

Lab 9B

Lab 9b - Code

IC_student.py

```
IC_student.py studentDemo.py
1 class Student:
2     def __init__(self, name):
3         self._name = name
4         self._totalScore = 0
5         self._counter = 0
6
7     def getName(self):
8         return self._name
9
10    def addQuiz(self):
11        while True:
12            try:
13                score = float(input("Please enter the score of a quiz"
14                                   " (enter a negative score"
15                                   " or a word to stop): "))
16
17                if score < 0:
18                    break
19                self._totalScore = self._totalScore + score
20                self._counter = self._counter + 1
21            except ValueError:
22                break
23
24    def getTotalScore(self):
25        return self._totalScore
26
27    def getAverageScore(self):
28        if self._counter == 0:
29            print("No quizzes taken")
30            return 0
31        average = self._totalScore / self._counter
32        return average
```

studentDemo.py

```
IC_student.py studentDemo.py
1 def main():
2     from IC_student import Student
3     name = input("Enter the student's name: ")
4     student = Student(name)
5     student.addQuiz()
6     print("The total score for %s is %d and the average is %.1f"
7           % (student.getName(), student.getTotalScore(),
8              student.getAverageScore()))
9
10
11 main()
12
```

Lab 9b - Output

Python Shell: Wing

Python Shell

Commands execute without debug. Use arrow keys for history.

```
Python 3.10.9 (tags/v3.10.9:1dd9be6, Dec 6 2022, 20:01:21) [MSC v.1934 64 bit (AMD64)]
Type "help", "copyright", "credits" or "license" for more information.
>>> [evaluate studentDemo.py]
Enter the student's name: Jon
Please enter the score of a quiz (enter a negative score or a word to stop): 100
Please enter the score of a quiz (enter a negative score or a word to stop): 90
Please enter the score of a quiz (enter a negative score or a word to stop): -1337 x 420
The total score for Jon is 190 and the average is 95.0
>>>
```

Lab 9b - Written Code

IC_student.py

```
class Student:
    def __init__(self, name):
        self._name = name
        self._totalScore = 0
        self._counter = 0

    def getName(self):
        return self._name

    def addQuiz(self):
        while True:
            try:
                score = float(input("Please enter the score of a quiz"
                                     " (enter a negative score"
                                     " or a word to stop): "))

                if score < 0:
                    break
                self._totalScore = self._totalScore + score
                self._counter = self._counter + 1
            except ValueError:
                break

    def getTotalScore(self):
        return self._totalScore

    def getAverageScore(self):
        if self._counter == 0:
            print("No quizzes taken")
            return 0
        average = self._totalScore / self._counter
        return average
```

studentDemo.py

```
def main():
    from IC_student import Student
    name = input("Enter the student's name: ")
    student = Student(name)
    student.addQuiz()
    print("The total score for %s is %d and the average is %.1f"
          % (student.getName(), student.getTotalScore(),
             student.getAverageScore()))

main()
```