MIT World Peace University
Python Programming

Assignment 1

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Contents

1 Problem Statement

Introduction to basic Python Commands.

2 Aim

To learn the basics of the python programming language and understand fundamental syntax and semantics of Python Programming.

3 Objectives

1. To learn the basics of python programming language.
2. To learn the variable declaration,user input and output of the programming language.

4 Theory

4.1 *Introduction to Python*

Python is a high-level, interpreted programming language that was first released in 1991. It is known for its simple and easy-to-read syntax, making it a popular choice for beginners and experienced developers alike. Python can be used for a wide range of tasks, including web development, scientific computing, data analysis, artificial intelligence, and more. It is an open-source language with a large and supportive community, and has a vast library of modules and tools available to users.

4.2 *Basic Commands in Python*

1. Print: display a message on the screen. For example, print ("Hello World ").
2. Variable assignment: assign a value to a variable. For example, x = 5.
3. Arithmetic operations: perform mathematical operations such as addition, subtraction, multiplication, and division. For example, x + 5, x - 5, x * 5, and x / 5
4. Conditional statements: make decisions based on conditions. For example, if x ¿ 5: print ("x is greater than 5").
5. Loops: repeat a block of code multiple times. For example, for i in range (5): print (i).
6. Importing modules: use pre-existing code from other sources. For example, import math to use mathematical functions.

4.3 *Standard Data Types*

The data stored in memory can be of many types. Python has various standard data types that are used to define the operations possible on them and the storage method for each of them.
Python has 5 standard data types:

- Numbers
- String
- List
- Tuple
- Dictionary

5 Platform

Python
Mac OS 64-bit
Visual Studio Code

6 Code Input/Output

```
    print("Hello world!")
```

Listing 1: print function input

```
    Hello world!
```

```
# declare variable
a = 3
print(a)
print(type(a))
b = 3.5
print(type(b))
print(b)
c = "Hello"
print(c)
print(type(c))
```

Listing 2: declaring variable input

```
3
<class 'int'>
<class 'float'>
3.5
Hello
<class 'str'>
```

```
a = 5
b = 6
print(a + b)
```

Listing 3: performing arithmetic operation input

```
11
```

```
a = input("Enter First Name:")
b = input("Enter Last Name:")
print(a + b)
```

```
naman soni
```

```
x = int(input("Enter the first number:"))
y = int(input("Enter the second number:"))
z = x + y
print("Sum is:", z)
```

```
Sum is: 66
```

```
x = float(input("Enter the first number:"))
y = float(input("Enter the second number:"))
z = x + y
print("Sum is:", z)
```

```
Sum is: 110.6943
```

```
a = 45
b = 65
if (a == b):
    print("equal")
else:
    print("not equal")
```

```
not equal
```

```
my_list = [12, 13, 56, 43]
print(my_list)
```

```
[12, 13, 56, 43]
```