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Assignment No - 2

Exploring Python Data Types and Their Methods

Introduction

Python provides various built-in data types to store and manipulate data. These include numerical types such as int, float, and complex; sequence types like list, tuple, and str; and collection types such as set and dict. The bool type represents Boolean values. Each data type has several methods that allow operations to be performed on them.

Understanding Python Data Types with Methods

Integer (int)

```
x = 10
print(x.bit_length())
print(x.to_bytes(2, byteorder='big'))
```

Floating-Point (float)

```
y = 10.5
print(y.is_integer())
print(y.as_integer_ratio())
```

Complex Number (complex)

```
z = 3 + 4j
print(z.real)
print(z.imag)
```

List (list)

```
lst = [1, 2, 3, 4]
lst.append(5)
lst.reverse()
print(lst)
```

Tuple (tuple)

```
my_tuple = (1, 2, 3, 4, 2)
print(my_tuple.count(2))
print(my_tuple.index(3))
```

String (str)

```
text = "Python Programming"
print(text.upper())
print(text.replace("Python", "Advanced"))
```

Set (set)

```
my_set = {1, 2, 3, 4}
my_set.add(5)
print(my_set.pop())
```

Dictionary (dict)

```
my_dict = {"name": "John", "age": 25}
print(my_dict.keys())
print(my_dict.values())
```

```
print(bool(1))
print(bool(0))
```

THANKYOU