Nested if statements and Operators Continued

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1 Nested if statements

- Writing if statements within if statements if called nested if statements.

1.1 Largest of three distinct integers using nested if statements

[3]:
```
a, b, c = map(int, input().split())
if a > b:
    if a > c:
        print(a)
    else:
        print(c)
else:
    if b > c:
        print(b)
    else:
        print(c)
```

```
20 30 10
30
```

Take the marks (out of 100) of a student in 5 subjects
English
Maths
Physics
Chemistry
Computer Science respectively.
And do the following

If marks in each subject >=35 –> PASS
if and only if student is passed
Print total marks obtained
Print Percentage
Based on Percentage grade the students on following criteria
Grading Criteria
per>=90 –> O
80<=per<90 –> A
70<=per<80 –> B
60<=per<70 –> C

50<=per<60 –> D
35<=per<50 –> E

else –> FAIL
If and only if student is failed
print the names of the subjects student failed in

Example:
Input 1:
35 35 35 35 35
Output 1:
PASS
Total marks: 175
Percentage: 35.00
Grade: O

Input 2:
90 90 90 90 25
Output 2:
FAIL
Failed in CS by 10 marks

Input 3:
50 50 50 50 50
OUtput 3:
PASS
Total marks: 250
Percentage: 50.00
Grade: D

Input 4:
45 25 45 20 60
Output 4:
FAIL
Failed in Maths by 10 marks
Failed in Chemistry by 15 marks

[9]:
```
# Task Solution
e, m, p, ch, cs = map(int, input().split())
if e > 34 and m > 34 and p > 34 and ch > 34 and cs > 34:
    print('PASS')
    total = e + m + p + ch + cs
    print(f'Total Marks: {total}')
    per = total/5
    print(f'Percentage: {per}')
    if per >= 90:
        print('O')
    elif 80<=per<90:
        print('A')
    elif 70<=per<80:
```

```
        print('B')
    elif 60<=per<70:
        print('C')
    elif 50<=per<60:
        print('D')
    elif 35<=per<50:
        print('E')
else:
    print('FAIL')
    if e < 35:
        print(f'Failed in English by {35-e}')
    if m < 35:
        print(f'Failed in Maths by {35-m}')
    if p < 35:
        print(f'Failed in Physics {35-p}')
    if ch < 35:
        print(f'Failed in Chemistry {35-ch}')
    if cs < 35:
        print(f'Failed in CS {35-cs}')
```

```
20 35 20 35 25
FAIL
Failed in English by 15
Failed in Physics 15
Failed in CS 10
```