

Melissa Favelli
CSD325
Advanced Python
Module 2 Assignment: Debugging
12/14/2025

Initial Debugging with Breakpoint

The screenshot shows the Visual Studio Code interface during a Python debugging session. The code editor displays a script named `module_5.py` with a breakpoint set at line 7. The terminal window shows the command used to start the debugger. The call stack indicates the current state of the application.

```
home > melissa > Downloads > module_5.py > main
1 # Melissa Favelli
2 # CSD205 Intro to Programming with Python
3 # July 6, 2025
4 # Module 5 Assignment
5
6
7 def main():
8     # prompt for file name
9     file_name_input = input("Enter a name for your file: ")
10    file_name = file_name_input + "_data.txt"
11
12    # prompt for name, address & phone number
13    name = input("Enter your name: ")
14    street_address = input("Enter your address: ")
15    phone_number = input("Enter your phone number: ")
16
17    # write the data to the file
18    with open(file_name, "w") as file:
19        file.write(name + "," + street_address + "," + phone_number + "\n")
20
21    # read and display file contents
22    print("\nThe file contents are as follows:")
23    with open(file_name, "r") as file:
24        for line in file:
25            print(line.strip())
26
27 main()
```

CALL STACK

- Debug module_5.py RUNNING
- Debug module... PAUSED ON BREAKPOINT
- <module> module_5.py 7:0

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

melissa@geekon:~/Downloads

```
melissa@geekon:~/Downloads$ ./usr/bin/env /bin/python3 /home/melissa/.vscode/extensions/ms-python.debugpy-2025.16.0/bundled/libs/debugpy/adapters/.../debugpy/launcher 51081 -- /home/melissa/Downloads/module_5.py
```

BREAKPOINTS

- Raised Exceptions
- Uncaught Exceptions
- User Uncaught Exceptions
- module_5.py ~/Downloads

Debugging after Stepping into Function

The screenshot shows the VS Code interface with the Python extension open. A breakpoint is set at line 7 of the file `module_5.py`. The code is as follows:

```
1 # Melissa Favelli
2 # C50205 Intro to Programming with Python
3 # July 6, 2025
4 # Module 5 Assignment
5
6
7 def main():
8     # prompt for file name
9     file_name_input = input("Enter a name for your file: ")
10    file_name = file_name_input + ".data.txt"
11
12    # prompt for name, address & phone number
13    name = input("Enter your name: ")
14    street_address = input("Enter your address: ")
15    phone_number = input("Enter your phone number: ")
16
17    # write the data to the file
18    with open(file_name, "w") as file:
19        file.write(name + "," + street_address + "," + phone_number + "\n")
20
21    # read and display file contents
22    print("\nThe file contents are as follows:")
23    with open(file_name, "r") as file:
24        for line in file:
25            print(line.strip())
26
27 main()
```

The **CALL STACK** panel shows three entries: `Debug module_5.py`, `Debug module_5.py 2`, and `Debug module_5.py 3`. The third entry is highlighted and labeled **PAUSED ON STEP**. The **BREAKPOINTS** panel shows two checked options: `Uncought Exceptions` and `module_5.py`.

The **TERMINAL** tab shows the command line output:

```
melissa@geekom:~/Downloads
$ /usr/bin/env /bin/python3 /home/melissa/.vscode/extensions/ms-python.debugpy-2025.16.0/bundled/libs/debugpy/adapter/../debugpy/launcher 45099 -- /home/melissa/Downloads/module_5.py
```

Debugging after adding error (changed “w” (write) to “q”)

The screenshot shows a VS Code interface with a Python file named `module_5.py` open in the editor. The code is intended to prompt the user for a file name, address, and phone number, then write this information to a file named `name_data.txt`. However, there is a syntax error at line 18 where the mode argument for the `open` function is set to "q" instead of "w".

```
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2 # CSD205 Intro to Programming with Python
3 # July 6, 2025
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6
7 def main():
8     # prompt for file name
9     file_name_input = input("Enter a name for your file: ")
10    file_name = file_name_input + "_data.txt"
11
12    # prompt for name, address & phone number
13    name = input("Enter your name: ")
14    street_address = input("Enter your address: ")
15    phone_number = input("Enter your phone number: ")
16
17    # write the data to the file
18    with open(file_name, "q") as file:
19        file.write(name + "," + street_address + "," + phone_number + "\n")
20
21    # read and display file contents
22    print("\nThe file contents are as follows:")
23    with open(file_name, "r") as file:
24        for line in file:
25            print(line.strip())
26
27 main()
```

The terminal window shows the user's input and the program's response. The user enters their name, address, and phone number, but the file is not created because the mode "q" is invalid for writing.

```
melissa@geekom:~/Downloads
$ /usr/bin/env /bin/python3 /home/melissa/.vscode/extensions/ms-python.debugpy-2025.16.0/bundled/libs/debugpy/adapter/../../debugpy/launcher 51443 -- /home/melissa/Downloads/module_5.py
Enter a name for your file: file
Enter your name: Melissa
Enter your address: 916 clarence ct
Enter your phone number: 6084059844
[]
```