

Program - 8

8. #WAP to create variable & print its value & data type

```
name = input("Enter your name: ")
```

```
name_length = len(name) + 1
```

```
print("The no. of characters:", name_length)
```

```
Output: Enter your name: Riddhi
```

```
Riddhi
```

```
Output: The no. of characters: 6
```

```
6
```

```
Output: Enter your name: Riddhi
```

```
Riddhi
```

```
Output: The no. of characters: 6
```

```
6
```

Program - 9

q) ~~WAP~~ to print all arithmetic operation using 2 given integers.

$$x = 10$$

$$y = 5$$

```
print ('x+y is', x+y)
print ('x-y is', x-y)
print ('x/y is', x/y)
print ('x*y is', x*y)
print ('x**y is', x**y)
print ('x%y is', x%y)
```

OUTPUT :-

$x+y$ is 15

$x-y$ is 5

x/y is 2.0

$x*y$ is 50

$x^{**}y$ is 100000

$x \% y$ is 0

Program - 10

10. #WAP to calculate area of circle.

$\gamma = 4$

pie = 3.14

print('Area of circle is', $\gamma * \gamma * pie$)

OUTPUT:-

Area of circle is 50.24

Program - 11

- TUTORIAL

11. //Read your name from user & print no. of characters of name

name = input("Enter your name:")
print(name)

print(f"The no. of characters : {len(name)}")

OUTPUT:-

Program - 12

12. #WAP to show single line comment & multi line comment

This is a single-line comment

~~project~~
" " " Riddhi

Dilipkumar

Patel " " "

OUTPUT :-

Program - 13

13. #WAP to show single line string & multi line string

print('This is a single line string')

print(" " " Multi
Line " " ")

OUTPUT :-

This is a single line string

Multi
Line

Program - 1

134. # WAP to print odd or even numbers.

```
number = int(input("Enter a number:"))
print(number)
if number % 2 == 0:
    print('The no. is even')
else:
    print('The no. is odd')
```

OUTPUT:-

Enter a number : 5

The no. is odd

Program - 15

NO. DATE.
PAGE NO.

15. #WAP to show day name as per day number

```
day = int(input("Enter day no. (1-7):"))
```

```
days = {
```

```
    1: "Mon"
```

```
    2:
```

```
    3:
```

```
    4:
```

```
    5:
```

```
    6:
```

```
    7:
```

```
    3
```

```
day = days.get(day_number, "invalid day number")
```

```
print("Day name:", day)
```

OUTPUT :-

```
Enter day number (1-7): 3  
Wednes
```

Program - 16

16. #WAP to show grade of stds. using match case

```
marks = int(input("Enter your marks:"))
```

match marks:

case marks if marks >= 90;

grade = "A"

case marks if marks >= 80;

grade = "B"

case marks if marks >= 70;

grade = "C"

case marks if marks >= 60;

grade = "D"

case marks if marks >= 50;

grade = "E"

case marks if marks < 50;

grade = "F"

case :

grade = "Invalid Marks"

```
print("Your grade is:", grade)
```

OUTPUT:-

Enter your marks: 95
Your grade is: A

Program - 17

17. #WAP to print add of 1st 10 no. using while loop.

i = 1

sum = 0

while i <= 10;

 sum += i

 i += 1

print("The sum of the 1st 10 nos. is : ", sum)

OUTPUT :-

The sum of the 1st 10 no. is : 55

Program - 18

18. #WAP to print Fibonacci series using while loop.

a, b = 0, 1

n = int(input("How many terms ? "))

count = 0

while count < n :

 print(a, end = " ")

 a, b = b, a + b

 count += 1

OUTPUT :-

How many terms ? 5

0 1 1 2 3

Program - 19

19. #WAP to print count of specific character from given string.

```
text = input("Enter a string:")
```

```
char = input("Enter the character to count:")
```

```
print(text.count(char))
```

OUTPUT :-

Enter a string : Hello

Enter the character to count : l

3

Program - 20

20. #WAP to print count of words from given paragraph.

```
paragraph = input("Enter a paragraph:")
```

```
print(len(paragraph.split()))
```

OUTPUT :-

Enter a paragraph : My name is Riddhi

4

Program - 21

21. # Find the largest & smallest elements in a list

tuple = (1, 4, 3, 6)

smallest = min(tuple)

largest = max(tuple)

```
print("smallest element:", smallest)
print("largest element:", largest)
```

OUTPUT:-

Smallest element: 1

Largest element: 6

Program - 22

22. # Reverse a list without using built-in functions

a = [1, 2, 3, 4]

a.reverse()

print(a)

OUTPUT:-

4 3 2 1

Program - 23

23. # Count occurrences of an element in a list

cl = [1, 2, 3, 4, 2, 2]

c = cl.count(2)

print(c)

OUTPUT:-

3

Program - 24

24. #List comprehension to create squares of numbers.

```
numbers = [1, 2, 3, 4]
squares = [x ** 2 for x in numbers]
print("squares : ", squares)
```

OUTPUT:-

Squares : [1, 4, 9, 16]

Program - 25

25. #Find the common elements between 2 sets

```
set1 = {1, 2, 3, 4, 5}
set2 = {1, 2, 3, 7, 8}
common = set1 & set2
print("common elements : ", common)
```

OUTPUT:-

common elements : {1, 2, 3}

Program - 26

26. #Remove duplicates from a list using a set

```
list1 = [1, 2, 2, 3, 4, 4, 5]
unique_list = list1(set(list1))
print(unique_list)
```

OUTPUT:-

[1, 2, 3, 4, 5]

Program - 27

27. # Find the difference between 2 sets.

```
set1 = {1, 2, 3, 4, 5}
```

```
set2 = {4, 5, 6, 7}
```

```
diff = set1 - set2
```

```
print(diff)
```

OUTPUT :-

{1, 2, 3}

Program - 28

28. # Count unique elements in a list using a set.

```
my_list = [1, 2, 3, 4, 4, 5]
```

```
unique = set(my_list)
```

```
count = len(unique)
```

```
print("No. of unique elements:", unique)
```

OUTPUT:-

No. of unique elements : 5

Program - 29

29. # Find the index of an element in a tuple.

```
tuple = (10, 20, 30, 50)
```

```
index = tuple.index(30)
```

```
print("Index of 30:", index)
```

OUTPUT:-

Index of 30: 2

Program - 30

30. #Check if an element exists in a tuple.

tuple = (1, 2, 3, 4, 5)	tuple = (1, 2, 3, 4, 5)
a = 3	print(3 in tuple)
if a in tuple:	
print("Exists")	
else:	
print("No exists")	

OUTPUT :-

Exists

Program - 31

31. #Convert a list to a tuple & vice versa

list = [1, 2, 3]	tuple = (1, 2, 3)
tuples = tuple(list)	lists = list(tuple)
print(tuples)	print(lists)

OUTPUT :-

(1, 2, 3)

OUTPUT :-

[1, 2, 3]

Program - 32

32. #Sort a tuple of tuples by the second element

tuples = ((1, 3), (2, 2), (4, 1))	x = x[1]
sorted_t = sorted(tuples, key = lambda	x: x[1])
sorted_t = tuple(sorted_t)	
print(sorted_t)	

OUTPUT :- ((4, 1), (2, 2), (1, 3))

Program - 33

33. # Count occurrences of an element in a tuple.

```
a = (1, 2, 3, 4, 5, 4, 3, 2, 1)  
print(a.count(5))
```

OUTPUT:-

1

Program - 34

34. # Check if string is a palindrome.

```
my_string = "riddhi"  
if my_string == my_string[::-1]:  
    print("Is palindrome")  
else:
```

```
    print("Not palindrome")
```

OUTPUT:-

Not palindrome

Program - 35

35. # Count the frequency of characters in a string

```
my = "hello"  
for char in sorted(my):  
    print(f"Character {char} and its count is {my.count(char)}")
```

OUTPUT:-

e = 1

l = 2

o = 1

Program - 36

36. # Find all substrings of a string

```
my_string = "abc"
```

```
substrings = [my_string[i:j] for i in range  
(len(my_string)) for j in range(i+1, len(my  
string)+1)]
```

```
print(substrings)
```

OUTPUT:-

```
['a', 'ab', 'abc', 'b', 'bc', 'c']
```

Program - 37

37. # Replace vowels with a specific character.

```
my_string = "hello"
```

```
replace = "*"
```

```
result = ''.join([replace if char in 'aeiouAEIOU'  
else char for char in my_string])
```

```
print(result)
```

OUTPUT:-

```
h**llo
```

Program - 38

38. # Reverse a string without using built-in function

```
my_string = "hello"
```

```
reversed_string = ""
```

for char in my_string:

reversed_string = char +

reversed_string

point(reversed_string)

OUTPUT:-

olleh

range
, len(my

character.

'aeiouAEIOU'