Python Comments

- Comments are lines that exist in computer programs that are ignored by compilers and interpreters.
- Including comments in program makes code more redable for humans as it provides some information or explation about what each part of program is doing.
- In general,it is a good idea to write comments while you are writing or updating a program as it is easy to forget your thought process later on, and comments written later may be less useful in the long term.

In Python, there are two ways to annotate your code.

1. Single-line comments

Single-line comments are created simply by beginning a line with the hash (#) character, and they are automatically terminated by the end of line.

For Example:

```
In [1]: #print Hello, world!! to consol
        print ("Hello, world!!")
```

```
Hello, world!!
```

2. Multi Line Comments

- If we have comments that exends multiple line,one way of doing it is to use hash(#) in the beginning of each line.

```
In [2]: # This is
        # supposed to be
        # multi line comment
```

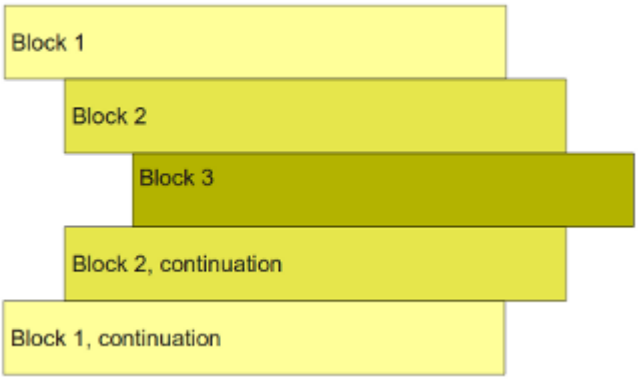
- Another way of doing this is to use triple quotes,either ''' or """.

```
In [3]: """This is also
        supposed to be
        example of
        multi line comment"""
```

```
Out[3]: 'This is also \nsupposed to be\nexample of \nmulti line comment'
```

Python Indentation

- Most of the programming languages like C,C++,Java use braces {} to define a block of code.
- One of the most distinctive features of Python is its use of indentation to mark blocks of code.
- A code block(body of function,loop etc) starts with first unindented line.The amount of indentation is upto you,but it must be consistent throughout that blok.
- Generally four whitespaces are used for indentation and is preferred over tabs.



In [4]:
```
for i in range(10):
    print(i)
print(100)
```

```
0
1
2
3
4
5
6
7
8
9
100
```

Indentation can be ignored in line continuation.But it is a good idea to always indent.It makes code more redable.

In [5]:
```
if True:
    print("Center For Cloud-Computing and Technologies")
    sort = "CCT"
    print("(" + sort +")")
```

```
Center For Cloud-Computing and Technologies
(CCT)
```

In [6]:
```
if True:print("Center For Cloud-Computing and Technologies");sort = "CCT";prin
t("(" + sort +")")
```

```
Center For Cloud-Computing and Technologies
(CCT)
```

Python Statement

Instructions that a Python interpreter can execute are called statements. *Example:*

In [7]:
```
a = 10 #single assignment_statement
```

Multi-Line Statement

In Python,end of a statement is marked by a newline character.But we can make a statement extend over multiple lines with the line continuation character().

In [8]:
```
a = 1 + 2 + 3 + 4 + \
    5 + 6 + 7 + \
    8 + 9 + \
    10
```

In [9]:
```
print (a)
```

```
55
```

Another way is to use paranthesis

In [10]:
```
a = (1 + 2 + 3 + 4 +
     5 + 6 + 7 +
     8 + 9 +
     10)
```

In [11]:
```
print(a)
```

```
55
```

Or we can put multiple statements in a single line using ;

In [12]:
```
a = 2; b = 4; c = 6
```

In [13]:
```
print(a+b+c)
```

```
12
```