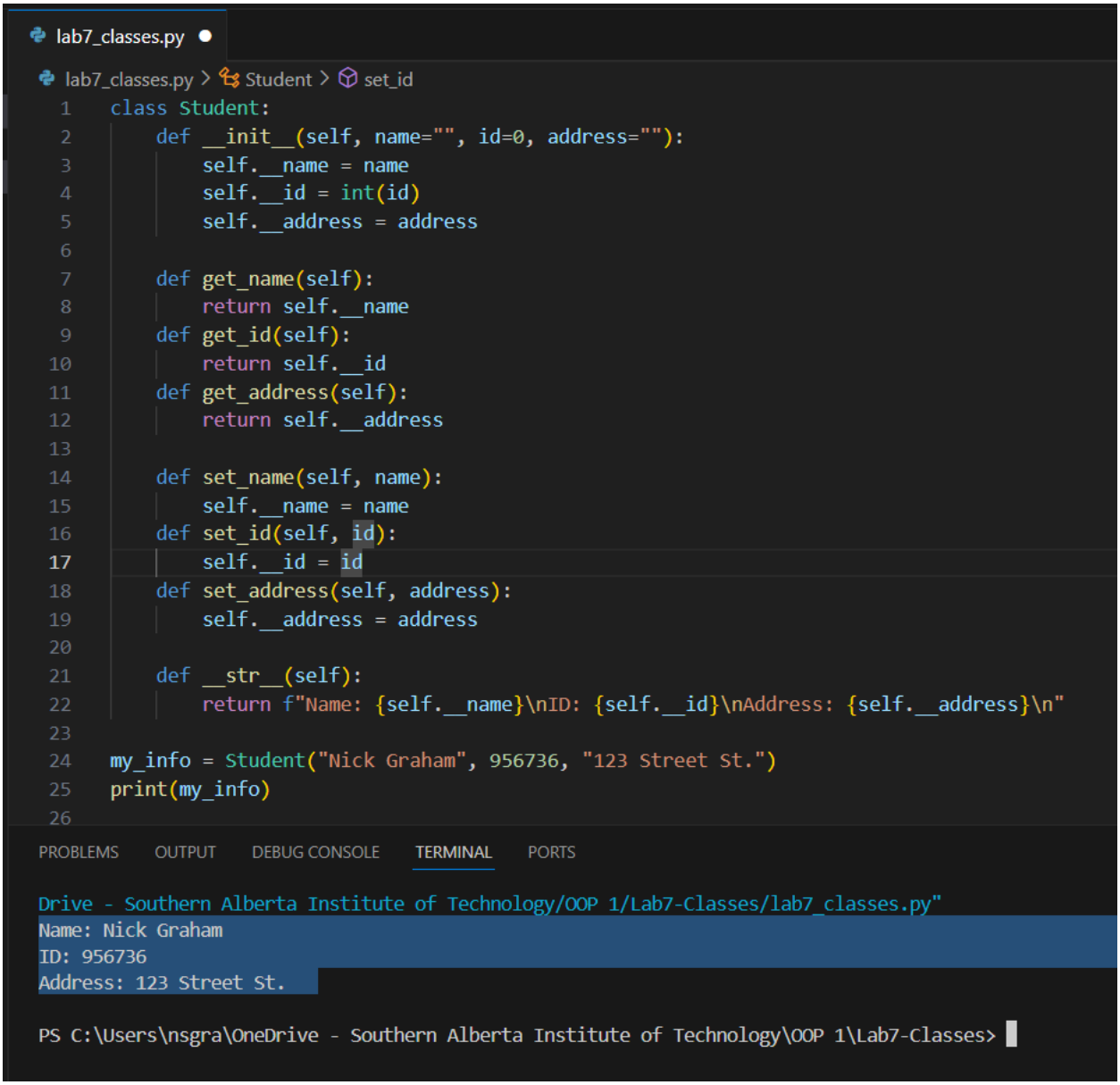
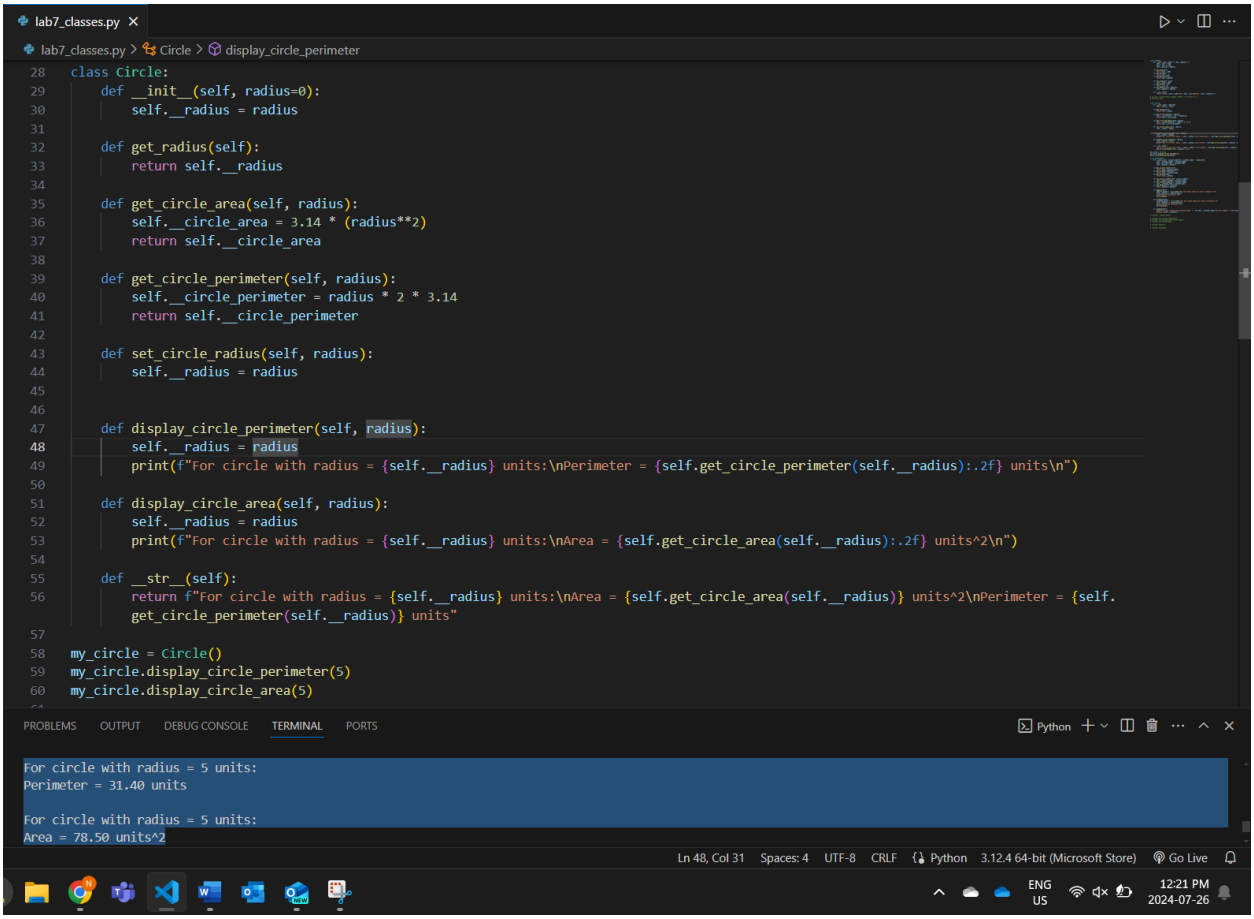
Nicholas Graham, CPRG 216, Lab 7 – Classes

ID: 956736




lab7_classes.py
lab7_classes.py > Circle > display_circle_perimeter
class Circle:
def __init__(self, radius=0):
self.__radius = radius
def get_radius(self):
return self.__radius
def get_circle_area(self, radius):
self.__circle_area = 3.14 * (radius**2)
return self.__circle_area
def get_circle_perimeter(self, radius):
self.__circle_perimeter = radius * 2 * 3.14
return self.__circle_perimeter
def set_circle_radius(self, radius):
self.__radius = radius
def display_circle_perimeter(self, radius):
self.__radius = radius
print(f"For circle with radius = {self.__radius} units:\nPerimeter = {self.get_circle_perimeter(self.__radius):.2f} units\n")
def display_circle_area(self, radius):
self.__radius = radius
print(f"For circle with radius = {self.__radius} units:\nArea = {self.get_circle_area(self.__radius):.2f} units^2\n")
def __str__(self):
return f"For circle with radius = {self.__radius} units:\nArea = {self.get_circle_area(self.__radius)} units^2\nPerimeter = {self.
get_circle_perimeter(self.__radius)} units"
my_circle = Circle()
my_circle.display_circle_perimeter(5)
my_circle.display_circle_area(5)
PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
PORTS
Python
For circle with radius = 5 units:
Perimeter = 31.40 units
For circle with radius = 5 units:
Area = 78.50 units^2
Ln 48, Col 31
Spaces: 4
UTF-8
CRLF
Python
3.12.4 64-bit (Microsoft Store)
Go Live
ENG
US
12:21 PM
2024-07-26

lab7_classes.py

lab7_classes.py > BankAccount

```python

class BankAccount:
    def __init__(self, account_number=0, customer_name="", balance=0):
        self.__account_number = account_number
        self.__customer_name = customer_name
        self.__balance = balance

    def get_account_number(self):
        return self.__account_number
    def get_customer_name(self):
        return self.__customer_name
    def get_balance(self):
        return self.__balance

    def set_account_number(self, account_number):
        self.__account_number = account_number
    def set_customer_name(self, customer_name):
        self.__customer_name = customer_name
    def set_balance(self, balance):
        self.__balance = balance

    def deposit(self):
        deposit_amount = float(input("How much money would you like to deposit? $"))
        self.__balance += deposit_amount
        print("Deposit Successful.\n")
        self.display()

    def withdraw(self):
        withdraw_amount = float(input("How much money would you like to withdraw? $"))
        self.__balance -= withdraw_amount
        print(f"Withdrawl successful.\n")
        self.display()

    def display(self):
        print(f"Account information:\nCustomer Name: {" "*2}{self.__customer_name}\nAccount Number:{" "*2}#{self.__account_number}\nAccount balance: ${self.__balance}")

customer = BankAccount()

customer.set_account_number(123)
customer.set_customer_name("Nick Graham")
customer.set_balance(100)

customer.deposit()

customer.withdraw()
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS Python

```
How much money would you like to deposit? $50
Deposit Successful.

Account information:
Customer Name:   Nick Graham
Account Number:  #123
Account balance: $150.0
How much money would you like to withdraw? $25
Withdrawl successful.

Account information:
Customer Name:   Nick Graham
Account Number:  #123
Account balance: $125.0
PS C:\Users\nsgra\OneDrive - Southern Alberta Institute of Technology\OOP 1\Lab7-Classes>
```

Ln 67, Col 5 Spaces: 4 UTF-8 CRLF Python 3.12.4 64-bit (Microsoft Store)