

Range

Range is a python in-built function that can be used to generate range/collection in python.

```
my_range = range(5,2,-1)
print(my_range)
```

Output

```
range(5, 2, -1)
```

Since in python collection may have data type, thats why it required to present in any collection data types like list, tuple.

```
my_range = range(5,2,-1)
print(list(my_range))
print(tuple(my_range))
```

Output

```
[5, 4, 3]
(5, 4, 3)
```

Syntax:

range(start, stop/end, step/direction)

Note:

1. for **+ve** direction collection step must be +ve step/direction.
2. for **-ve** direction collection step must be -ve step/direction.
3. for **+ve** direction collection stop/end point must be (required+1).
4. for **-ve** direction collection stop/end point must be (required-1).

Example:

```
my_range = range(1,11)
print(list(my_range))
```

```
my_range = range(1,11,-1)
print(list(my_range))
```

```
my_range = range(-1,-11,-1)
print(list(my_range))
```

```
my_range = range(-1,-11,1)
print(list(my_range))

my_range = range(11)
print(list(my_range))

# Output
[1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
[]
[-1, -2, -3, -4, -5, -6, -7, -8, -9, -10]
[]
[0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
```

Example:

```
my_range = range(2,11,2)
print(list(my_range))

my_range = range(1,10,2)
print(list(my_range))

my_range = range(-2,-11,-2)
print(list(my_range))

my_range = range(-1,-10,-2)
print(list(my_range))

# Output
[2, 4, 6, 8, 10]
[1, 3, 5, 7, 9]
[-2, -4, -6, -8, -10]
[-1, -3, -5, -7, -9]
```

Example:

```
my_range = range(5,2,-1)
print(list(my_range))

my_range = range(-5,-2,1)
print(list(my_range))

my_range = range(5,6,1)
print(list(my_range))

my_range = range(-5,-6,-1)
```

```
print(list(my_range))
```

```
# Output
```

```
[5, 4, 3]
```

```
[-5, -4, -3]
```

```
[5]
```

```
[-5]
```