Notepad" is open, displaying the saved data:

```
File Edit Format View Help
1, Bob,Smith
2, Sue,Jones
3,Meme,Peacock
```

The bottom status bar indicates the current settings: 66:35 CRLF UTF-8 4 spaces Python 3.9.