CONTROL FLOW (IF, ELSE, ELIF)

IF, ELSE, ELIF

- Adds logic to our code
- The **if** statement performs a task **if** the condition is true.
- The **else** statement performs a default when the **if** statement's condition is false.
- **Else** statements cannot exist on their own.
- The **elif** statement (short for else if) works in between **if** and **else** statements.
- **Elif** only performs a task when true, and the **if** statement is false.

DEPENDS ON INDENTATION!

In [3]:

```python
a = 10; b = 25 ; c = 100; d = ("cat", "dog", "bird")
```

In [31]:

```python
if a == 10:
    print("a is true!")

    if b < 40:
        print("b is true!")

        if c > 9:
            print("c is true!")

            if "zebra" in d:
                print("d is true!")

            else:
                print("d is false!")

        else:
            print("c is false!")

    else:
        print("b is false!")
else:
    print("a is false!")
```

```
a is true!
b is true!
c is true!
d is false!
```

In [45]:

```python
num = eval(input("Enter a number: "))

if num >= 3:
```

```
        print("Keep looking!")

    elif d[num] == "cat":
        print("Found a {}".format(d[num]))

    elif d[num] == "dog":
        print("Found a {}".format(d[num]))
    else:
        print("Found a bird!")
```

Enter a number: 2
Found a bird!

In [39]:

```
d
```

Out[39]:

('cat', 'dog', 'bird')

In [51]:

```
total  = [list(range(11)), list(range(11, 21)), list(range(21, 31))]
total
```

Out[51]:

[[0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10],
 [11, 12, 13, 14, 15, 16, 17, 18, 19, 20],
 [21, 22, 23, 24, 25, 26, 27, 28, 29, 30]]

In [56]:

```
v = eval(input("Enter a number: "))

if v in total[0]:
    print(v, "in list one")

elif v in total[1]:
    print(v, "in list two")

elif v in total[2]:
    print(v, "in list three")

else:
    print("not in any list")
```

Enter a number: 40
not in any list