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If

We can provide different outputs for different circumstances in python using if statement.

```
num1 = 13
num2 = 14
if num1 < num2:
    print(f"{num2} is greater than {num1}")
```

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Indentation

Python relies on indentation (whitespace at the beginning of a line) to define scope in the code. Other programming languages often use curly-brackets for this purpose.

Indentation

What do you think the problem in the code below?

```
num1 = 13
num2 = 14
if num1 < num2:
print(f"{num2} is greater than {num2}")
```

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Elif

The elif keyword is pythons way of saying "if the previous condition(s) were not true, then try this condition".

```
num1 = 13
num2 = 14
if num1 < num2:
    print(f"{num2} is greater than {num1}")
elif num1 == num2:
    print(f"{num1} equals to {num2}")
```

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Else

It will be executed when none of the previous conditions were True.

```
num1 = 13
num2 = 14
if num1 < num2:
    print(f"{num2} is greater than {num1}")
elif num1 == num2:
    print(f"{num1} equals to {num2}")
else:
    print(f"{num2} is not bigger than {num1} nor is equal to {num1}")
```

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The pass Statement

if statements cannot be empty. However, if you still want to have it empty the pass statement can be used.

```
num = 41
speedLimit = 35
if num > speedLimit:
    pass
else:
    print("Not above speed limit")
```

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Short Hand If

When there is one statement for if, we are able to put it on the same line as if.

```
num1 = 13
num2 = 14
if num1 < num2: print(f"{num2} is greater than {num1}")
```

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Short Hand If Else

When there is one statement for if and one statement for else, we are able to put if and else at the same line.

```
num1 = 13
num2 = 14
str1 = "{} bigger than {}"
str2 = "{} is not bigger than {}"
print(str1.format(num2,num1))if num1 < num2 else print(str2.format(num2,num1))
```

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Nested If

if statements can be placed inside other if statements, this is called nested if statements.

```
num = 41
speedLimit = 35
if num > speedLimit:
  print("Above speed limit")
  if num > speedLimit+10:
    print("and also over 10 above speed limit!")
  else:
    print("but not over 10 above speed limit.")
```

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