

Mock test

Program(studentGrading.py):

#create a class to perform various functions

class Grade:

def __init__(self):

self.marks = []

self.result = []

self.total = 0

#function to obtain number of students from the user == N students

def get_marks(self):

self.number = int(input('Enter how many students:'))

for i in self.number:

self.marks.append('Enter the marks: ')

#function to calculate the mark and add them in a list

def calculate_mark(self):

self.result = []

if self.marks < 0 and self.marks >100:

if (self.marks >= 40):

self.result.append('Pass')

else:

self.result.append('Fail')

else:

self.result.append('Invalid Marks')

return self.result

#function to calculate the total marks

```
def total_marks(self):
```

```
    self.total = 0
```

```
    for i in self.marks:
```

```
        total = total + i
```

```
        print('Total marks is: ', total)
```

```
    return self.total
```

#function to calculate the average marks

```
def average_marks(self):
```

```
    self.average = self.total / self.number
```

```
    print('The average marks is: ', self.average)
```

```
    return self.average
```

#function to count the number of students who passed

```
def number_of_passed_stu(self):
```

```
    self.pcount = 0
```

```
    for i in self.result:
```

```
        if i == 'Pass':
```

```
            self.pcount = self.pcount + 1
```

```
        else:
```

```
            self.pcount
```

```
    return self.pcount
```

#function to count the number of students who failed

```
def number_of_failed_stu(self):
```

```
    self.fcount = 0
```

```
    for i in self.result:
```

```
if i == 'Fail':  
    self.fcount = self.fcount + 1  
else:  
    self.fcount  
return self.fcount
```

#creation of object to access the class methods

```
obj_grade = Grade ()  
obj_grade.get_marks()  
obj_grade.calculate_mark()  
obj_grade.total_marks()  
obj_grade.average_marks()  
print('Passed student count: ', obj_grade.number_of_passed_stu)  
print('Failed student count: ', obj_grade.number_of_failed_stu)
```