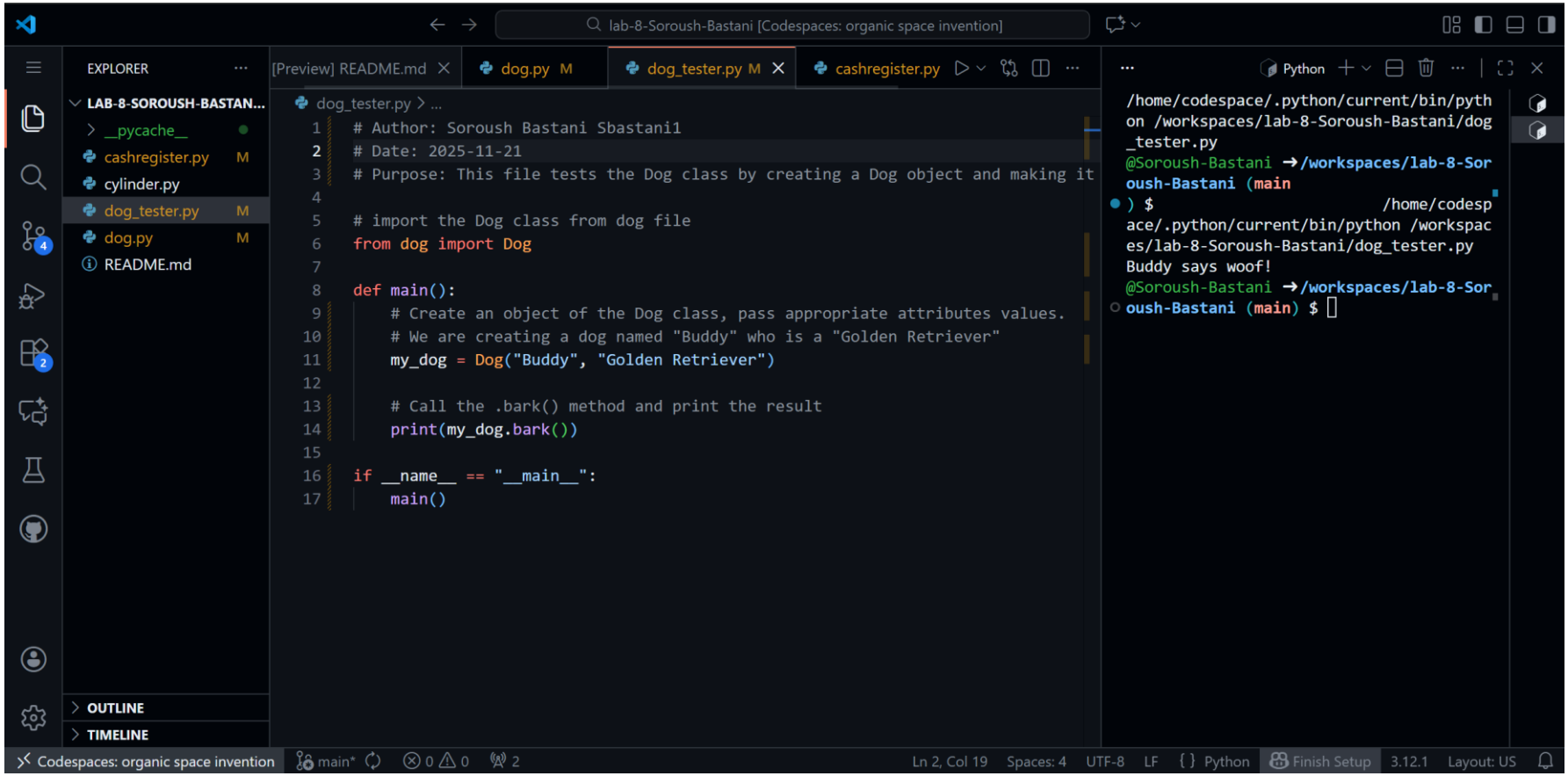
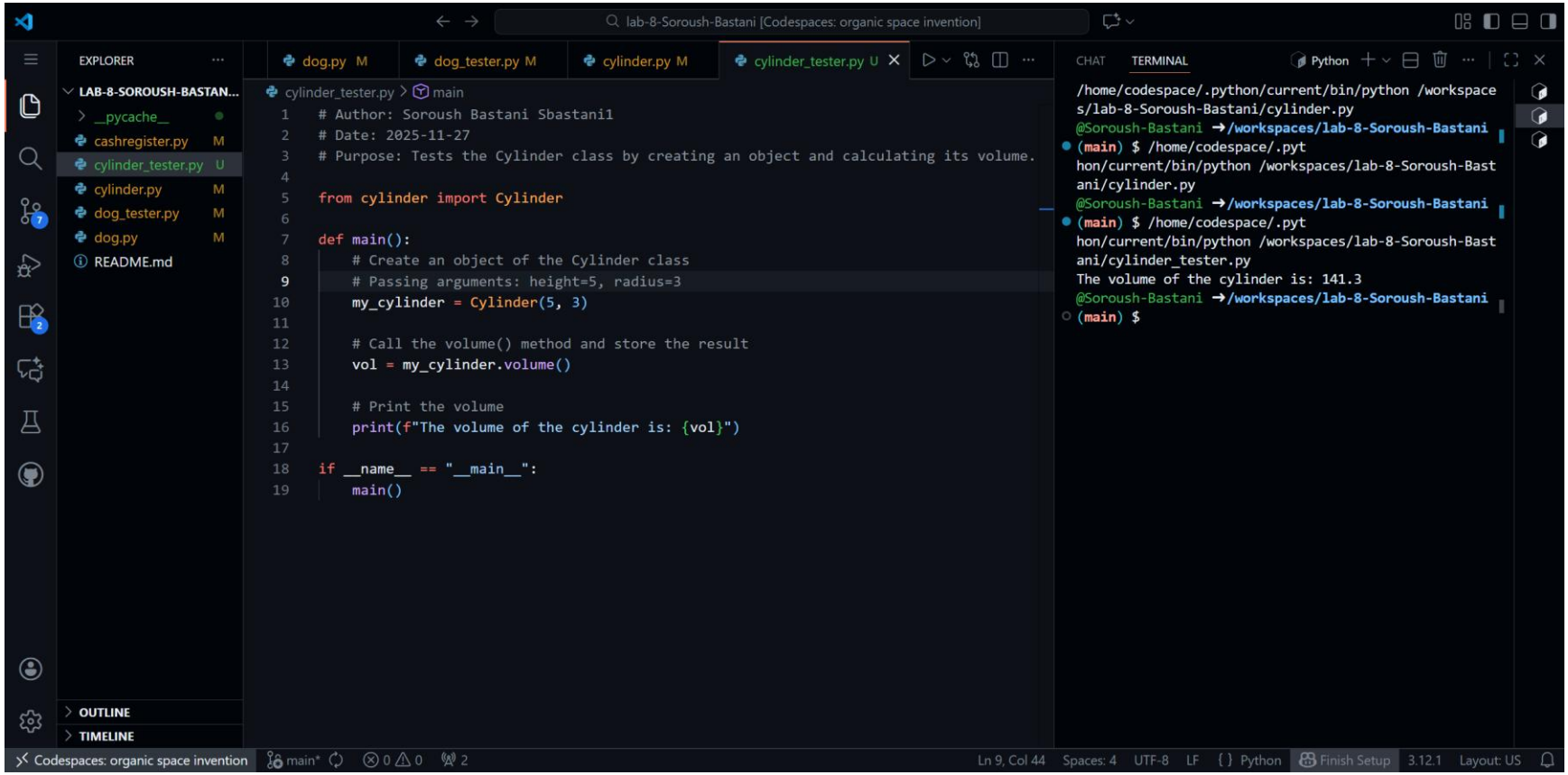
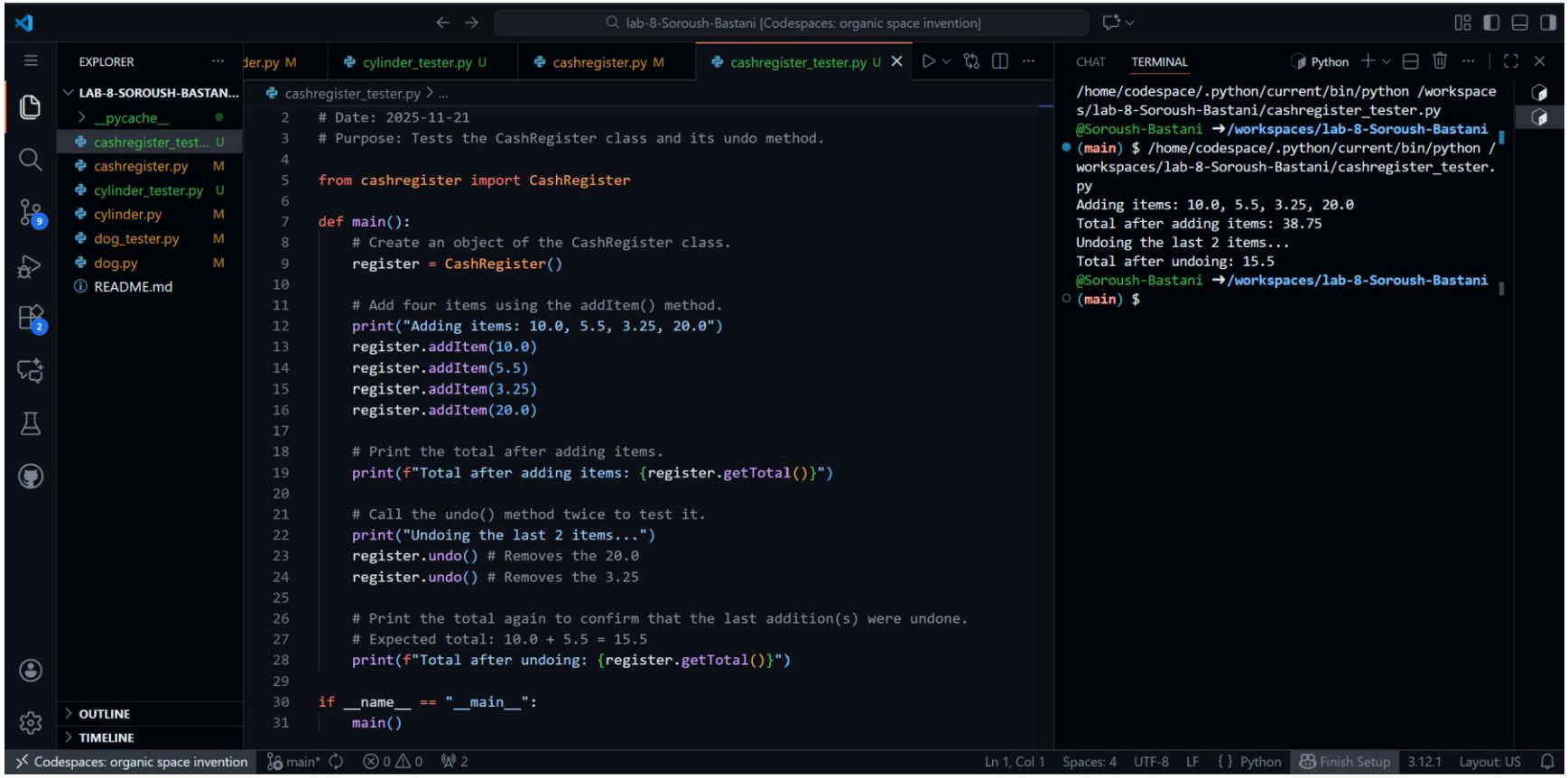
Lab 8a


lab-8-Soroush-Bastani [Codespaces: organic space invention]
EXPLORER
LAB-8-SOROUSH-BASTAN...
__pycache__
cashregister.py M
cylinder.py
dog_tester.py M
dog.py M
README.md
[Preview] README.md
dog.py M
dog_tester.py M
cashregister.py
dog_tester.py > ...
1 # Author: Soroush Bastani Sbastani1
2 # Date: 2025-11-21
3 # Purpose: This file tests the Dog class by creating a Dog object and making it
4
5 # import the Dog class from dog file
6 from dog import Dog
7
8 def main():
9 # Create an object of the Dog class, pass appropriate attributes values.
10 # We are creating a dog named "Buddy" who is a "Golden Retriever"
11 my_dog = Dog("Buddy", "Golden Retriever")
12
13 # Call the .bark() method and print the result
14 print(my_dog.bark())
15
16 if __name__ == "__main__":
17 main()
OUTLINE
TIMELINE
Python
/home/codespace/.python/current/bin/python /workspaces/lab-8-Soroush-Bastani/dog_tester.py
@Soroush-Bastani →/workspaces/lab-8-Soroush-Bastani (main) $ /home/codespace/.python/current/bin/python /workspaces/lab-8-Soroush-Bastani/dog_tester.py
Buddy says woof!
@Soroush-Bastani →/workspaces/lab-8-Soroush-Bastani (main) $
Codespaces: organic space invention
main*
Ln 2, Col 19
Spaces: 4
UTF-8
LF
Python
Finish Setup
3.12.1
Layout: US

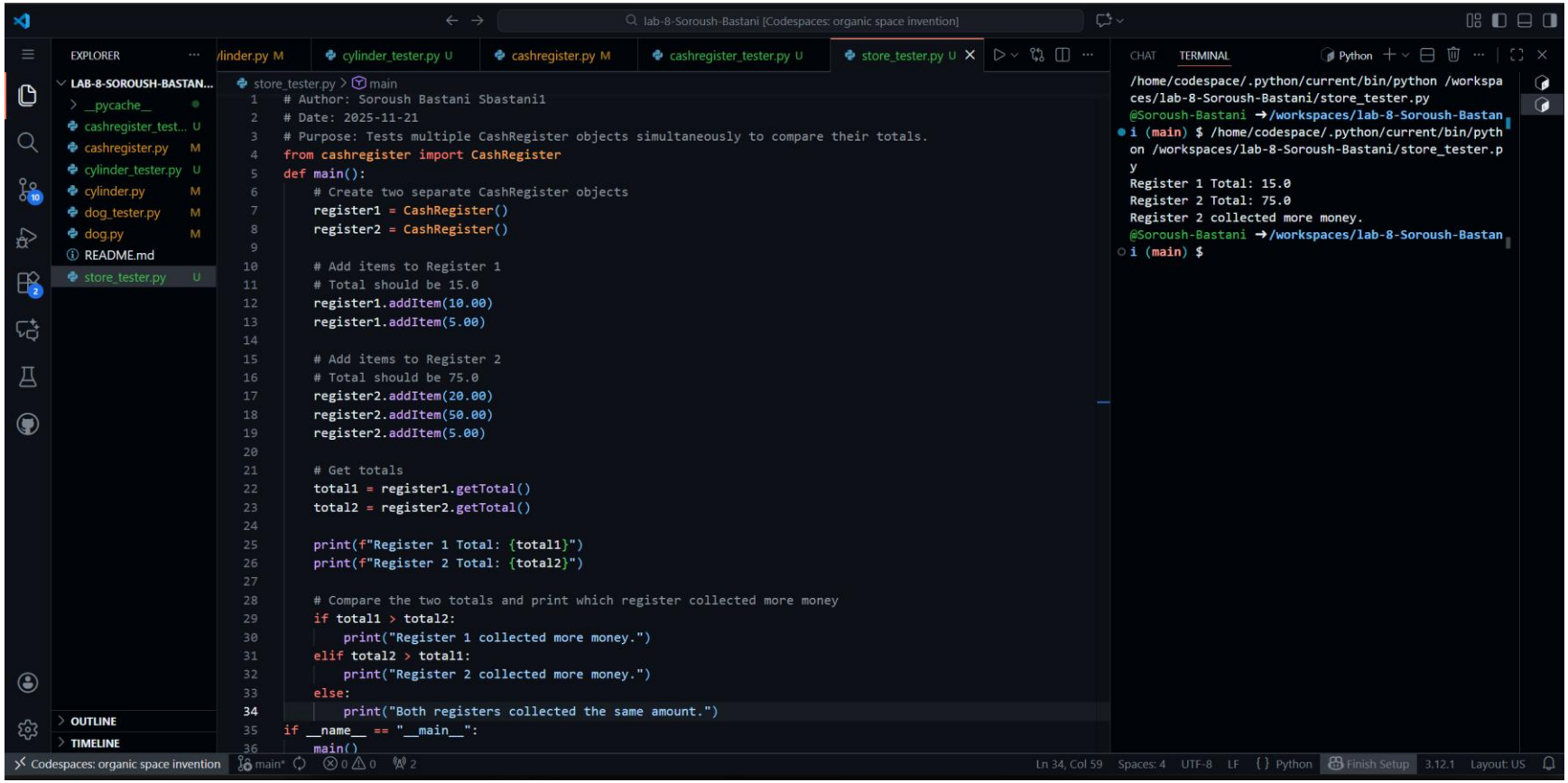
Lab 8b


lab-8-Soroush-Bastani [Codespaces: organic space invention]
EXPLORER
LAB-8-SOROUSH-BASTAN...
__pycache__
cashregister.py M
cylinder_tester.py U
cylinder.py M
dog_tester.py M
dog.py M
README.md
OUTLINE
TIMELINE
dog.py M
dog_tester.py M
cylinder.py M
cylinder_tester.py U
cylinder_tester.py > main
1 # Author: Soroush Bastani Sbastani1
2 # Date: 2025-11-27
3 # Purpose: Tests the Cylinder class by creating an object and calculating its volume.
4
5 from cylinder import Cylinder
6
7 def main():
8 # Create an object of the Cylinder class
9 # Passing arguments: height=5, radius=3
10 my_cylinder = Cylinder(5, 3)
11
12 # Call the volume() method and store the result
13 vol = my_cylinder.volume()
14
15 # Print the volume
16 print(f"The volume of the cylinder is: {vol}")
17
18 if __name__ == "__main__":
19 main()
CHAT
TERMINAL
Python
/home/codespace/.python/current/bin/python /workspaces/lab-8-Soroush-Bastani/cylinder.py
@Soroush-Bastani ➜/workspaces/lab-8-Soroush-Bastani (main) $ /home/codespace/.python/current/bin/python /workspaces/lab-8-Soroush-Bastani/cylinder.py
@Soroush-Bastani ➜/workspaces/lab-8-Soroush-Bastani (main) $ /home/codespace/.python/current/bin/python /workspaces/lab-8-Soroush-Bastani/cylinder_tester.py
The volume of the cylinder is: 141.3
@Soroush-Bastani ➜/workspaces/lab-8-Soroush-Bastani (main) $
Codespaces: organic space invention
main*
Ln 9, Col 44
Spaces: 4
UTF-8
LF
Python
Finish Setup
3.12.1
Layout: US

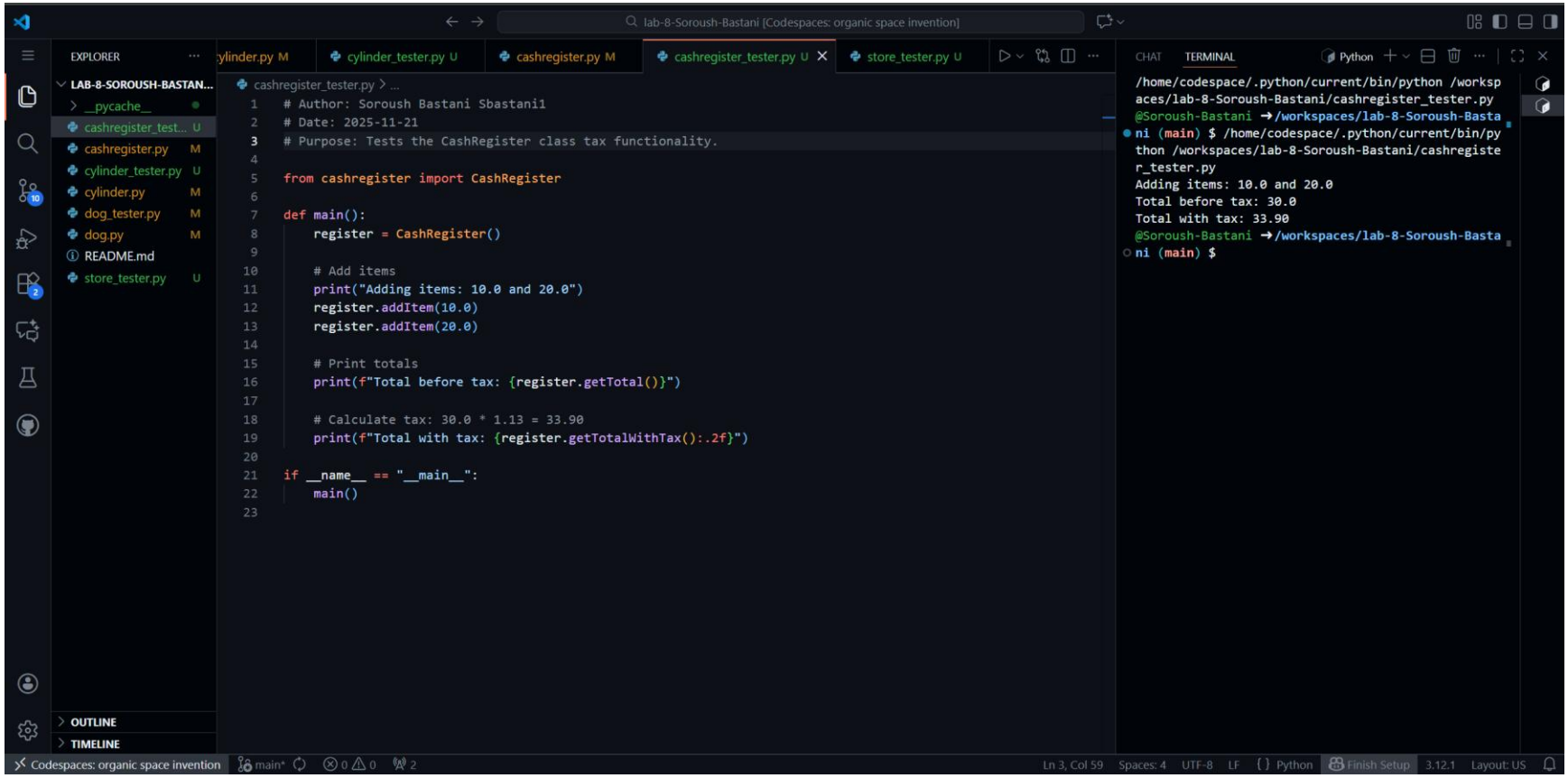
Lab 8c


lab-8-Soroush-Bastani [Codespaces: organic space invention]
EXPLORER
LAB-8-SOROUSH-BASTAN...
__pycache__
cashregister_test... U
cashregister.py M
cylinder_tester.py U
cylinder.py M
dog_tester.py M
dog.py M
README.md
OUTLINE
TIMELINE
cylinder_tester.py U
cashregister.py M
cashregister_tester.py U
cashregister_tester.py > ...
2 # Date: 2025-11-21
3 # Purpose: Tests the CashRegister class and its undo method.
4
5 from cashregister import CashRegister
6
7 def main():
8 # Create an object of the CashRegister class.
9 register = CashRegister()
10
11 # Add four items using the addItem() method.
12 print("Adding items: 10.0, 5.5, 3.25, 20.0")
13 register.addItem(10.0)
14 register.addItem(5.5)
15 register.addItem(3.25)
16 register.addItem(20.0)
17
18 # Print the total after adding items.
19 print(f"Total after adding items: {register.getTotal()}")
20
21 # Call the undo() method twice to test it.
22 print("Undoing the last 2 items...")
23 register.undo() # Removes the 20.0
24 register.undo() # Removes the 3.25
25
26 # Print the total again to confirm that the last addition(s) were undone.
27 # Expected total: 10.0 + 5.5 = 15.5
28 print(f"Total after undoing: {register.getTotal()}")
29
30 if __name__ == "__main__":
31 main()
CHAT
TERMINAL
Python
/home/codespace/.python/current/bin/python /workspaces/lab-8-Soroush-Bastani/cashregister_tester.py
@Soroush-Bastani →/workspaces/lab-8-Soroush-Bastani (main) $ /home/codespace/.python/current/bin/python /workspaces/lab-8-Soroush-Bastani/cashregister_tester.py
Adding items: 10.0, 5.5, 3.25, 20.0
Total after adding items: 38.75
Undoing the last 2 items...
Total after undoing: 15.5
@Soroush-Bastani →/workspaces/lab-8-Soroush-Bastani (main) $
Codespaces: organic space invention
main*
Ln 1, Col 1
Spaces: 4
UTF-8
LF
Python
Finish Setup
3.12.1
Layout: US

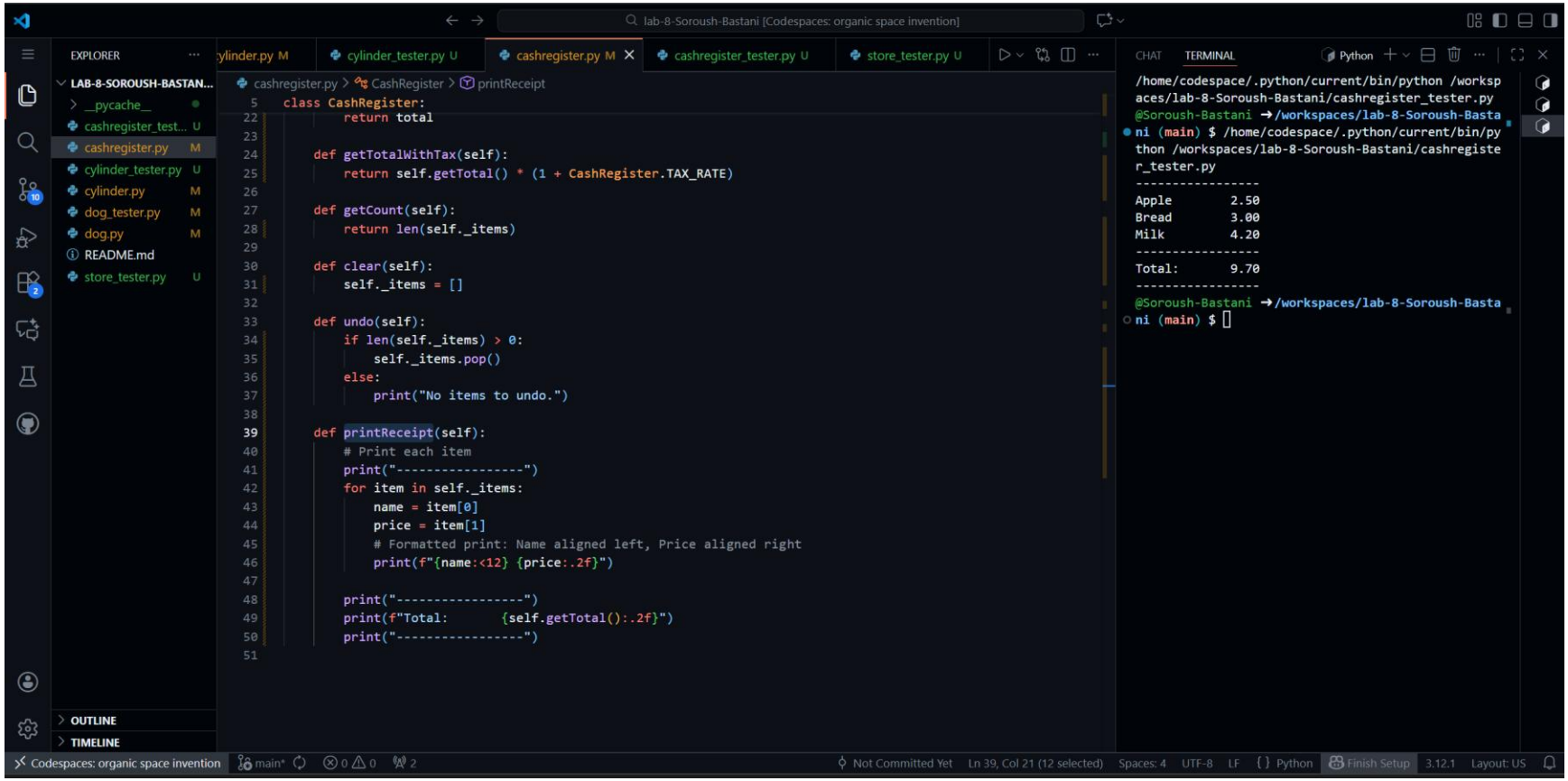
Lab 8d


lab-8-Soroush-Bastani [Codespaces: organic space invention]
EXPLORER
LAB-8-SOROUSH-BASTAN...
__pycache__
cashregister_test... U
cashregister.py M
cylinder_tester.py U
cylinder.py M
dog_tester.py M
dog.py M
README.md
store_tester.py U
OUTLINE
TIMELINE
cylinder.py M
cylinder_tester.py U
cashregister.py M
cashregister_tester.py U
store_tester.py U
store_tester.py > main
# Author: Soroush Bastani Sbastani1
# Date: 2025-11-21
# Purpose: Tests multiple CashRegister objects simultaneously to compare their totals.
from cashregister import CashRegister
def main():
# Create two separate CashRegister objects
register1 = CashRegister()
register2 = CashRegister()
# Add items to Register 1
# Total should be 15.0
register1.addItem(10.00)
register1.addItem(5.00)
# Add items to Register 2
# Total should be 75.0
register2.addItem(20.00)
register2.addItem(50.00)
register2.addItem(5.00)
# Get totals
total1 = register1.getTotal()
total2 = register2.getTotal()
print(f"Register 1 Total: {total1}")
print(f"Register 2 Total: {total2}")
# Compare the two totals and print which register collected more money
if total1 > total2:
print("Register 1 collected more money.")
elif total2 > total1:
print("Register 2 collected more money.")
else:
print("Both registers collected the same amount.")
if __name__ == "__main__":
main()
CHAT
TERMINAL
Python
/home/codespace/.python/current/bin/python /workspaces/lab-8-Soroush-Bastani/store_tester.py
@Soroush-Bastani ➜/workspaces/lab-8-Soroush-Bastan
i (main) $ /home/codespace/.python/current/bin/python /workspaces/lab-8-Soroush-Bastani/store_tester.py
Register 1 Total: 15.0
Register 2 Total: 75.0
Register 2 collected more money.
@Soroush-Bastani ➜/workspaces/lab-8-Soroush-Bastan
i (main) $
Codespaces: organic space invention
main*
Ln 34, Col 59
Spaces: 4
UTF-8
LF
Python
Finish Setup
3.12.1
Layout: US

Lab 8e

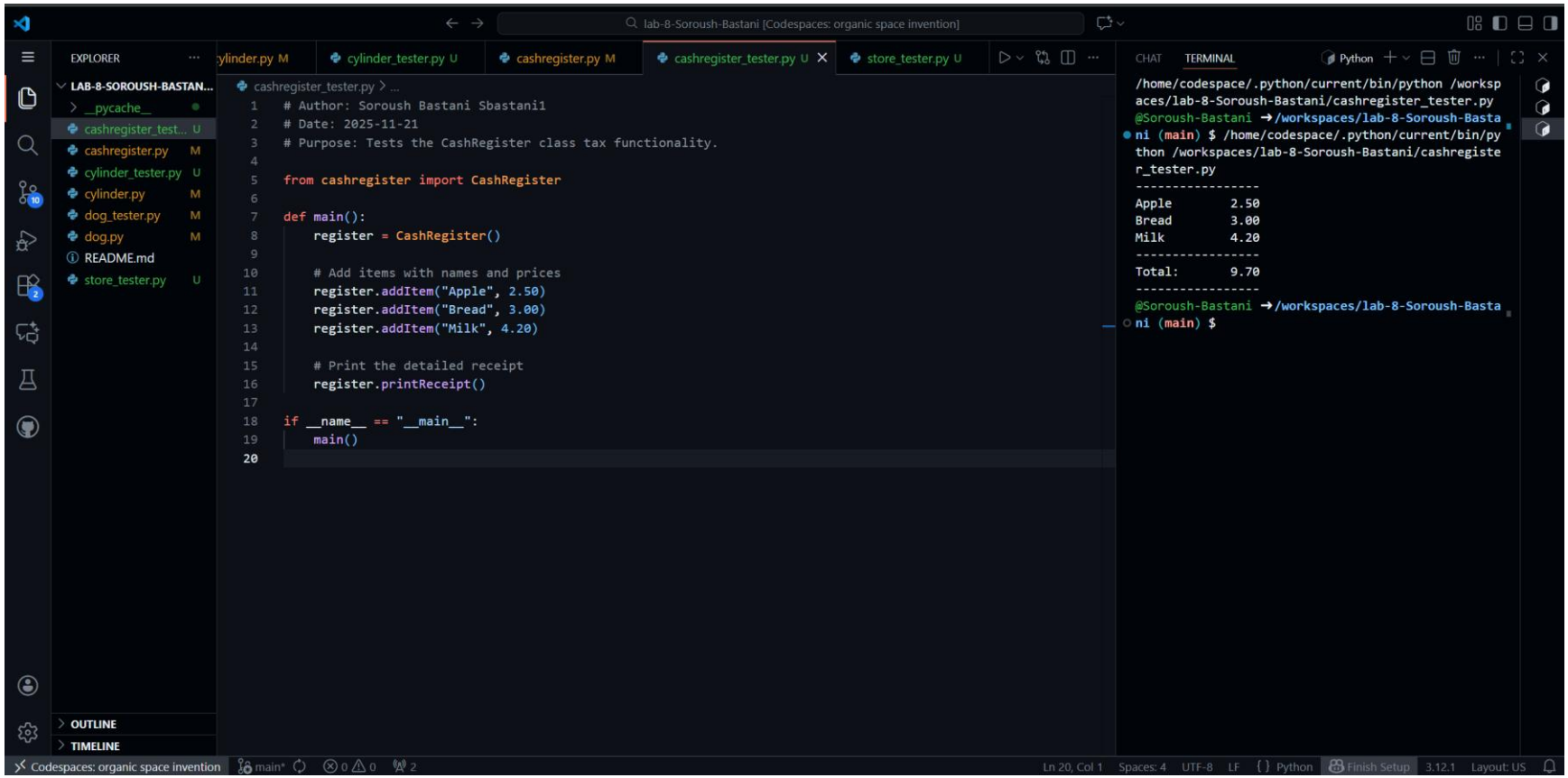

lab-8-Soroush-Bastani [Codespaces: organic space invention]
EXPLORER
LAB-8-SOROUSH-BASTAN...
__pycache__
cashregister_test... U
cashregister.py M
cylinder_tester.py U
cylinder.py M
dog_tester.py M
dog.py M
README.md
store_tester.py U
OUTLINE
TIMELINE
cylinder.py M
cylinder_tester.py U
cashregister.py M
cashregister_tester.py U
store_tester.py U
cashregister_tester.py > ...
1 # Author: Soroush Bastani Sbastani1
2 # Date: 2025-11-21
3 # Purpose: Tests the CashRegister class tax functionality.
4
5 from cashregister import CashRegister
6
7 def main():
8 register = CashRegister()
9
10 # Add items
11 print("Adding items: 10.0 and 20.0")
12 register.addItem(10.0)
13 register.addItem(20.0)
14
15 # Print totals
16 print(f"Total before tax: {register.getTotal()}")
17
18 # Calculate tax: 30.0 * 1.13 = 33.90
19 print(f"Total with tax: {register.getTotalWithTax():.2f}")
20
21 if __name__ == "__main__":
22 main()
23
CHAT
TERMINAL
Python
/home/codespace/.python/current/bin/python /workspaces/lab-8-Soroush-Bastani/cashregister_tester.py
@Soroush-Bastani ➜ /workspaces/lab-8-Soroush-Bastani (main) $ /home/codespace/.python/current/bin/python /workspaces/lab-8-Soroush-Bastani/cashregister_tester.py
Adding items: 10.0 and 20.0
Total before tax: 30.0
Total with tax: 33.90
@Soroush-Bastani ➜ /workspaces/lab-8-Soroush-Bastani (main) $
Codespaces: organic space invention
main*
Ln 3, Col 59
Spaces: 4
UTF-8
LF
Python
Finish Setup
3.12.1
Layout: US

Lab 8f


lab-8-Soroush-Bastani [Codespaces: organic space invention]
EXPLORER
LAB-8-SOROUSH-BASTAN...
__pycache__
cashregister_test... U
cashregister.py M
cylinder_tester.py U
cylinder.py M
dog_tester.py M
dog.py M
README.md
store_tester.py U
cylinder.py M
cylinder_tester.py U
cashregister.py M
cashregister_tester.py U
store_tester.py U
cashregister.py > CashRegister > printReceipt
class CashRegister:
return total
def getTotalWithTax(self):
return self.getTotal() * (1 + CashRegister.TAX_RATE)
def getCount(self):
return len(self._items)
def clear(self):
self._items = []
def undo(self):
if len(self._items) > 0:
self._items.pop()
else:
print("No items to undo.")
def printReceipt(self):
# Print each item
print("----------")
for item in self._items:
name = item[0]
price = item[1]
# Formatted print: Name aligned left, Price aligned right
print(f"{name:<12} {price:.2f}")
print("----------")
print(f"Total: {self.getTotal():.2f}")
print("----------")
CHAT
TERMINAL
Python
/home/codespace/.python/current/bin/python /workspaces/lab-8-Soroush-Bastani/cashregister_tester.py
@Soroush-Bastani ➜ /workspaces/lab-8-Soroush-Bastani (main) $ /home/codespace/.python/current/bin/python /workspaces/lab-8-Soroush-Bastani/cashregister_tester.py
----
Apple 2.50
Bread 3.00
Milk 4.20

Total: 9.70

@Soroush-Bastani ➜ /workspaces/lab-8-Soroush-Bastani (main) $
OUTLINE
TIMELINE
Codespaces: organic space invention
main*
Not Committed Yet
Ln 39, Col 21 (12 selected)
Spaces: 4
UTF-8
LF
Python
Finish Setup
3.12.1
Layout: US


lab-8-Soroush-Bastani [Codespaces: organic space invention]
EXPLORER
LAB-8-SOROUSH-BASTAN...
__pycache__
cashregister_test... U
cashregister.py M
cylinder_tester.py U
cylinder.py M
dog_tester.py M
dog.py M
README.md
store_tester.py U
cylinder.py M
cylinder_tester.py U
cashregister.py M
cashregister_tester.py U
store_tester.py U
cashregister_tester.py > ...
1 # Author: Soroush Bastani Sbastani1
2 # Date: 2025-11-21
3 # Purpose: Tests the CashRegister class tax functionality.
4
5 from cashregister import CashRegister
6
7 def main():
8 register = CashRegister()
9
10 # Add items with names and prices
11 register.addItem("Apple", 2.50)
12 register.addItem("Bread", 3.00)
13 register.addItem("Milk", 4.20)
14
15 # Print the detailed receipt
16 register.printReceipt()
17
18 if __name__ == "__main__":
19 main()
20
OUTLINE
TIMELINE
CHAT
TERMINAL
Python
/home/codespace/.python/current/bin/python /workspaces/lab-8-Soroush-Bastani/cashregister_tester.py
@Soroush-Bastani ➜/workspaces/lab-8-Soroush-Bastani (main) $ /home/codespace/.python/current/bin/python /workspaces/lab-8-Soroush-Bastani/cashregister_tester.py
Apple 2.50
Bread 3.00
Milk 4.20
Total: 9.70
@Soroush-Bastani ➜/workspaces/lab-8-Soroush-Bastani (main) $
Codespaces: organic space invention
main*
Ln 20, Col 1
Spaces: 4
UTF-8
LF
Python
Finish Setup
3.12.1
Layout: US