

Python Assignment - 1

Section: Introduction to python syntax

Points covered:

- a. Print
- b. Variables (bool, int, float)
- c. Other variables (string, list)
- d. Selecting slicing list
- e. Working with strings
- f. Mathematics
- g. Factorial
- h. Loops: For, While
- i. If else
- j. Functions

Group 1:

1. Write a program to print "Hello world".
2. Write a program to use variables to store the details of a person and print them with datatype as:
 - a. Name: string
 - b. Age: int
 - c. Salary: float
3. Write a program to take the details of a person as input from the user and print it with datatype as:
 - a. Name: string
 - b. Age: int
 - c. Salary: float
4. Write a program to create a list of 10 integers to perform the following and print:
 - a. Add an integer to the list
 - b. Add another list of integers to existing list
 - c. Use Append() to add an integer to the list
 - d. The length of the list
 - e. The 2nd element in the list
 - f. First 2 integers in the list
 - g. Last 5 integers
 - h. From 4th to 7th integer in the list
 - i. Last 2 integers using negative indexing
 - j. Alternate integers in the list
 - k. List in the descending order
5. Write a program to take a list of 5 strings as input from the user and print the list using For loop.
6. Write a program to take a list of 5 integers as input from the user and print the list using While loop.
7. Write a program to take 2 numbers from the user and perform the following and print as

(eg: Division: Answer):

- a. Divide the numbers
 - b. Multiply the numbers
 - c. Raise one number to the power of the other
 - d. Calculate remainder
 - e. Calculate factorial of both numbers
8. Write a program to take a number as input from the user and print whether it is even or odd.
 9. Write a program to calculate the area of circle. Take the input from user. Define a function AreaOfCircle() and use it.

Group 2:

1. Write a program to calculate the area of Circle, Rectangle and Triangle.
2. Write a program to calculate the area of Circle, Rectangle and Triangle by taking the user input as:
 - a. Display a menu with Circle, Rectangle and Triangle.
 - b. Ask the user to choose the option from the above menu.
 - c. Display the area corresponding to the choice.
 - d. Ask the user if it wants to calculate area of any other shape or stop.
 - e. Perform according to the input by the user.
3. Write a program to print the Fibonacci series.
4. Write a program to print the below patterns:

a)

```
*****
****
***
**
*
```

b)

```
*
**
***
****
*****
```

c)

```
*
**
***
```
