AMRITA VISHWA VIDYAPEETHAM

Python Statement, Indentation and Comments

Anoop S Babu
Faculty Associate
Dept. of Computer Science & Engineering
bsanoop@am.amrita.edu

Python Statement

- **Instructions written** in the source code **for execution** are called statements.
  - eg: **a = 1** is an *assignment statement.*
  - Conditional statement (**if**)
  - Looping statements (**for**, **while**)

Multi-line Statement

- In Python, the end of a statement is marked by a **newline character**.
  - eg:- a = 1 + 2 + 3 + \
    4 + 5 + 6 + \
    7 + 8 + 9
- Can be extended to one or more lines using parentheses **()**, braces **{}**, square brackets **[]**, semi-colon (**;**), continuation character slash (****).

Multi-line Statement

- eg 2:
```
a = (1 + 2 + 3 +
     4 + 5 + 6 +
     7 + 8 + 9)
```
- eg 3:
```
footballer = ['MESSI',
              'NEYMAR',
             'SUAREZ']
```
- Multiple statements in a single line using semicolons

  eg 4:
```
a = 1; b = 2; c=3
```

Python Indentation

- Indentation refers to the **spaces at the beginning** of a code line.
- A block is a **combination** of all these **statements.**
- Most of the programming languages like C, C++, and Java use braces { } to define a block of code.
- Python **uses indentation** to indicate a block of code.

```
if 5 > 2:
    print("Five is greater than two!")
```

Python Comments

- Comments are **descriptions** that help programmers ***better understand the intent and functionality of the program.***
- **Single-Line Comments in Python**
  - In Python, use the hash symbol **#** to write a single-line comment.

```
# printing a string
print('Hello world')
```

  - Everything that comes after # is ignored.

```
print('Hello world') #printing a string
```

Multi-Line Comments

- **Example 2: Using multiple #**
  - Use the hash(**#**) symbol at the beginning of each line.

```
#This is a long comment
#and it extends
#to multiple lines
```

- **Example 3: Using triple quotes**
  - Either **“””** or **’’’**

```
"""This is also a
perfect example of
multi-line comments"""
```

How to Write Better Comments?

- Use comments to **describe what a function** does and not the specific details on how the function does it.
- Try to **remove** as many **redundant comments** as possible.
- Try writing code that can explain itself, using better function/variable name choice.
- Try to **make** the comments as **short and concise** as possible.