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STEM Digital Academy

School of Science & Technology

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BREAK Statements

Programming and Algorithms

Lecture by

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```
n = 3
for i in range(1,n+1):
    print("Hello World!")
```

```
Hello World!
Hello World!
Hello World!
```

What will we Cover?

- BREAK statements
- Use numeric and Boolean data types

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BREAK Statements

- Can be used to break out of a loop, `for` or `while`
- Terminate a loop depending on a criteria provided by the user

Example

Nasima will keep driving along the road A. If there is a stop sign or a red signal, she will stop the car.

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BREAK Statements in Python

Could be used with `while` and `for` loops

```
while <condition>:
 body(if <condition>:
  break)
```

Extra indentation for the `break` statement

`break` statement is written as part of the body of an `if` statement

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BREAK Statement Flow Chart


```
n = int(input("enter n: "))
total = 0

for count in range(1, n+1):
 total += count
 if total > 50:
  break
print("the total is", total)
print("the count is", count)
```

Condition for break

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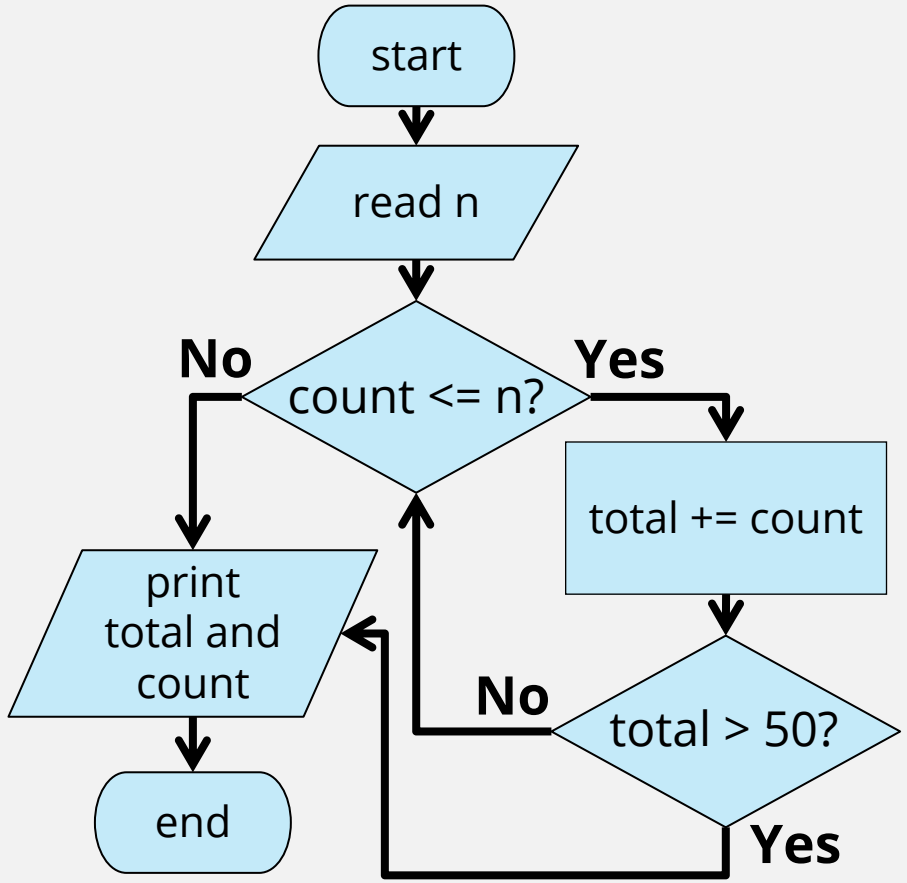
BREAK Statement Flow Chart




```
n = int(input("enter n: "))
total = 0

for count in range(1, n+1):
 total += count
 if total > 50:
  break
print("the total is", total)
print("the count is", count)
```

Condition for break

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Examples

```
n = int(input("enter n: "))
total = 0

for count in range(1, n+1):
    total += count
    if total > 50:
        break
print("the total is", total)
print("the count is", count)
```

```
enter n: 20
the total is 55
the count is 10
```

Count when the loop execution stops

Condition for `break`

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Examples

```
total = 0
while 1==1:
    n = int(input("enter n: "))
    if n <= 0:
        break
    total += n
print("the total is", total)
```

Condition is always `true`

`input` is part of the body of the `while` loop

```
enter n: 5
enter n: 6
enter n: 1
enter n: 0
the total is 12
```

Input is entered at every iteration of the loop

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Try It Yourself

Write a program in Python environment that prints “Hello world!” **x** times, but a maximum of 5 times, even if **x** is greater

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