SHAIMA.M.S

Weekly Report 6

DATE	TOPIC	TASK
10/06/2024 (Monday)	PYTHON **TUPLE** • Create tuple • Display items • Access items using positional value, Negative indexing,& within a range. • Convert to list • Iterate tuple • Check the item present in the tuple • Len() function • Concatenation **SET** • Create a set • Display items • Iterate set • Check the item present in the set. • Add() function • Update() • Len() • Remove() • Discard() • Pop() • Clear() • Union() operation	Classwork: 1. Python program to create a tuple. 2. Display items in tuple 3. Display the first item in the tuple using positional value. 4. Display the last item using negative indexing. 5. Display the items within a range. 6. Check "apple" is present in the tuple. 7. Find the length of the tuple 8. Convert the tuple into list, change the fourth element to "papaya", & then convert back to tuple. 9. Iterate the tuple using for loop. 10. Program to concatenate two tuples. --- 11. Python program to create a set. 12. display items in the set. 13. iterate the set. 14. Check "apple" is present in the set. 15. Add the item "orange" to the set. 16. Update the set. 17. Find the length of the set. 18. Remove "apple" from the set. 19. Discard the item "kiwi" from the set. 20. Delete the first item using pop(). 21. Clear the set. 22. Display all elements in two sets using union operation. Task: 1. How do you create a tuple with the elements "red", "green", and "blue"? 2. How do you access the first element in the tuple colors? 3. How do you find the index of "green" in the tuple colors? 4. How do you check if "blue" is in the tuple colors?

		5. How do you create a new tuple that combines colors and another tuple ("yellow", "purple")? 6. How do you create a set with the elements "cat", "dog", and "bird"? 7. How do you add "fish" to the set animals? 8. How do you remove "dog" from the set animals? 9. How do you check if "cat" is in the set animals? 10. How do you find the intersection of sets animals and another set {"bird", "fish", "rabbit"}?
11/06/2024 (Tuesday)	No Class	NA
12/06/2024 (Wednesday)	Python **Dictionary** • Create dictionary • Access Items • Access items using get method • Keys and Values • Display the keys and values • Check the keys and values • Change the values • Adding an item • Len(): Length of the dictionary • Remove items using Pop() Popitem() • Delete an item using del keyword. • Copy the dictionary using Copy() method • Clear the dictionary using clear() method.	Classwork: 1. Create a dictionary called person with name age and place 2. Access items in the dictionary 3. Access item using get() method 4. Change the value of name to "priya". 5. Display the Keys in the dictionary-Person. 6. Display the values in the dictionary -Person. 7. Display the keys and Values in the dictionary -Person 8. Check the key "name" is present in the dictionary. 9. Find the length of the dictionary 10. Add an item to the dictionary 11. Check the values present in the dictionary. 12. Remove the item "Age" from the dictionary 13. Remove the last inserted item from the dictionary 14. Copy the dictionary Person to Person2 15. Delete an item from the dictionary 16. Clear the dictionary 17. Display the text "hello world" using a function 18. Create a function with parameter and arguments.

	Function • Define a function • Calling a function • Function with parameter and argument. • Arbitrary Arguments for passing multiple arguments.	19. Create a function with multiple parameter and arguments 20. Function using arbitrary arguments (*args) <u>Task:</u> 1. How do you create a dictionary with keys "name", "age", and "city", and corresponding values "Alice", 25, and "New York"? 2. How do you access the value associated with the key "name" in the dictionary person? 3. How do you add a new key-value pair "job": "Engineer" to the dictionary person? 4. How do you remove the key "age" and its value from the dictionary person? 5. How do you get a list of all the keys in the dictionary person?
13/06/2024 (Thursday)	PYTHON **Function** • Keyword Arguments • Arbitrary Keyword Arguments. (**kwargs) • Function with default Argument. • Function with return value. • Local variable and global variable. • Functiion within a function. **Conditional Statements** • If • If else • elif • Short hand If • Short hand If else	<u>Class wok:</u> 1. Python program demonstrating Function with keyword arguments. 2. Functions with arbitrary keyword argument. 3. Function with default argument. 4. Function with list as argument. 5. Function with return value 6. Function within a function. 7. Program to compare two numbers using conditional statement. 8. Program to check the greatest number using shorthand if. 9. Program to compare two numbers and if the first number is greatest display "True" else display "false" using short hand if else. <u>Task:</u> NA

14/06/2024 (Friday)	Python • Comparison operators == != < > >= <= • Logical operators And or • Nested if **Loop** • While loop • For loop -Iteration of List. -Looping through a string -range() function	Class work: 1. Python program to find the greatest number from the given three numbers. 2. Program to display "true" if a is greater than b or a is equal to c. 3. Program demonstrating nested if statement. 4. Program to display numbers from 5 to 50 with the interval of 5 using while loop. 5. Program to display numbers from 2 to 10 with the interval of 2 using while loop. If the number is 8 then exit from the loop. 6. Program to display numbers from 1 to 10 using while loop. skip number 5. 7. Program to display the list items using for loop. 8. Program to iterate a string. 9. Program to display the list items using for loop , if the item is "banana" then exit the loop. 10. Program to display the list items except "banana" using for loop. 11. Program to display the numbers from 0 to 9 using range() function. 12. Program to display the numbers from 2 to 49 using range() function. 13. Program to display the numbers from 0 to 19 with the interval of 2 using range() function. 14. Program to display the numbers from 0 to 5 using range() function , if the number is 3 then exit from the loop . Task: 1. Write a program to check if a given number is even or odd. 2. Write a program to check if a given number is positive, negative, or zero. 3. Write a program to classify a grade based on the score: A: 90-100 B: 80-89 C: 70-79 D: 60-69 F: Below 60 4. Write a program to find the largest of three numbers.

		5. Write a program to check if a given letter is a vowel or a consonant.
		6. Write a function `add_numbers(a, b)` that returns the sum of two numbers.
		7. Write a function `square_number(n)` that returns the square of a number.
		8. Write a function `is_even(n)` that returns True if the number is even, and False otherwise.
		9. Write a function `circle_area(radius)` that returns the area of a circle given its radius.
		10. Write a function `max_of_three(a, b, c)` that returns the largest of three numbers.
		11. Write a program to print numbers from 1 to 10 using a loop.
		12. Write a program to find the sum of the first N natural numbers using a loop.
		13. Write a program to print the multiplication table of a given number.
		14. Write a program to count down from a given number to 0.
		15. Write a program to print all even numbers between 1 and 20 using a loop.
		16. Design a Python program to print the following right-angle triangle pattern with digits.
		
		1
		22
		333
		4444
		55555
		
		   17. Design a Python program to print the following pyramid pattern with stars.
		    *
		   ***
		  *****
		 *******
		*********
		   18. Design a Python program to print the following inverted right-angle triangle pattern with stars.
		*****
		****
		***
		**
		*

		19. Design a Python program to print the following diamond pattern with stars.
| | | ```
    *
   ***
  *****
 *******
*********
 *******
  *****
   ***
    *
``` |
| | | 20. Design a Python program to print the following Floyd's triangle pattern with numbers. |
| | | ```
1
 2 3
 4 5 6
 7 8 9 10
 11 12 13 14 15
``` |