



**Data Science
Bootcamp**

Hyperiondev

While Loops

WELCOME TO THE EVENT HANDLING TASK

Your Lecturer for This Session



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Objectives

- Learn how to execute a block of code repeatedly with While Loops.

Loops

- ★ **Loops** are used when we need to **repeat** a **certain block** of code **multiple times**.
- ★ There are **two types** of **loops** that will be introduced:
 - **while** loops
 - **for** loops

while Loops

- ★ While loops are used in situations when we are not sure how many times we need to repeat the code block.
- ★ Therefore, we can use a while loop to execute a certain condition. While our condition is True, the code within the loop will execute, however, the loop will terminate the moment our condition becomes False.

while Loop Example and Syntax

```
kittens = 0
question = input("Has a kitten attempted world domination? (y/n) : ")

while question == "y":
    kittens = kittens + 1
    print(str(kittens) + " attempted world domination")
    question = input("Add another kitten? (y/n) : ")
```

Infinite Loops

- ★ There may be some cases where we would need the loop to keep looping for as long as the program is running.
- ★ This would be referred to as an infinite loop.
- ★ Example:

```
while True:  
    print("I am an infinite loop")  
    print("And no one can stop me!")
```

Breaking the Loop

- ★ At some point, we would like to **break** out of our infinite loop. In order to achieve that, we can use the break statement to exit the loop.
- ★ Example:

```
while True:
    question = input("Do you wish to stop me? (y/n) : ")
    if question == "y":
        print("As you wish")
        break
```


Continuing the Loop

- ★ The continue statement is used to skip any and all lines of code within a loop for the current iteration only.
- ★ The loop will not terminate, but will continue with the next iteration.
- ★ The loop will not break.

Continue Example

```
while True:
    print("I am a loop!")
    question = input("Would you like me to continue? (y/n) : ")
    if question == "y":
        print("Back to the beginning!")
        continue
    else:
        print("I shall cease")
        break
```

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Q & A Section

Please use this time to ask any questions relating to the topic, should you have any.



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Thank You for Joining Us