

Conditional Statements

Spoken Tutorial Project

<http://spoken-tutorial.org>

National Mission on Education through ICT

<http://sakshat.ac.in>

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Learning Objectives



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- ▶ **if/else blocks**



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- ▶ **Ternary conditional statement**



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- ▶ **if/elif/else blocks**
- ▶ **Ternary conditional statement**
- ▶ **Pass statement**



System Specifications



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▶ Ubuntu Linux 16.04



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- ▶ **Ubuntu Linux 16.04**
- ▶ **Python 3.4.3**



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- ▶ **Python 3.4.3**
- ▶ **IPython 5.1.0**



Pre-requisite

To practice this tutorial, you should know how to use



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- ▶ **Basic datatypes and operators**



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- ▶ **Strings and input/output statements**



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



if condition



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It is used to decide whether to execute the statements in the **if** block or not



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Syntax:

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



if else condition



if else condition

Syntax:

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



elif statement



elif statement

Syntax:

```
if <condition-1>:  
    #statements when cond-1 True  
elif <condition-2>:  
    #statements when cond-2 True  
else:  
    #statements when all  
    conditions Fail
```



if/elif Example



if/elif Example

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



Assignment 1

- ▶ Given a number, **num** as input
- ▶ Write an **if else** block to print **num**, if it is divisible by 10, else print **10 * num**



Solution 1

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



Ternary operator



Ternary operator

- ▶ It allows to test a condition in a single line replacing the multiline if-else



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Syntax:

```
[A] if <condition> else [B]
```



Assignment 2

- ▶ Given a number, **n** as input
- ▶ Write an **ternary operator** to print **n**, if it is divisible by 10, else print **10 * n**



Solution 2

```
print (n) if n%10==0 else 10*n
```



Pass statement



Pass statement

- ▶ **It acts as a null operation (i.e) nothing happens when it executes**



Pass statement

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- ▶ It works as a placeholder for a block of code



Pass statement

- ▶ It acts as a null operation (i.e) nothing happens when it executes
- ▶ It works as a placeholder for a block of code
- ▶ It is used in a code block where actual code implementation is not known yet



Summary

- ▶ **if/else statement**
- ▶ **if/elif/else statement**
- ▶ **Ternary conditional statement**
- ▶ **Pass statement**



Evaluation

1. Given a variable **t**

Print **Good Morning** if it is less than 12, otherwise print **Hello**

Use **if else** statement



Evaluation

2. Convert the below **if else** code into **ternary** conditional statement

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



Solution 1

```
if t < 12:  
    print ("Good Morning")  
else:  
    print ("Hello")
```



Solution 1

```
if t < 12:  
    print ("Good Morning")  
else:  
    print ("Hello")
```



Solution 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/>



Acknowledgements

- ▶ **Spoken Tutorial Project is a part of the Talk to a Teacher project**
- ▶ **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/>

