### Lists

```
snow = [0.3, 0.0, 0.0, 1.2, 3.9, 2.2, 0.8]
# Index
day_1 = snow[0]  # 0.3
day_7 = snow[6]  # 0.8

# Negative index
day_7 = snow[-1]  # 0.8

# Slicing
snow_weekday = snow[0:5]
snow_weekend = snow[5:7]
```

## **List Functions & Methods**

```
film_runtimes = [121, 142, 131, 124]

# Built-in functions
len(film_runtimes)  # Output: 4
max(film_runtimes)  # Output: 142
min(film_runtimes)  # Output: 121

# Built-in methods
film_runtimes.append(152)
# [121, 142, 131, 124, 152]
film_runtimes.insert(3, 138)
# [121, 142, 131, 138, 124, 152]
film_runtimes.remove(142)
# [121, 131, 138, 124, 152]
film_runtimes.pop(0)
# [131, 138, 124, 152]
```

## **Functions**

```
def greetings():
   print('Hello, World!')

greetings()  # Output: Hello, World!
```

### **Parameters**

```
def add(x, y):
    return x + y

print(add(2, 3))  # Output: 5
print(add(21, 56)) # Output: 77
```

# Scope

```
t = 29  # Global scope

def func():
    t = 42  # Local scope
    print(t)

print(t)  # Output: 29
func()  # Output: 42
```

# **Classes & Objects**

```
class Person:
    def __init__(self, name, age):
        self.name = name
        self.age = age

    def say_hi(self):
        print(' My name is {self.name}')

ellie = Person('Ellie', 22)
gabby = Person('Gabby', 23)

ellie.say_hi() # My name is Ellie
```

#### Modules

```
import matplotlib.plotly as plt
import random

print(random.randint(1, 10))

x = [1, 2, 3]
y = [4, 6, 8]

plt.plot(x, y)
plt.show()
```

#### Notes

