

Bumanglag, Angeline D.

BSCS-C203

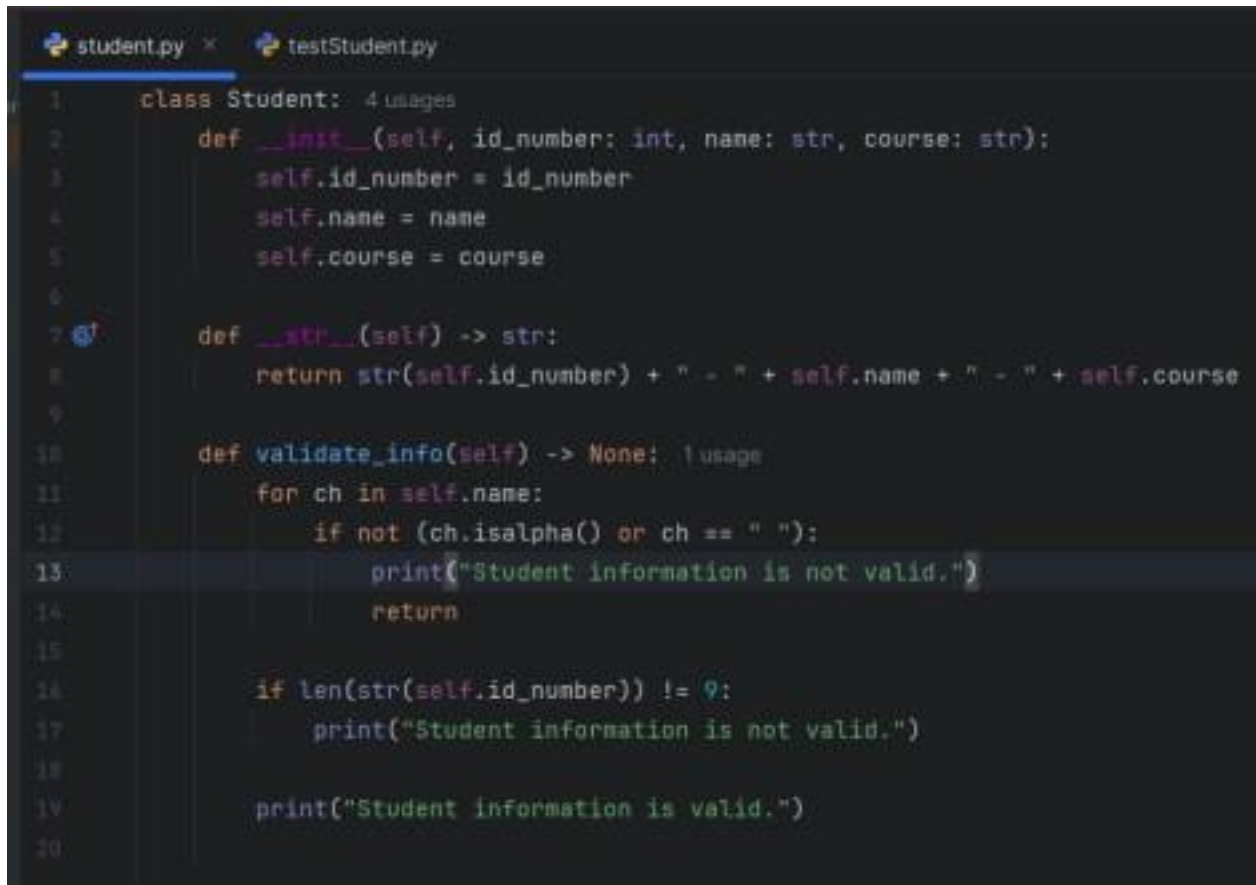
Mangalino, Chriselle C.

10/01/2025

Midterm Lab Task 6 (Constructor Activity)

PROBLEM # 2

CLASS – STUDENT:



```
student.py x testStudent.py
1 class Student: 4 usages
2     def __init__(self, id_number: int, name: str, course: str):
3         self.id_number = id_number
4         self.name = name
5         self.course = course
6
7     def __str__(self) -> str:
8         return str(self.id_number) + " - " + self.name + " - " + self.course
9
10    def validate_info(self) -> None: 1 usage
11        for ch in self.name:
12            if not (ch.isalpha() or ch == " "):
13                print("Student information is not valid.")
14                return
15
16        if len(str(self.id_number)) != 9:
17            print("Student information is not valid.")
18
19        print("Student information is valid.")
20
```

TEST CLASS:

```
student.py  testStudent.py x
1  from student import Student
2
3  def test_str_method():  # usage
4      print("Action: Invoking __str__() method with the following Student information:")
5      student1 = Student(id_number=123456789, name="John Doe", course="Computer Science")
6      print("ID:", student1.id_number)
7      print("Name:", student1.name)
8      print("Course:", student1.course)
9      print("\nOutput:")
10     print(student1)
11     print("-----")
12
13  def test_str_with_short_id():  # usage
14     print("Action: Invoking __str__() method with the following Student information:")
15     student2 = Student(id_number=12345, name="Jane Doe", course="Mathematics")
16     print("ID:", student2.id_number)
17     print("Name:", student2.name)
18     print("Course:", student2.course)
19     print("\nOutput:")
20     print(student2)
21     print("-----")
22
23  def test_validate_info():  # usage
24     print("Action: Invoking validate_info() method with the following Student information:")
25     student3 = Student(id_number=987654321, name="Alice123", course="Physics")
26     print("ID:", student3.id_number)
27     print("Name:", student3.name)
28     print("Course:", student3.course)
29     print("\nOutput:")
30     student3.validate_info()
31     print("-----")
32
33  # Run the tests
34  if __name__ == "__main__":
35      test_str_method()
36      test_str_with_short_id()
37      test_validate_info()
38
```

OUTPUT:

```
C:\Users\Patrick\PycharmProjects\PythonProject2\.venv\Scripts\python.exe C:\Users\
Action: Invoking __str__() method with the following Student information:
ID: 123456789
Name: John Doe
Course: Computer Science

Output:
123456789 - John Doe - Computer Science
-----
Action: Invoking __str__() method with the following Student information:
ID: 12345
Name: Jane Doe
Course: Mathematics

Output:
12345 - Jane Doe - Mathematics
-----
Action: Invoking validate_info() method with the following Student information:
ID: 987654321
Name: Alice123
Course: Physics

Output:
Student information is not valid.
-----
```