

Our first program: `print('Hello World')`

```
print('Hello world')
```

```
    Hello world
```

Setting variable to string value (text)

```
message = 'Hello world'
print(message)
```

```
message = 'Hello Python world'
print(message)
```

```
    Hello world
    Hello Python world
```

```
message = "Today is Saturday"
print(message)
```

```
    Today is Saturday
```

Single quotes and double quotes can be used to have a quote inside the string

```
print('This is Dorothee"s book')
```

Variables

- lowercase `printHello()` --> camelcase `print_hello()` --> snakecase
- no spaces --> this will break your code
- short and descriptive
- variable name cannot be a python keyword such as `print`

```
name = 'serena killion'
print(name.title())
name = name.upper()
print(name)
print(name.lower())
```

```
    Serena Killion
    SERENA KILLION
    serena killion
```

Concatenation

```
first_name = 'Serena'
last_name = 'Killion'
print(first_name + ' ' + last_name) # concatenation
print(f"{first_name} {last_name}") # format string
```

```
Serena Killion
Serena Killion
```

```
num = '5' # string
print(num + num)
print(f"{num} + {num}")
```

```
55
5 + 5
```

Tabs and new lines

```
print('\tPython') # add tab
```

```
Python
```

```
print('Hello \nPython \nWorld') # new line
```

```
Hello
Python
World
```

```
white_space = "\tPython "
```

```
print(white_space)
```

```
print(len(white_space))
```

```
print(white_space.strip())
```

```
print(white_space.lstrip())
```

```
print(white_space.rstrip())
```

```
Python
9
Python
Python
Python
```

Numbers

```
num = 5
print(5 + 5)
```

```
print(5 - 5)
print(5 * 5)
print(5 / 5)
print(5 ** 5)

# boolean
print(5 < 5) # false
print(5 <= 5) # true
print(5 > 5)
print(5 >= 5)
```

```
10
0
25
1.0
3125
False
True
False
True
```

```
i = 5 # integer
f = 5.0 # float
```

```
# Casting
```

```
print(int(f))
print(i/f) # division operator always returns float
print(i * f) # multiplying by float will result in float
print(f * i)
print(i * i)
```

```
5
1.0
25.0
25.0
25
```

```
# Order of Operations!!!
```

```
x = (5 + 2) * 7
print(x)
x = 5 + 2 * 7
print(x)
```

```
49
19
```

```
month = 'October'
date = 9
year = 2021
```

```
print("Today is " + month + " " + str(date) + "th" + " " + str(year))  
print(f"Today is {month} {date}th {year}")
```

```
Today is October 9th 2021
```

```
Today is October 9th 2021
```

