

Conditionals

Spoken Tutorial Project

<http://spoken-tutorial.org>

National Mission on Education through ICT

<http://sakshat.ac.in>

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Objectives

At the end of this tutorial, you will be able to,



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- ▶ **Use if/else blocks.**



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- ▶ **Use if/else blocks.**
- ▶ **Use if/elif/else blocks.**
- ▶ **Use the Ternary conditional statement**



System Specifications



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- ▶ **Ubuntu Linux 14.04**



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- ▶ **Python 2.7.6**



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- ▶ **Python 2.7.6**
- ▶ **IPython 4.0.0**



Pre-requisite

To practice this tutorial, you should know how to -



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To practice this tutorial, you should know how to -

- ▶ use datatypes and operators**



Pre-requisite

To practice this tutorial, you should know how to -

- ▶ use datatypes and operators
- ▶ use strings and I/O statements

If not, see the pre-requisite Python tutorials on <http://spoken-tutorial.org>



if condition

if statement is used to decide whether or not to execute statements in if block.



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Syntax:

```
if <condition>:  
    statements
```



if else condition

Syntax:

```
if <condition>:  
    True block statements  
else:  
    False block statements
```



elif statement

Syntax:

```
if condition-1:
    statements when cond-1 True
elif condition-2:
    statements when cond-2 True
else:
    statements when all conds\
Fail
```



if/elif ladder

```
if user == 'admin':  
    # Do admin operations  
elif user == 'moderator':  
    # Do moderator operations  
elif user == 'client':  
    # Do client operations
```



Assignment 1

Given a number, num. Write an if else block to print num, as is, if it is divisible by 10, else print $10 * \text{num}$.



Solution 1

```
if num%10 == 0:  
    print num  
else:  
    print 10*num
```



Assignment 2

Given a number, num. Write a ternary operator to print num, as is, if it is divisible by 10, else print $10 * \text{num}$.



Solution 2

```
print num if num%10 == 0 else 10*num
```



Pass statement

- ▶ **The pass statement acts as a null operation; nothing happens when it executes.**



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- ▶ It acts as a place holder for the block of code.
- ▶ It is used in code block where actual code implementation is not known yet.



Pass statement example

```
if calculate == 'marks':  
    # Calculate the marks & exit  
else:  
    pass
```



Summary

In this tutorial, we have learnt to,

- ▶ **Use conditional statements in Python.**



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- ▶ **Use ternary conditional statement**



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In this tutorial, we have learnt to,

- ▶ **Use conditional statements in Python.**
- ▶ **Use if/else statement.**
- ▶ **Use if/elif/else statement.**
- ▶ **Use ternary conditional statement**
- ▶ **Use "pass" statement.**



Self assessment questions

1. **Given a variable time, print Good Morning if it is less than 12, otherwise print Hello. Use if else statement**



Self assessment questions

2. Convert the if else ladder below into a ternary conditional statement.

```
x = 20
if x > 10:
    print x * 100
else:
    print x
```



Solution of self assessment questions

```
1. if time < 12:  
    print "Good Morning"  
else:  
    print "Hello"
```



Solution of self assessment questions

1.

```
if time < 12:  
    print "Good Morning"  
else:  
    print "Hello"
```
2.

```
print x * 100 if x > 10 else x
```



Forum to answer questions

- ▶ Do you have questions in **THIS Spoken Tutorial?**
- ▶ Choose the minute and second where you have the question.
- ▶ Explain your question briefly.
- ▶ Someone from the **FOSSEE** team will answer them. Please visit

<http://forums.spoken-tutorial.org/>



Forum to answer questions

- ▶ Questions not related to the Spoken Tutorial?
- ▶ Do you have general / technical questions on the Software?
- ▶ Please visit the FOSSEE Forum
<http://forums.fossee.in/>
- ▶ Choose the Software and post your question.



Textbook Companion Project

- ▶ The FOSSEE team coordinates coding of solved examples of popular books
- ▶ We give honorarium and certificate to those who do this

For more details, please visit this site:

<http://tbc-python.fossee.in/>



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- ▶ **It is supported by the National Mission on Education through ICT, MHRD, Government of India**
- ▶ **More information on this Mission is available at:**

<http://spoken-tutorial.org/NMEICT-Intro>



THANK YOU!

For more Information, visit our website
<http://fossee.in/>

