

## DAY 1

### Simple Python Program

1. Python program to add two numbers
2. Python program to find the area of Triangle
  - a. Formula:  $\frac{1}{2} * b * h$ 
    - i. b - base
    - ii. h-height
3. Python program to swap two variable
  - a. Ex : a = 5, b = 10
  - b. Output: a = 10, b = 5
4. Python program to find the average of given numbers ( eg : a = 10, b = 30, c = 12 )
5. Python program to add a two numbers ( a and b ) and multiply the result by ( c ) and divide that final result by ( d ) ( eg : a = 10, b = 30, c = 12 , d = 3 )
6. Python program to store the below details with a separate variables ( name , age , dob , height, weight, degree, gender, is\_alive )
7. Python program to store 2 strings ( eg : word1 = "hello" word2 = "world" ) with 2 separate variables and result the two string into one string ( eg : helloworld ) using string concatenation

### Getting user input

8. Python program to get the name from user and display the name with greetings ( Sample Input :  
Given Input : Vignesh  
Sample Output : Hello! Vignesh )
9. Python program to get the age as input from the user. Store the input in a variable named user\_age (remember to convert it to an integer). Calculate how many years it will take to turn 100 years old and print it.

10. Python program to get 10th marks one by one from user (eg: tamil,english,maths,science,social ). Store the inputs in separate variables and Calculate total marks, average and print it.
11. Make a simple numeric calculator. It should prompt the user for three numbers. Then add the numbers together and divide by 2. Display the result. Your program must support numbers with decimals and not just integers.

## DAY 2

1. Here's a simple example of a for loop in Python that prints numbers from 1 to 5
2. Print the first 10 natural numbers using for loop
3. You can also specify a step value using the range() function. For instance, if you want to print even numbers from 2 to 20
4. You can also specify a step value using the range() function. For instance, if you want to print your all friends name:
5. Python program to print all the even numbers within the given range.
6. The user is prompted to enter their age using the input() function. The entered value is then converted to an integer using int(). The if condition checks if the age is greater than or equal to 18, If the condition is true, the person is eligible to vote; otherwise, they are not eligible. The appropriate message is printed based on the result of the if condition.
7. The user is prompted to enter their age using the input() function.You can use a for loop and an if condition to iterate through the numbers from 1 to given input and print only the odd numbers.
8. The user is prompted to enter their age using the input() function.You can use a for loop and an if condition to iterate through the numbers from 1 to given input and print only the even numbers.
9. You create a new list(friends list).then add new items and use all list functions.(pop,insert,remove, append)

## DAY 3

The below tasks should be done using the function

- 1) Write a function that calculates and returns the square of a given number.
- 2) Define a function that checks whether a given number is even or odd.
- 3) Write a program that gets several integers from the user. Sum up all the integers they give you. Stop looping when they enter a 0. Display the total at the end.
- 4) Python program to count the total number of digits in a number.

- 5) I have provided a function that is supposed to return the name of a day of the week given the day number

```
Weekday 1: Sunday
Weekday 2: Monday
Weekday 3: Tuesday
Weekday 4: Wednesday
Weekday 5: Thursday
Weekday 6: Friday
Weekday 7: Saturday
Weekday 0: Saturday

Weekday 43: error
Weekday 17: error
Weekday -1: error

Today is a Wednesday!
```

- 6) How Old Are You, Specifically?

Using if statements, else if, and else statements, make a program which displays a different message depending on the age given.

age	message
less than 16	"You can't drive."
16 to 17	"You can drive but not vote."
18 to 24	"You can vote but not rent a car."
25 or older	"You can do pretty much anything."

Note that unlike the How Old Are You assignment, this program must only display *exactly one* message for a given age and not multiple messages.

```
Hey, what's your name? (Sorry, I keep forgetting.) Billy_Corgan
Ok, Billy_Corgan, how old are you? 17

You can drive but you can't vote, Billy_Corgan.
```

- 7) Write a program that prints the numbers from 1 to 100. But for multiples of three print "Fizz" instead of the number and for the multiples of five print "Buzz". For numbers which are multiples of both three and five print "FizzBuzz".

8) Write a Python program that determines if a given year is a leap year. Enter a year as input.

Use conditional statements to check if the year satisfies the leap year conditions:

- The year should be divisible by 4 but not divisible by 100, or
- The year should be divisible by 400.
- Use appropriate logical operators and conditions to implement the leap year logic.
- Display an appropriate message indicating whether the year is a leap year or not.

Example output:

Enter the year=2024

2024 is a leap year

#### DAY 4

- 1) Write a program to iterate the first 10 numbers, and in each iteration, print the sum of the current and previous number.
- 2) Check if the first and last number of a list is the same  
Example : Given list: [10, 20, 30, 40, 10]  
result is True
- 3) Iterate the given list of numbers and print only those numbers which are divisible by 5
- 4) Write a program to check whether the given character is vowel or consonant.
- 5) Write a program to count the occurrence of even numbers and odd numbers between the range 10 – 55.
- 6) Write a program in Python to sort 3 numbers without using loops or conditional statements.
- 7) Write a program in Python to print numbers ranging from 1 to 25 but excluding numbers which are the multiples of 5.
- 8) Write a program in Python to count the occurrence of a specific value in a list.  
Input: a = [1,3,3,4,3,2,3], n: 3  
Output: 4 (3 occurs 4 time)
- 9) Write a program in Python to count the occurrence of a specific word in a string.  
Input: string\_ = "Adam is a boy and Adam loves to play cricket.", key: "Adam"  
Output: 2 (Adam occurs 2 times)
- 10) Given two integer numbers return their product. If the product is greater than 500, then return their sum.
- 11) Write a program to print the greatest of two numbers.
- 12) Write a program to print the greatest of three numbers.
- 13) Write a program to separate positive and negative numbers from a list.  
Input: Given x = [23, 4, -6, 23, -9, 21, 3, -45, -8]

Output: Positive: [23, 4, 23, 21, 3], Negative: [-6, -45, -9, -8]

- 14) Write a program to filter even and odd numbers from a list.
- 15) Write a program to count the number of letters in a word.
- 16) Write a program to get the maximum number from a list.
- 17) Write a program in Python to remove duplicate items from a list.

#### DAY 6(HTML && CSS)

[https://docs.google.com/document/d/1SsR9hFEkuSSR-vBijTLItS2r7L\\_YDqF6wevlj32opRk/edit](https://docs.google.com/document/d/1SsR9hFEkuSSR-vBijTLItS2r7L_YDqF6wevlj32opRk/edit)

#### Additional Task List

- 1) Write a program to find the given number is positive or negative or zero
- 2) Write a program to find a maximum of two numbers
- 3) [https://docs.google.com/document/d/1B6ur0To3FqCzmZNKylXNVtLJBugmNBV5mMjWs\\_cphsbE/edit](https://docs.google.com/document/d/1B6ur0To3FqCzmZNKylXNVtLJBugmNBV5mMjWs_cphsbE/edit)