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Assignment No - 2

Methods of Python Datatypes (Objects) - int, float, complex, list, tuple, str, set, dict, bool

Introduction

Python provides various built-in data types, each with its own set of methods to manipulate and perform operations on data. In this assignment, we will explore different data types and their respective methods.

Methods of Different Python Data Types

1. Integer (int)

```
num = 25
print(num.bit_length())
print(num.to_bytes(2, 'big'))
```

2. Floating-Point Number (float)

```
f_num = 3.14159
print(f_num.is_integer())
print(round(f_num, 2))
```

3. Complex Number (complex)

```
c_num = complex(4, 5)
print(c_num.real)
print(c_num.imag)
```

4. List (list)

```
my_list = [1, 2, 3, 4, 5]
my_list.append(6)
print(my_list.count(2))
print(my_list.pop())
```

5. Tuple (tuple)

```
my_tuple = (10, 20, 30, 40)
print(my_tuple.index(30))
print(my_tuple.count(20))
```

6. String (str)

```
text = "Hello Python"
print(text.upper())
print(text.replace("Python", "World"))
```

7. Set (set)

```
my_set = {1, 2, 3, 4, 5}
my_set.add(6)
my_set.discard(2)
print(my_set)
```

8. Dictionary (dict)

```
my_dict = {"name": "Alice", "age": 25}
print(my_dict.keys())
print(my_dict.get("age"))
my_dict.update({"city": "New York"})
print(my_dict)
```

9. Boolean (bool)

```
is_valid = True
print(is_valid.bit_length())
print(is_valid.real)
```

Conclusion

Python provides a wide range of methods for different data types to efficiently manipulate and process data. Understanding these methods helps in writing better and more efficient code.

THANKYOU