

# Exercises: Conditional Statements - 01

## Task 1: (if, else, elif ....)

Write a program that asks the employee for a number between 0 and 7. The number is to serve as a substitute for a day:

0 = Monday, 1 = Tuesday, ....., 7 = Sunday

The program should then display a message (depending on the input!) on the screen to the employee, whether he

- a) "You have to work ...! (for Monday to Friday)
- b) "Enjoy the time now ...! (for Saturday and Sunday)
- c) "Wrong input...!" (for wrong number)

## Task 2: (if, else, elif ....)

You have to divide your customers into **4 categories**.

Currently the following rule applies:

If the customer <18	then 'child', i.e. <b>may not be included</b>
If applies: 18 >= Customer <25	then ' <b>Youth</b> '.
If applies: 25 >= customer <35	then ' <b>YoungAdult</b> '.
If applies: 35 >= Customer <60	then ' <b>MiddleAged</b> '.
If applies: 60 >= Customer	then ' <b>Senior</b> '.

As an example, the following **output** is to be generated after the user has entered the age of the customer (e.g. 22 year ) via 'input()':

=> Prolonged output:

**The customer belongs to the 'Youth' category!**

and so on.

### Task 3: (if, elif, else ...)

Source: <https://www.w3resource.com/python-exercises/python-conditional-exercise-2.php>

Write a Python program to convert temperatures to and from **celsius**, **fahrenheit**.

Python: Centigrade and Fahrenheit Temperatures :

The centigrade scale, which is also called the Celsius scale, was developed by Swedish astronomer Andres Celsius. In the centigrade scale, water freezes at 0 degrees and boils at 100 degrees. The centigrade to Fahrenheit conversion formula is:

Fahrenheit and centigrade are two temperature scales in use today. The Fahrenheit scale was developed by the German physicist Daniel Gabriel Fahrenheit . In the Fahrenheit scale, water freezes at 32 degrees and boils at 212 degrees.

**Rule:**  $C = (5/9) * (F - 32)$

where F is the Fahrenheit temperature.

Write two programs that will allow you to convert a) from **celsius** to **fahrenheit** and b) from **fahrenheit** to **celsius**.

Think about how you can combine the two programs in one program using a special input, e.g. F45 (for **fahrenheit**) or C23 (**celsius**)