

Python for Beginners – Class 2 Notes

Input

- Receives input from the user – you can **type in your own text** into the shell
- **STRING:** `name = input("What is your name?")`
- **INT:** `age = int(input("What is your age?"))`
- **FLOAT:** `age = float(input("What is your age?"))`

Boolean Expressions - Expressions that evaluates to TRUE/FALSE

- Boolean operators
 - o < (less than)
 - o <= (less than or equal to)
 - o > (greater than)
 - o >= (greater than or equal to)
 - o == (equal comparison)
 - o != (not equal)
- Boolean expressions
 - o Use Boolean operators to compare two values
 - o Examples:
 - `7 > 5` is TRUE
 - `6 == 6` is TRUE
 - `10 < 4` is FALSE
 - `9 >= 10` is FALSE
 - o Remember, you can use **variables** to compare it against a value
 - For example, if you set a variable `number = 10`, the boolean expression `number > 5` is TRUE, since 10 is greater than 5.

IF statements

- One case

```
if (Boolean expression):
    # ...
```
- Two cases

```
if (Boolean expression):
    # blah blah
else:
    # blah blah
```
- More than two cases

```
if (Boolean expression):
    # blah blah
elif (Boolean expression):
```

```
    # blah blah
elif (Boolean expression):
    # blah blah
else:
    # blah blah
```

- Remember to always add a **COLON** after your if/elif/else statement, and **INDENT** the next line that contains the code if the expression is true
- If..elif...elif...else
 - o Python runs the if/elif/else statements from **top to bottom**
 - If **ONE** of the statements is true, it **SKIPS** the rest of the elif's and else
 - o Elif statements are **optional**, but if it exists, it must be **AFTER** the IF statement
 - o Else statement is **optional**, but if it exists, it **MUST** be at the **end**

Example:

```
score = 92
if (score > 90):
    print ("Excellent job!!!!")
elif (score < 70):
    print ("Do better next time!!")
else:
    print ("Nice!")
```

Since the score is set to **92**, the program will output “Excellent job!!!!” because it satisfies the first **if statement**.

If the score was instead set to **80**, the program will output “Nice!” because it does **not** satisfy the **if** OR the **elif** statement, so it will go to the **else statement**.

If the score was set to **50**, the program will output “Do better next time!!” because it does **not** satisfy the **if**, but it satisfies the **ELIF** (since the score is less than 70).