Day - 3 Python Class

Built - in Functions of Python

abs() Function

The abs() function returns the absolute value of the specified number.

In [3]:
```
x = abs(-7.25)
print(x)
```

```
7.25
```

In [4]:
```
y = abs(-8)
print(y)
```

```
8
```

In [2]:
```
x = abs(3+5j)
print(x)
```

```
5.830951894845301
```

Bin Function

The bin() function returns the binary version of a specified integer.

The result will always start with the prefix 0b.

In [11]:
```
x = bin(10)
print(x)
```

```
0b1010
```

In [12]:
```
y = bin(36)
print(y)
```

```
0b100100
```

In [16]:
```
z = bin(56)
print(z)
```

```
0b111000
```

Python bytes() Function

The bytes() function returns a bytes object.

It can convert objects into bytes objects, or create empty bytes object of the specified size.

In [17]:
```
x = bytes(4)
print(x)
```

```
b'\x00\x00\x00\x00'
```

In [18]:
```
y = bytes(16)
print(y)
```

```
b'\x00\x00\x00\x00\x00\x00\x00\x00\x00\x00\x00\x00\x00\x00\x00\x00'
```

Python chr() Function

The chr() function returns the character that represents the specified unicode.

In [19]:
```
x = chr(97)
print(x)
```

```
a
```

In [26]:
```
x = chr(98)
print(x)
```

```
b
```

In [21]:
```
x = chr(99)
print(x)
```

```
c
```

Python complex() Function

The complex() function returns a complex number by specifying a real number and an imaginary number.

In [27]:
```
x = complex(3, 5)
print(x)
```

```
(3+5j)
```

In [28]:
```
y = complex(2.5, 3.96)
print(y)
```

```
(2.5+3.96j)
```

In [30]:
```
x = complex('3+5j')
print(x)
```

```
(3+5j)
```

In [31]:
```
x = complex('2')
print(x)
```

```
(2+0j)
```

Python float() Function

The float() function converts the specified value into a floating point number.

In [32]:
```
x = float(3)
print(x)
```

```
3.0
```

In [33]:
```
y = float("3.500")
print(y)
```

```
3.5
```

Python format() Function

The format() function formats a specified value into a specified format.

Syntax format(value, format)

In [36]:
```
x = format(0.5, '%')
print(x)
```

```
50.000000%
```

In [44]:
```
y = format(97, 'c')
print(y)
```

```
a
```

In [45]:
```
z = format(95, 'c')
print(z)
```

```
_
```

In [46]:
```
a = format(255, 'x')
print(a)
```

```
ff
```

In [47]:
```
m = format(25, 'b')
print(m)
```

```
11001
```

In [48]:
```
n = format(25, 'b')
print(n)
```

```
11001
```

int() function of python

The int() function converts the specified value into an integer number.

In [55]:
```
x = int("12")
print(x)
```

```
12
```

str() Function in python

In [59]:
```
a = str("2568")
print(a)
print(type(a))
```

```
2568
<class 'str'>
```

Help function in Python

The Python help function is used to display the documentation of modules, functions, classes, keywords, etc.

In [49]:
```
help(print)
```

```
Help on built-in function print in module builtins:

print(...)
    print(value, ..., sep=' ', end='\n', file=sys.stdout, flush=False)

    Prints the values to a stream, or to sys.stdout by default.
    Optional keyword arguments:
    file:  a file-like object (stream); defaults to the current sys.stdout.
    sep:   string inserted between values, default a space.
    end:   string appended after the last value, default a newline.
    flush: whether to forcibly flush the stream.
```

In [52]:
```
help(str)
```

```
 |  isspace(self, /)
 |      Return True if the string is a whitespace string, False otherwise.
 |
 |      A string is whitespace if all characters in the string are whitespa
ce and there
 |      is at least one character in the string.
 |
 |  istitle(self, /)
 |      Return True if the string is a title-cased string, False otherwise.
 |
 |      In a title-cased string, upper- and title-case characters may only
 |      follow uncased characters and lowercase characters only cased ones.
 |
 |  isupper(self, /)
 |      Return True if the string is an uppercase string, False otherwise.
 |
 |      A string is uppercase if all cased characters in the string are upp
ercase and
 |      there is at least one cased character in the string.
 |
```

input function in python

The input() function allows user input.

In [53]:
```
x = input('Enter your name:')
print('Hello, ' + x)
```

```
Enter your name:swati
Hello, swati
```

In [65]:
```
x = input('Enter your age:')
print('your age is , ' + x)
print(type(x))
```

```
Enter your age:25
your age is , 25
<class 'str'>
```

""" write a program to calulate the percentage of the student in the subjects Maths, Science, social, english and hindi. ask the user to give the input"""

In [69]:
```
x = input("Enter the name of a student")
a = input("enter the marks scored in english")
b = input("enter the marks scored in hindi")
c = input("enter the marks scored in maths")
d = input("enter the marks scored in science")
e = input("enter the marks scored in social")
p = int(a)+int(b)+int(c)+int(d)+int(e)
n = (p/500)*100
print("percent scored by the student", x, "is", n,"%")
```

```
Enter the name of a studentayush
enter the marks scored in english78
enter the marks scored in hindi85
enter the marks scored in maths96
enter the marks scored in science84
enter the marks scored in social74
percent scored by the student ayush is 83.39999999999999 %
```

In [ ]: