In [1]:
```
# List Exploration:
```

In [2]:
```
fruits = ["apple", "banana", "cherry"]
print(fruits[1])
```

```
banana
```

In [3]:
```
fruits = ["apple", "banana", "cherry"]
fruits[0] = "kiwi"
```

In [4]:
```
print(fruits)
```

```
['kiwi', 'banana', 'cherry']
```

In [5]:
```
fruits = ["apple", "banana", "cherry"]
fruits.append('orange')
```

In [6]:
```
print(fruits)
```

```
['apple', 'banana', 'cherry', 'orange']
```

In [7]:
```
fruits = ["apple", "banana", "cherry"]
fruits.insert(1, "lemon")
```

In [8]:
```
print(fruits)
```

```
['apple', 'lemon', 'banana', 'cherry']
```

In [9]:
```
fruits = ["apple", "banana", "cherry"]
fruits.remove("banana")
```

In [10]:
```
print(fruits)
```

```
['apple', 'cherry']
```

In [11]:
```
fruits = ["apple", "banana", "cherry"]
print(fruits[-1])
```

```
cherry
```

In [12]:
```
fruits = ["apple", "banana", "cherry", "orange", "kiwi", "melon", "mang
o"]
print(fruits[2:5])
```

```
['cherry', 'orange', 'kiwi']
```

In [13]:
```
fruits = ["apple", "banana", "cherry"]
print(len(fruits))
```

```
3
```

In [ ]:

In [ ]:
```
# Exploring Dictionaries:
```

In [14]:
```
car ={
  "brand": "Ford",
  "model": "Mustang",
  "year": 1964
}
print(car.get("model"))
```

```
Mustang
```

In [15]:
```
car ={
  "brand": "Ford",
  "model": "Mustang",
  "year": 1964
}
car['year'] = 2020
```

In [16]:
```
print(car)
```

```
{'brand': 'Ford', 'model': 'Mustang', 'year': 2020}
```

In [17]:
```
car ={
  "brand": "Ford",
  "model": "Mustang",
  "year": 1964
}
car['color']='red'
```

In [18]:
```
print(car)
```

```
{'brand': 'Ford', 'model': 'Mustang', 'year': 1964, 'color': 'red'}
```

In [19]:
```
car =   {
  "brand": "Ford",
  "model": "Mustang",
  "year": 1964
}
car.pop('model')
```

Out[19]:
```
'Mustang'
```

In [20]:
```
car =   {
  "brand": "Ford",
  "model": "Mustang",
  "year": 1964
}
car.clear()
```

In [21]:
```
print(car)
```

```
{}
```

In [ ]:

In [22]:
```
# Exploring Sets:
```

In [23]:
```
fruits = {"apple", "banana", "cherry"}
if "apple" in fruits:
    print("Yes, apple is a fruit!")
```

```
Yes, apple is a fruit!
```

In [24]:
```
fruits = {"apple", "banana", "cherry"}
fruits.add('orange')
```

In [25]:
```
print(fruits)
```

```
{'cherry', 'banana', 'orange', 'apple'}
```

In [26]:
```
fruits = {"apple", "banana", "cherry"}
more_fruits = ["orange", "mango", "grapes"]
fruits.update(more_fruits)
```

In [27]:
```
print(fruits)
```

```
{'apple', 'grapes', 'banana', 'mango', 'cherry', 'orange'}
```

In [28]:
```
fruits = {"apple", "banana", "cherry"}
fruits.remove('banana')
```

In [29]:
```
print(fruits)
```

```
{'cherry', 'apple'}
```

In [ ]:
```

```

In [ ]:
```
#Exploring Tuple:
```

In [30]:
```
fruits = {"apple", "banana", "cherry"}
```

```
fruits.discard('banana')
```

In [31]:
```
print(fruits)
```

```
{'cherry', 'apple'}
```

In [32]:
```
fruits = ("apple", "banana", "cherry")
print(
fruits[0]
)
```

```
apple
```

In [33]:
```
fruits = ("apple", "banana", "cherry")
print(
len(fruits)
)
```

```
3
```

In [34]:
```
fruits = ("apple", "banana", "cherry")
print(fruits[-1])
```

```
cherry
```

In [35]:
```
fruits = ("apple", "banana", "cherry", "orange", "kiwi", "melon", "mang
o")
print(fruits[2:5])
```

```
('cherry', 'orange', 'kiwi')
```

In [ ]:
```

```

In [36]:
```
# Exploring String:
```

In [37]:
```
x = "Hello World"
print(len(x))
```

```
11
```

In [39]:
```
txt = "Hello World"
x = txt[0]
print(x)
```

```
H
```

In [41]:
```
txt = "Hello World"
x = txt[2:5]
print(x)
```

```
llo
```

In [42]:
```
txt = " Hello World "
x = txt.strip()
print(x)
```

```
Hello World
```

In [44]:
```
txt = "Hello World"
txt = txt.upper()
print(txt)
```

```
HELLO WORLD
```

In [45]:
```
txt = "Hello World"
txt = txt.lower()
print(txt)
```

```
hello world
```

In [47]:
```
txt = "Hello World"
txt = txt.replace("H", "J")
print(txt)
```

```
Jello World
```

In [48]:
```
age = 36
txt = "My name is John, and I am {}"
print(txt.format(age))
```

```
My name is John, and I am 36
```

In [ ]:
```

```