

Python Modules

To use different python modules in your program the first step is to use import statement followed by the module name

Built-in Functions : Python provides some built in functions for helping user

eg:len(),abs(),chr(),bin(),bool(),complex(),dict(),dir(),eval(),id(),input(),int(),max(),min(),ord(),pow(),print(),range(),tuple(),list(),

Python Standard library : Python provides some modules by default without the need of installing it. Those modules are incorporated in Python's standard library

Math module

Function	Description
ceil(x)	Returns the smallest integer greater than or equal to x.
fabs(x)	Returns the absolute value of x
floor(x)	Returns the largest integer less than or equal to x
trunc(x)	Returns the truncated integer value of x
exp(x)	Returns e^{**x}
pow(x, y)	Returns x raised to the power y
sqrt(x)	Returns the square root of x
acos(x)	Returns the arc cosine of x
asin(x)	Returns the arc sine of x
atan(x)	Returns the arc tangent of x
atan2(y, x)	Returns $\text{atan}(y / x)$
cos(x)	Returns the cosine of x
sin(x)	Returns the sine of x
tan(x)	Returns the tangent of x
degrees(x)	Converts angle x from radians to degrees
radians(x)	Converts angle x from degrees to radians
pi	Mathematical constant, the ratio of circumference of a circle to its diameter (3.14159...)
e	mathematical constant e (2.71828...)

Random module

To use Random module we need to import it first

```
import random
```

The functions available in random module are

random()	Return random number between 0.0 and 1.0 .Second parameter is not included[0.0,1.0): Import random print(random.random())	Possible o/p 0 .1 .002
randrange(start,stop,step)	Return random number between the start and stop, stop not included.step is also applied. [start,stop) import random print(random.randrange(10,20,3))	10,13,16,19
randint(a,b)	[a,b] import random print(random.randint(10,20))	Any integer between 10,11,12,13,14,15,16,17,18,19,20

TO print a number between 15 and 20 using random() function

```
print(random.random*(20-15) + 15)
```

Statistics module

To use Statistics module we need to import it first

```
import statistics
```

The functions available in statistics module are

mean	import statistics print(statistics.mean([1,2,3]))	2
median	import statistics print(statistics.median([1,2,2,2,3]))	2
mode	import statistics print(statistics.mode([1,2,2,2,3]))	2