

# Modul 8

## Looping in Python

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### 1. While Loop

Python programming language provides following types of loops to handle looping requirements. Python provides three ways for executing the loops. While all the ways provide similar basic functionality, they differ in their syntax and condition checking time.

In python, while loop is used to execute a block of statements repeatedly until a given a condition is satisfied. And when the condition becomes false, the line immediately after the loop in program is executed.

Syntax :

```
while expression:  
    statement(s)
```

All the statements indented by the same number of character spaces after a programming construct are considered to be part of a single block of code. Python uses indentation as its method of grouping statements.

```
# Python program to illustrate  
# while loop  
count = 0  
while (count < 3):  
    count = count + 1  
    print("Hello Geek")
```

### Output:

```
Hello Geek  
Hello Geek  
Hello Geek
```

## 2. Using else statement with while loops

while loop executes the block until a condition is satisfied. When the condition becomes false, the statement immediately after the loop is executed.

The else clause is only executed when your while condition becomes false. If you break out of the loop, or if an exception is raised, it won't be executed. If else like this:

```
if condition:
    # execute these statements
else:
    # execute these statements
```

Example:

```
#Python program to illustrate
# combining else with while
count = 0
while (count < 3):
    count = count + 1
    print("Hello Geek")
else:
    print("In Else Block")
```

**Output:**

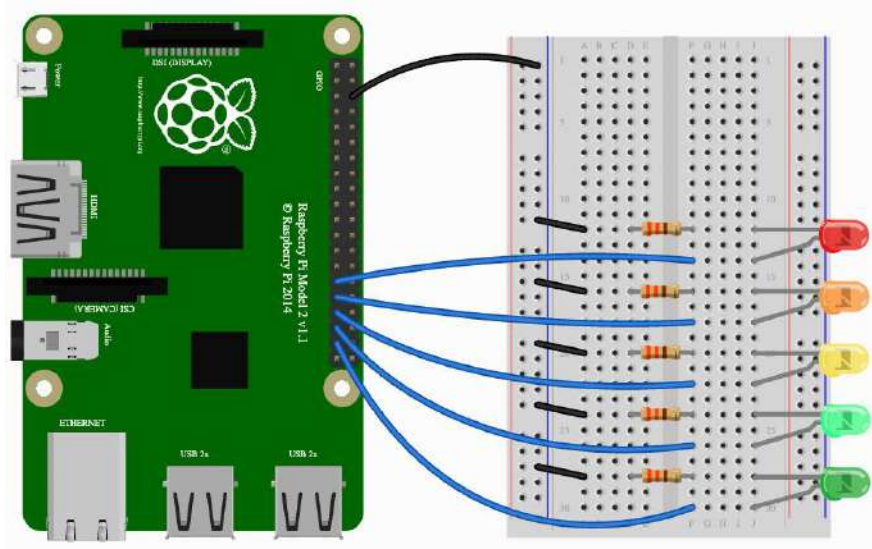
```
Hello Geek
Hello Geek
Hello Geek
In Else Block
```

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## JOBSHEET 8

Lakukan perakitan komponen pada gambar di bawah ini dan gunakan script program Python untuk menghidupkan LED dengan Ketentuan:

1. LED hidup bergantian random masing-masing selama 3 detik.
2. LED hidup berurutan masing-masing selama 2 detik



LAPORAN HASIL PERCOBAAN: