

Asssignment : 2

1. Integer (int)

The int data type represents whole numbers.

```
num = 10  
  
help(int)  
  
print(num.bit_length())  
  
print(num.to_bytes(2, byteorder='big'))
```

2. Float (float)

```
num = 3.14  
  
help(float)  
  
print(num.is_integer())  
  
print(num.as_integer_ratio())
```

3. Complex (complex)

```
num = 3 + 4j  
  
help(complex)  
  
print(num.real)  
  
print(num.imag)  
  
print(num.conjugate())
```

4. List (list)

The list data type is an ordered, mutable collection of items.

```
my_list = [1, 2, 3, 4, 5]  
  
help(list)  
  
my_list.append(6)  
  
my_list.extend([7, 8])  
  
my_list.remove(3) print(my_list.index(4))  
  
print(my_list.count(2))
```

5. Tuple (tuple)

The tuple data type is an ordered, immutable collection of items.

```
my_tuple = (1, 2, 3, 4, 5)
```

```
help(tuple)
```

```
print(my_tuple.index(3))
```

```
print(my_tuple.count(2))
```

6. String (str)

The str data type represents a sequence of characters.

```
my_string = "Hello, World!"
```

```
help(str)
```

```
print(my_string.upper())
```

```
print(my_string.lower())
```

```
print(my_string.replace("World", "Python"))
```

```
print(my_string.split(","))
```

```
print(my_string.find("World"))
```

7. Set (set)

The set data type is an unordered collection of unique elements.

```
my_set = {1, 2, 3, 4, 5}
```

```
help(set)
```

```
my_set.add(6)
```

```
my_set.remove(3)
```

```
print(my_set.union({6, 7, 8}))
```

```
print(my_set.intersection({4, 5, 6}))
```

8. Dictionary (dict)

The dict data type is an unordered collection of key-value pairs.

```
my_dict = {"name": "Alice", "age": 25, "city": "New York"}
```

```
help(dict)

# Common methods

print(my_dict.keys())

print(my_dict.values())

print(my_dict.items()) my_dict.update({"age": 26})

print(my_dict.get("name"))
```

9. Boolean (bool)

The bool data type represents True or False.

```
flag = True

# Using help() to see methods

help(bool)

print(flag.__bool__())

print(flag.__and__(False))
```