

# ELIF 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?

- ELIF statements
- Using IF and IF ELSE statements and the Boolean data type

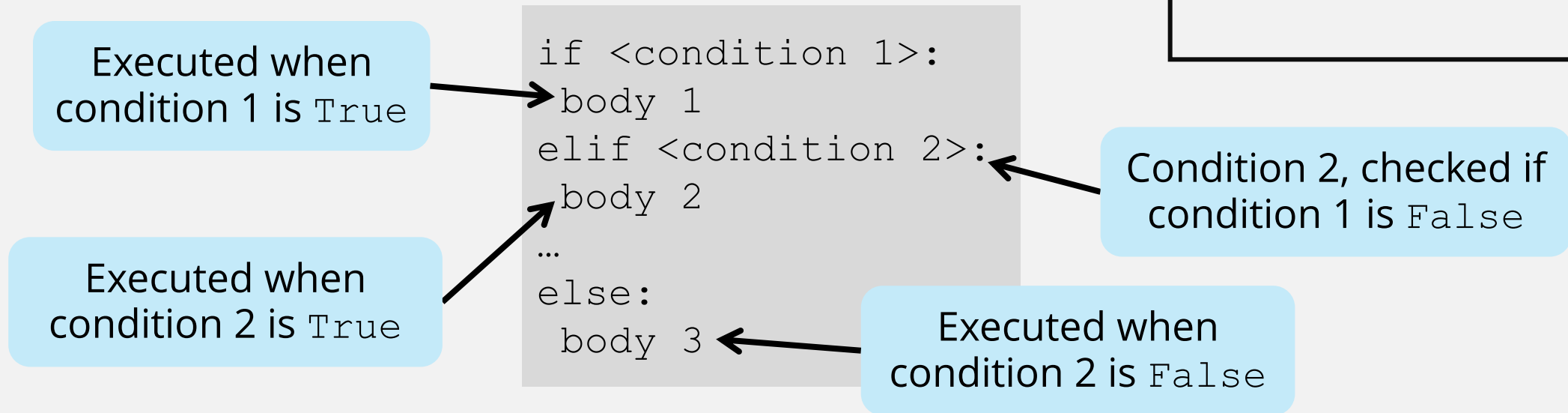
# ELIF Statements

- If a condition is satisfied, take some action.
- Otherwise, check for another condition, if this condition is satisfied, take another action
- If neither condition is satisfied take another action

## Example

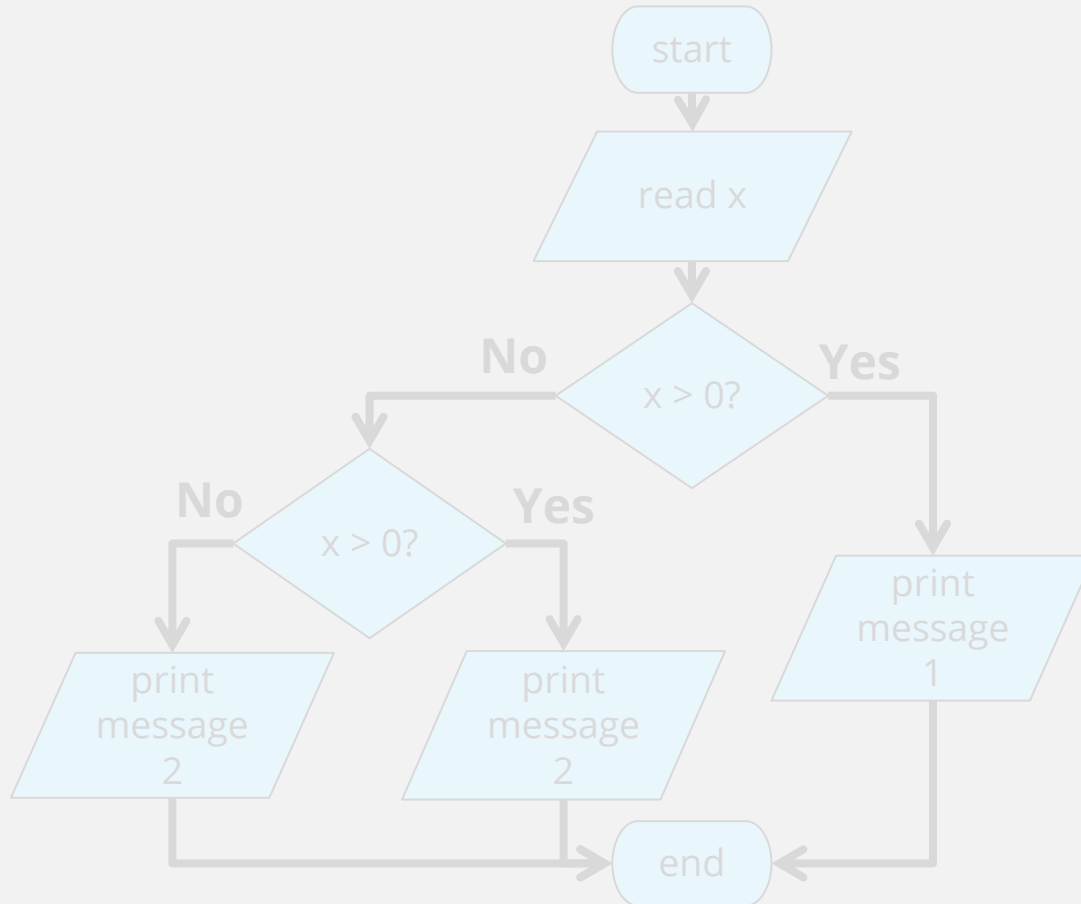
You are at a crossroads, if you turned left you will arrive at town A, if you turn right you will arrive at town B, if you go forwards you will arrive at town C

# ELIF Statements in Python



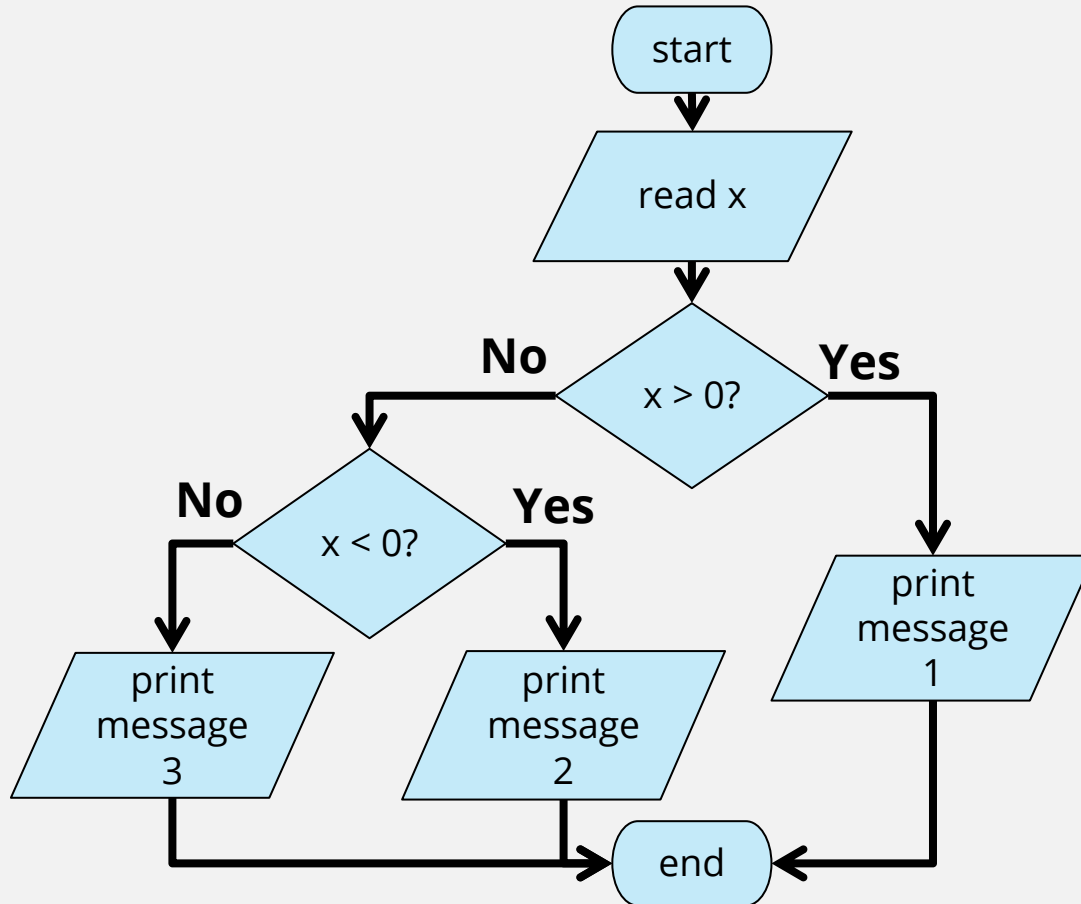
**Note:** there can be more than one ELIF statement between IF and ELSE, if multiple conditions need to be checked

# ELIF Statement Flow Chart



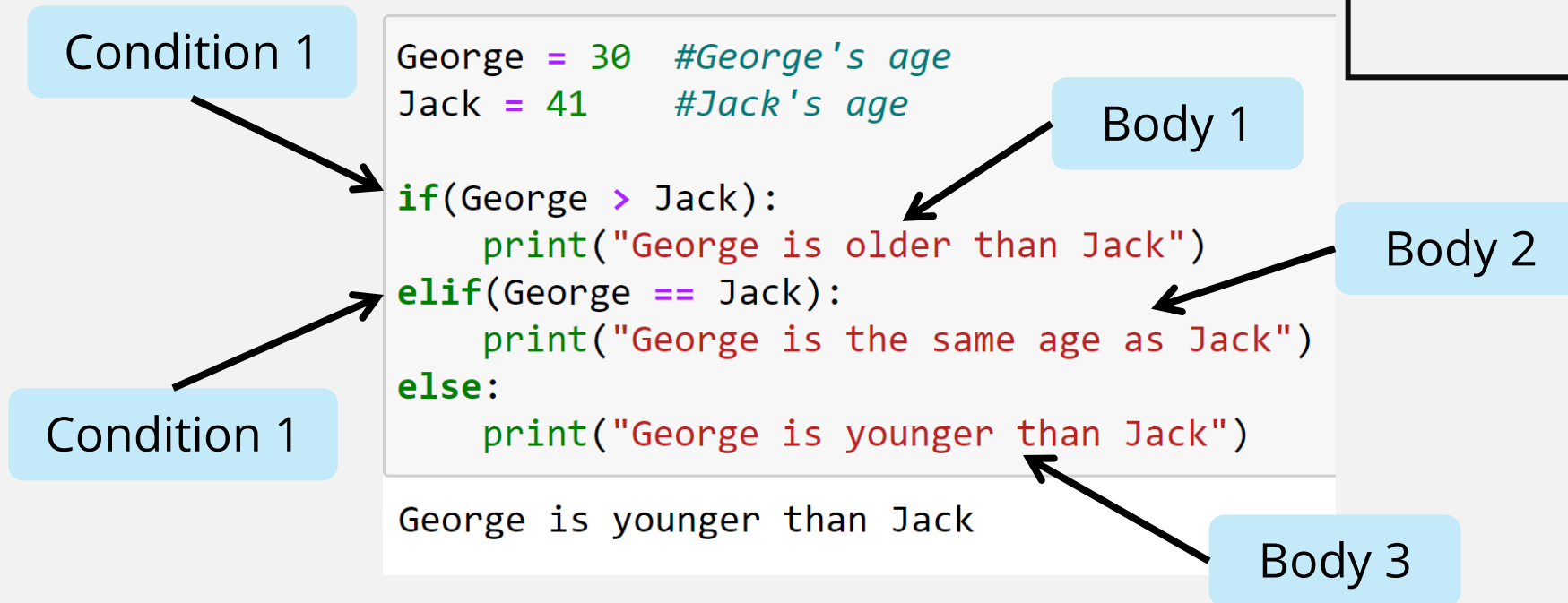
```
x = int(input())
if(x > 0):
    print(x, "is positive")
elif(x < 0):
    print(x, "is negative")
else:
    print(x, "is zero")
```

# ELIF Statement Flow Chart



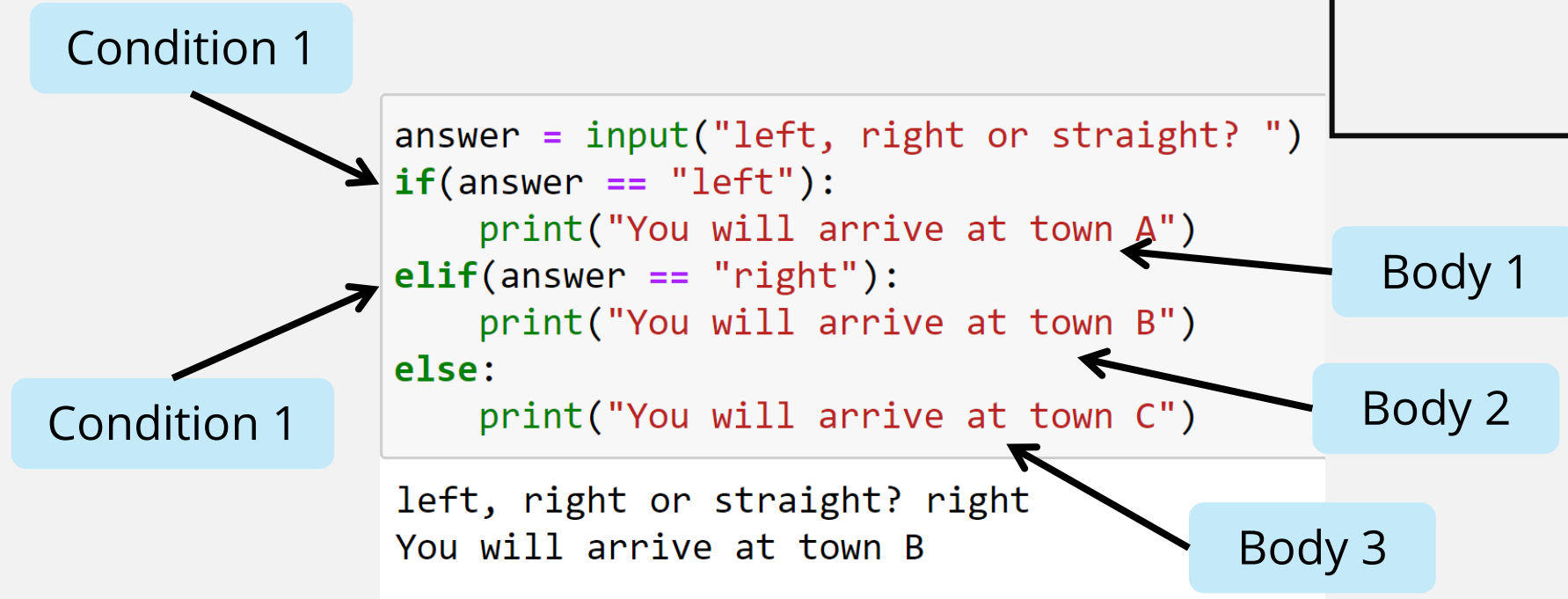
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x = int(input())
if(x > 0):
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    print(x, "is negative")
else:
    print(x, "is zero")
```

# Examples





# Examples



# Common Errors in Python

- Elif statement cannot be used by itself

```
number = int(input("enter a whole number: "))  
elif(number > 0):  
    print("positive number")
```

```
File "C:\Users\danos\AppData\Local\Temp\ipykernel_10136\5054  
52919.py", line 2
```

```
elif(number > 0):
```

```
^
```

```
SyntaxError: invalid syntax
```

Error location

Error type

Error description

# Try It Yourself

Enter and run the following statements in the python environment:

```
x = int(input("enter a whole number: "))
y = 6
z = 15
if(x < y):
    print("your number is smaller than", y)
elif(x > z):
    print("your number is greater than", z)
else:
    print("your number is between", y, "and", z)
```