Data Analysis with Python

In [1]:
```
#week 01 task
my_friend = {
    "name": "Prnvi",
    "age": 19,
    "city": "Guntur",
}
print("Dictionary:", my_friend,"\n")
```

```
Dictionary: {'name': 'Prnvi', 'age': 19, 'city': 'Guntur'}
```

In [2]:
```
my_friend["Study"] = "Btech"
print("Prnvi:", my_friend)
```

```
Prnvi: {'name': 'Prnvi', 'age': 19, 'city': 'Guntur', 'Study': 'Btech'}
```

In [3]:
```
name = my_friend["name"]
print("Name:", name)
```

```
Name: Prnvi
```

In [4]:
```
my_friend["city"] = "Guntur, India"
print("Dictionary after updating city:", my_friend)
```

```
Dictionary after updating city: {'name': 'Prnvi', 'age': 19, 'city': 'Guntur, India', 'Study': 'Btech'}
```

In [5]:
```
#week 01 task
numbers = [1,2,3,4]
print("List:", numbers)
```

```
List: [1, 2, 3, 4]
```

In [6]:
```
new_number = int(input("Enter a value to add in list: "))
numbers.append(user_input)
print("List after appending the user input value:", my_list)
```

```
Enter a value to add in list: 5
List after appending the user input value: [1, 2, 3, 4, 5]
```

In [7]:
```
value_to_check = int(input("Enter a value to check if it is in the list: "))
if value_to_check in numbers:
    print(f"{value_to_check} is in the list.")
else:
    print(f"{value_to_check} is not in the list.")
```

```
Enter a value to check if it is in the list: 2
2 is in the list.
```

In [9]:
```
old_num = int(input("Enter the value to be updated: "))
new_num = int(input("Enter the new value: "))

if old_num in numbers:
    index = numbers.index(old_num)
    numbers[index] = new_num
    print(f"{old_num} has been updated to {new_num} in the list. Now the list is {numbers}")
else:
    print(f"{old_num} is not in the list.")
```

```
Enter the value to be updated: 2
Enter the new value: 3
2 has been updated to 3 in the list. Now the list is [1, 3, 3, 4, 5]
```

In [10]:
```
value_to_remove = int(input("Enter a value to remove from the list: "))
if value_to_remove in numbers:
    numbers.remove(value_to_remove)
    print(f"{value_to_remove} has been removed from the list. Now the list is {numbers}")
else:
    print(f"{value_to_remove} is not in the list.")
```

```
Enter a value to remove from the list: 3
3 has been removed from the list. Now the list is [1, 3, 4, 5]
```

In [8]:
```
#week 01 task
my_set = {10, 20, 30, 40, 50}
print("Set:", my_set)
```

```
Set: {50, 20, 40, 10, 30}
```

In [9]:
```
my_set.add(60)
print("Set after adding:", my_set)
```

```
Set after adding: {50, 20, 40, 10, 60, 30}
```

In [10]:
```
my_set.remove(30)
print("Set after removing:", my_set)
```

```
Set after removing: {50, 20, 40, 10, 60}
```

In [11]:
```
another_set = {40, 50, 60, 70, 80}
```

In [12]:
```
union_set = my_set.union(another_set)
print("Union of my_set and another_set:", union_set)
```

```
Union of my_set and another_set: {70, 40, 10, 80, 50, 20, 60}
```

In [13]:
```
intersection_set = my_set.intersection(another_set)
print("Intersection of my_set and another_set:", intersection_set)
```

```
Intersection of my_set and another_set: {40, 50, 60}
```

In [14]:
```
difference_set = my_set.difference(another_set)
print("Difference between my_set and another_set:", difference_set)
```

```
Difference between my_set and another_set: {10, 20}
```

In [1]:
```
#week 01 task
my_tuple=(7,18,33,45,93)
print(my_tuple)
```

```
(7, 18, 33, 45, 93)
```

In [5]:
```
no_1 = my_tuple[1]
print("The value at index 1 is:", no_1)
```

```
The value at index 1 is: 18
```

In [11]:
```
new_value = int(input("enter a value to add"))
my_tuple = my_tuple + (new_value,)
print(my_tuple)
```

```
enter a value to add12
(7, 18, 33, 45, 93, 12)
```

In [12]:
```
my_list_tuple=list(my_tuple)
print(my_list_tuple)
```

```
[7, 18, 33, 45, 93, 12]
```

In [14]:
```
delete_value=int(input("enter a value to delete"))
if delete_value in my_list_tuple:
    my_list_tuple.remove(delete_value)
    print(f"Value {delete_value} deleted from the list")
    my_tuple = tuple(my_list_tuple)
    print("Tuple after deleting the value:", new_tuple)
else:
    print(f"Value {delete_value} not found in the tuple")
```

```
enter a value to delete99
Value 99 not found in the tuple
```

In [16]:
```
old_value = int(input("enter value to be updated"))
new_value = int(input("enter value to update"))
if old_value in my_list_tuple:
    index = my_list_tuple.index(old_value)
    my_list_tuple[index] = new_value
    my_tuple = tuple(my_list_tuple)
    print(f"List after updating {old_value} to {new_value}:", my_tuple)
else:
    print(f"{old_value} is not in the list.")
```

```
enter value to be updated33
enter value to update9
List after updating 33 to 9: (7, 18, 9, 45, 93, 12)
```