Tutorial

CPSC 217

Making decisions in Python (if…elif…else chain statement)

```
If (condition_1) :
        statement(s)
elif (condition_2) :
         statement(s)
elif (condition_3) :
.
.
elif (condition_n) :
        statement(s)
else :
        statement(s)
```

One of them will be executed and others will be ignored.

(starts from top)

Making decisions in Python (if…elif…else chain statement)

- WAP that will give you a Grade based on student's marks input. Use following grading system.

Marking range	Grade or message
Marks <= 100 and Marks >= 90	A
Marks < 90 and Marks >= 80	B
Marks < 80 and Marks >= 70	C
Marks < 70 and Marks >= 60	D
Marks < 60 and Marks >= 0	F
otherwise	Invalid marking

Making decisions in Python (if…elif…else chain statement)

- Solution

```
marks = float(input("Enter a marks : "))

if (marks < 0) :
        print("Invalid marking.....")
elif (marks > 100) :
        print("Invalid marking.....")
elif (marks >= 90) :
        print("Grade: A")
elif (marks >= 80) :
        print("Grade: B")
elif (marks >= 70) :
        print("Grade: C")
elif (marks >= 60) :
        print("Grade: D")
else :
        print("Grade: F")
```

- Remember:
  - If, If else, and if elseif statements can be nested (one can be put under another)

```
If (condition):
        if (condition2) :
                print("Y")
        elif (condition3) :
                print("X")
        else :
                print("Z")
```

Practice 2

- Program that will construct a menu for performing arithmetic operations. The user will give two real numbers **(a, b)** on which the arithmetic operations will be performed and an integer number (1 <= **Choice** <= 4) as a choice. Choice-1, 2, 3, 4 are for performing addition, subtraction, multiplication, division respectively. Also check for division error when the divisor is given as zero.

Practice 1

- Write a program that asks for the length and width of two rectangles. The program should tell user which rectangle has the greater area, or if the areas are the same.