



Objective 7:

Understand condition controlled iterations

In this objective you learn how to get code to repeat continually until a condition is met.

Tasks

1. Try entering the following program and see what happens by entering a few numbers and ending by entering zero:

```
#Program to add up numbers until 0 is entered
#Initialise variables
total=0
number=1
#Enter numbers to add
while number>0:
    number=int(input("Enter a number: "))
    #Add number to total
    total=total+number
#Output result
print("The sum of the numbers is:",total)
```

Objective 7: Key learning points

Condition controlled iterations

- When it is not known in advance how many times code needs to be repeated, a condition controlled loop is used.
- Condition controlled iterations are useful when you want to validate data entry by only continuing to the next statements once the data input is correct.
- Code must be indented inside iteration statements.

Objective 7: Key words

While...

Example code: `while counter < 3:`

...

Checks the condition and if true executes the indented code, returning to check again afterwards.