**More IF statements**

Before we continue our work with IF statements, a little trick:

print ("Hello")

print ("Goodbye")

It’s pretty obvious what this does. It prints two words on separate lines. Python ends every print statement with a new line, as if someone typed the “ENTER” key after each word. But what if you want both words on the same line?

print ("Hello", end =" " )

print ("Goodbye")

Adding the end option in our print statement allows us to end with a space instead of a new line. This prints both statements on a single line. This will be useful often.

**Nested IF statements**

Back to our work with IF statements.

An IF statement can be ***nested*** inside another IF statement. Here is an example:

age = int(input("Enter your age: "))

if age >= 18:

print ("You are a senior")

if age >= 65: # notice the indent!

print ("citizen !")

If you enter 18 or more you’ll get this response:

You are a senior

If you enter 65 or more you’ll get this:

You are a senior

citizen!

This works because your age is over 18 AND over 65.

Notice the word "citizen!" appears on a new line. Let’s fix that:

age = int(input("Enter your age: "))

if age >= 18:

print ("You are a senior ", end ="" ) # connects this with next print()

if age >= 65:

print ("citizen !")

So now the print statements will all be on the same line:

You are a senior citizen!

Now let’s add another stage (in blue):

age = int(input("Enter your age: "))

if age >= 18:

print ("You are a senior ", end="")

if age >= 65:

print ("citizen!")

else: # this means you are not over 18

print ("you are a minor !")

Be very careful with the indents! Make sure they match what you see above.

If you enter an age less than 18 you’ll get:

You are a minor

This ELSE statement is in line with the first IF statement. So in this case the ELSE means “you are not over 18”.

age = int(input("Enter your age:"))

if age >= 18:

print ("You are a senior " , end = "")

if age >= 65:

print ("citizen !")

else:

print ("and it’s all downhill from here!")

else:

print ("You are a minor!")

Fill in this chart to make sure you follow the program:

| Input (age) | Output |
| --- | --- |
| 5 |  |
| 15 |  |
| 18 |  |
| 25 |  |
| 60 |  |
| 65 |  |

**Exercises**

1. Ask the user for a login. If the login is “apple” then tell the user it has been accepted. If not, give the message “Login not recognized”
2. Add to your previous program. If the login is accepted, ask for the password. If the password is “12345” then welcome the user to the network. If not, give the message “Incorrect Password”.
3. Add to your previous program by adding the message “Have a good day!” regardless of the login or password entry.

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