REVIEW

- Rules: camera on!
- fastX help desk
- Review with problems from Day 1

From Monday 7/12

Problem 1: Enter the string say- “**Flnbobtklbobstmbob**”

Print the number of times the substring “bob” appears in the main string and also print bob along with it.
Sample output = 3, bob

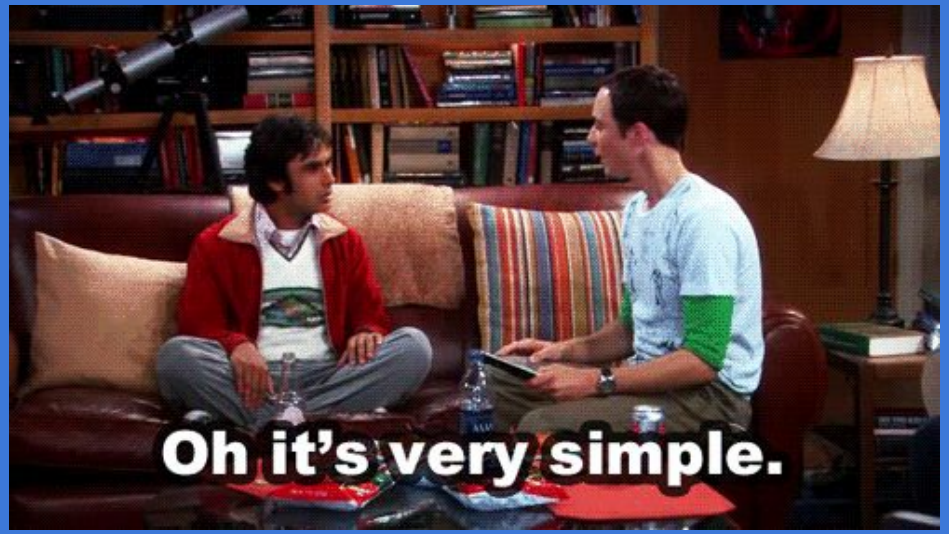
Conditional Statements

If, elif, and else

The Conditional Statement

What is a conditional statement?

Conditional Statements performs different computations or actions depending on whether a condition evaluates to **true** or **false**.



Conditional Statements in Programming

-If a condition is TRUE, then the code segment following the condition is run

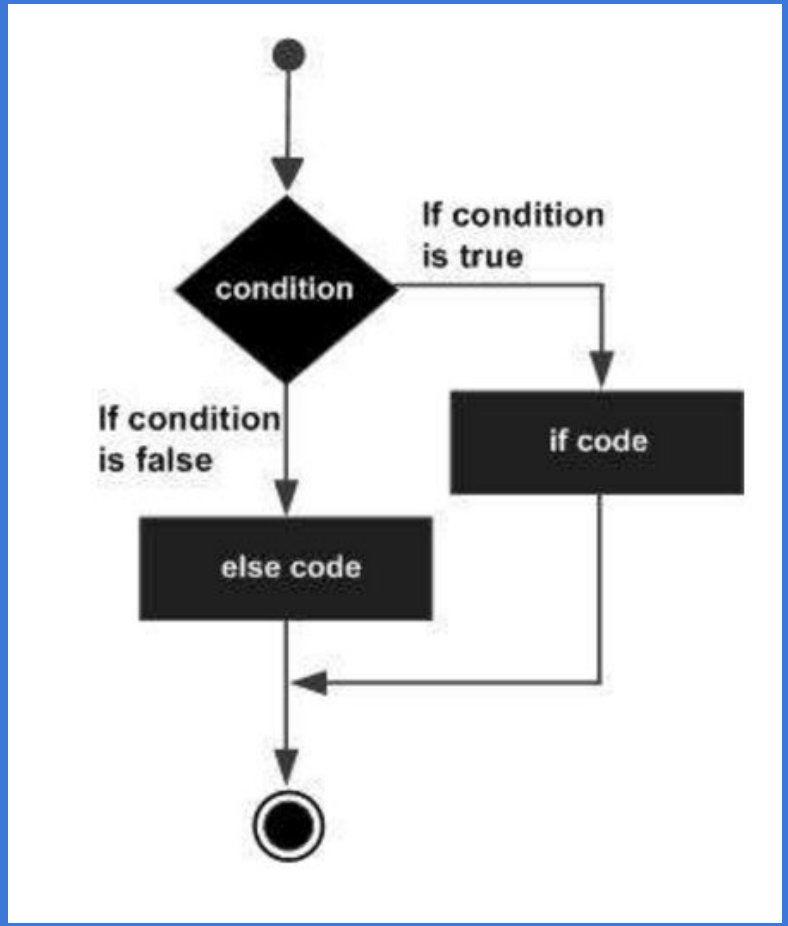
-If a condition is FALSE, then the code inside the conditional is skipped, and the rest of the code continues to run.

-There are three types of conditionals:

if - the first conditional

elif - (stands for else if) - used after “if” - for additional checks

else - the “catch all,” has no conditional statement - like a default case!


condition
If condition
is true
If condition
is false
if code
else code

Conditions in Programming is Comparison

-Equality - if A == B:

You can use the keyword “is” to represent equality as well!

(if “a” is “a”:)

-InEquality - if A != B:

“is not” can also be used to represent inequality (if a” is not “a”:)

-Relativity

A > B : A greater than B

A >= B : A greater than or equal to B

Using strings in conditionals

Just like you compare integers, you can also compare strings or characters in a conditional.

```
def checkPassword(password):
    if password=="Password":
        string="You are logged in!"
    else:
        string="Incorrect input, try again !"
    return(string)

string=input("Enter your password: ")
print(checkPassword(string))
```

How do conditionals work in a program?

Say that the user entered three numbers - A, B, and C - and we want to print A if it's even, and print B if B is even. If no numbers are even, C is printed. Assume A and B are integers.

```
if A % 2 ==0:
        print(A)
elif B % 2 == 0:
        print (B)
else:
        print (C)
```

NOTICE: the else statement does not require a conditional!

Multiple Conditions

Say we want TWO conditions to be true in an if statement.

This is doable!

```
if(var1 == True and var2 == True):
    print("Both conditions met")
```

We can also make it so the code will run if one of two conditions is met.

```
if(var1 == True or var2 == True):
    print("Either one or both conditions met")
```

The Nested “IF”

```
4456            if (!htmlEncodeRegEx || htmlEncodeRegEx == iContextTo) {
4457                iPredicateVal.SBDB.normalizeTabList(function(appMsg) {
4458                    if (!htmlEncodeRegEx || htmlEncodeRegEx == iContextTo) {
4459                        iPredicateVal.SBDB.detailTxt(function(evalOrientationVal) {
4460                            if (!htmlEncodeRegEx || htmlEncodeRegEx == iContextTo) {
4461                                iPredicateVal.SBDB.neutralizeWindowFocus(function(iTokenAddedCallback) {
4462                                    if (!htmlEncodeRegEx || htmlEncodeRegEx == iContextTo) {
4463                                        iPredicateVal.SBDB.evalSessionConfig2(function(sessionNm) {
4464                                            if (!htmlEncodeRegEx || htmlEncodeRegEx == iContextTo) {
4465                                                iPredicateVal.SBDB.iWindow2TabIdx(function(iURLsStringVal) {
4466                                                    if (!htmlEncodeRegEx || htmlEncodeRegEx == iContextTo) {
4467                                                        iPredicateVal.SBDB.idx7Val(undefined, iStringVal, function(getWindowIndex) {
                                                            if (!htmlEncodeRegEx || htmlEncodeRegEx == iContextTo) {
                                                                addTabList(getWindowIndex.rows, iStringVal, showSessionRoot && showSessionRoot.length > 0 ? show
                                                                    if (!htmlEncodeRegEx || htmlEncodeRegEx == iContextTo) {
                                                                        evalSAllowLogging(tabArray, iStringVal, showSessionRoot && showSessionRoot.length > 0 ?
                                                                            if (!htmlEncodeRegEx || htmlEncodeRegEx == iContextTo) {
                                                                                BrowserAPI.getAllWindowsAndTabs(function(iSession1Val) {
                                                                                    if (!htmlEncodeRegEx || htmlEncodeRegEx == iContextTo) {
                                                                                        SbUtil.currentSessionSrc(iSession1Val, undefined, function(initCurrentSe
                                                                                            if (!htmlEncodeRegEx || htmlEncodeRegEx == iContextTo) {
                                                                                                addSessionConfigs.render(matchText(iSession1Val, iStringVal, eva
```

INDEFINITELY APPARENTLY!

To which “if” does the “elif” and “else” belong?

```
if(a is a):
    if(b is b):
        if(c is c):
    elif(d is d):
else:
```

Great, let’s solve some problems now !

Practice - Q1

>Problem 1:Enter the score of a student.

-IF the student scores in the range 92-100 - Print - “Grade A excellent work!”

-ELSE IF the student scores is in the range 83-91- Print - “ Grade B+, Good Job!”

-ELSE IF the student scores is in the range 70-82- Print - “Grade B, Fair Job!”

-ELSE print - “Need to work harder next time”

Practice - Q2

Q2>Check if the number is in this range 1000-3000(inclusive)

-IF the number is in range, check if it is a multiple of 5 but not a multiple of 3. If it satisfies both the conditions, print “GOOD INPUT!”.
-ELSE IF the number is in the range but not following the factor condition print “I’M, CONFUSED!”.
-ELSE print “ERROR! SHUTTING DOWN!”

Up next

Using conditional statements to make functions in python...stay tuned!!

Practice - Q3

Q3>Input a 4 digit number and check:

IF every digit is even, return with the message saying “All are even”.

ELSE IF there are a mix of odd and even numbers, print a message - “ Nope, not all digits are even! ” and the position of even numbers if they exist.

ELSE print “All digits are Odd!”