

Conditional Statements

- A conditional statement is a Boolean expression that, if True, executes a piece of code.

Recap

```
a = 3
a *= 3
print(a)
```

9

Challenge1: Take input a number and tell if it is positive or negative

Quiz

```
n = int(input())
if n > 0:
    print("Positive")
else:
    print("Negative")
```

0

Negative

Take input a number and check if a number is divisible by 5

Quiz

```
n = int(input())
```

```
if n % 5 == 0:
```

```
    print("Divisible")
```

```
else:
```

```
    print("Not divisible")
```

6314020

Divisible

Take input a number and print "yes" if it is divisible by either 5 or 7

Quiz

```
n = int(input())
```

```
if n % 5 == 0 or n % 7 == 0:
```

```
    print("Yes")
```

```
else:
```

```
    print("No")
```

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Yes

```
# Take input a number and print "yes" if it is divisible by 5 and 7
# Learn how to learn: Free, Author (Barbara Oakley) Coursera

n = int(input())

if n % 5 == 0 and n % 7 == 0:
    print("yes")
else:
    print("No")

70
yes
```

```
## Challenge: You are given a task to design algorithm for Traffic Light

color = input()

if color == "red":
    print("Stop")
else:
    if color == "yellow":
        print("Wait wait !!")
    else:
        if color == "green":
            print("Grrom grrom go")
        else:
            print("Invalid color")

green
```

Grrom grrom go

if - elif - else

The if-else statement handles two sides of the same condition: True and False. This works very well if we're working with a problem that only has two outcomes. However, in programming, it isn't always a True or False scenario, and a problem can have multiple outcomes.

Challenge: You are given a task to design algorithm for Traffic Light

```
color = input()
```

```
if color == "red":
    print("Stop")
elif color == "yellow":
    print("Wait wait !!")
elif color == "green":
    print("Grrom grrom go")
else:
    print("Invalid color")
```

green

Grrom grrom go

Fizz Fuzz: Write a program that takes n as input and does the following:

- If n is a multiple of 3 print Fizz
- If n is a multiple of 5 print Fuzz
- If n is multiple of both 5 and 3 then print FizzFuzz

```
n = int(input())
```

```
if n % 3 == 0 and n % 5 == 0:  
    print("FizzFuzz")  
elif n % 5 == 0:  
    print("Fuzz")  
elif n % 3 == 0:  
    print("Fizz")
```

3

Fizz

```
n = int(input())
```

```
if n % 3 == 0:  
    print("Fizz")  
elif n % 5 == 0:  
    print("Fuzz")  
elif n % 3 == 0 and n % 5 == 0:  
    print("FizzFuzz")
```

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Fizz

```
n = int(input())
```

```
if n % 3 == 0 and n % 5 == 0:  
    print("FizzFuzz")  
elif n % 5 == 0:  
    print("Fuzz")  
elif n % 3 == 0:  
    print("Fizz")
```

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FizzFuzz

Take a number user input and check if it is negative, positive or 0

```
n = int(input())
```

```
if n > 0:
    print("Positive")
elif n == 0:
    print("Zero")
else:
    print("Negative")
```

-0

Zero

```
# x = 0
# x == 0
```

```
x = 6
if x < 5 or x > -1:
    x = x - 3
else:
    x = x - 2
print(x)
```

3

```
x = 6
print(x < 5 or x > -1)
```

True

```
if False:
    print("Artificial Intelligence")
elif True:
    print("Machine Learning")
elif True:
    print("Data Science")
else:
    print("Deep Learning")
```

Machine Learning

```
## Take user input marks and print the grade
# A for 90 to 100
# B for 80 to 90
# C for 70 to 80
# D for 60 to 70
# E for less than 60
```

```
# slack: Rahul Janghu
```