

APRIL
1 2 3 4 5 6 7 8 9 10
11 12 13 14 15 16 17 18 19 20
21 22 23 24
25 26 27 28 29 30
W T W T F S S M T W T F S S

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Monday

Functions & Methods

Format :-

```
returntype functionName ( type arg1, type arg2-- )
{
    // operations
}
```

- ✓ returntype can be int, float, String, ---, etc.
- ✓ Depending upon the type of function, we can return that type of variable.
- So, int type function → int value return.
float type function → float value return.
- ✓ 'function Name' cannot be a Java keyword.
- ✓ void type function can't return any value.
Shall be a null return.
- ✓ usually, we camelcase to define the name of a function.
- Eg, myPrintName, fruitAndVegetables.
- ✓ Functions usually are stored in the form of Stack in the memory location.

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March

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Tuesday

Practice

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2022 MARCH

1	2	3	4	5	6	7	8	9	10	11	12	13
14	15	16	17	18	19	20	21	22	23	24	25	26
28	29	30	31									

M T W T F S S M T W T F S S

- Q) ① Write 4 functions to calculate sum, multiplication, division and subtraction of two numbers.
- Q) ② Write a program to calculate the factorial of an user input number.
- Q) ③ Enter 3 numbers from user & make a function to print their average.
- Q) ④ Write a function to print the sum of all odd numbers from 1 to n.
- Q) ⑤ Write a function which takes in 2 numbers and returns the greater of those two.
- Q) ⑥ Write a function that takes in the radius as input and returns the circumference of the circle.
Math.PI → for pi value.
- Q) ⑦ Write a function that takes in the age as input and returns if that person is eligible to vote or not. Age $> 18 \rightarrow$ eligible.
- Q) ⑧ Infinite loop using do while condition.
- Q) ⑨ Write a function program to enter the numbers till the user wants (and at the end it should display the count of positive, negative and zeros entered).
- Q) ⑩ Two numbers are entered by the user x and n. Write a function to find the value of one number raised to the power of another, i.e. x^n .
Math.Pow(x, n)
x and n double.

APRIL	12	13	14	15	16	17	18	19	20	21	22	23	24
11	12	13	14	15	16	17	18	19	20	21	22	23	24
10	11	12	13	14	15	16	17	18	19	20	21	22	23
9	10	11	12	13	14	15	16	17	18	19	20	21	22
8	9	10	11	12	13	14	15	16	17	18	19	20	21
7	8	9	10	11	12	13	14	15	16	17	18	19	20
6	7	8	9	10	11	12	13	14	15	16	17	18	19
5	6	7	8	9	10	11	12	13	14	15	16	17	18
4	5	6	7	8	9	10	11	12	13	14	15	16	17
3	4	5	6	7	8	9	10	11	12	13	14	15	16
2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	1	2	3	4	5	6	7	8	9	10	11	12	13

53,17

 $a = 17$

17) 53(3

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② 17(8

G.C.D(53,17) = 2

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Wednesday

write a function that calculates the greatest common divisor of 2 numbers.

(12) write a program to find fibonacci series of n terms where n is input by user -

0 1 1 2 3 5 8 13 21 ... → first 2 numbers have to be printed separately.

* Note:- Don't try to repeatedly instantiate Scanner class, such as "Scanner" in a loop.

Because in Java, when the 'Scanner' is closed, that reads from 'System.in', it closes the 'System.in' also. So, next time when loop attempts to create a 'Scanner' on 'System.in', it fails, leading to -

NoSuchElementException! - Input

04/04/2024 (Wednesday) 04/04/2024 (Wednesday) 04/04/2024 (Wednesday)

Time and Space Complexity

Q) What is Time Complexity?

→ It is a relation between Input size & Running Time.

Input size depends on the variable being taken as input. So, more the input size, more the running time of operations.

Relation b/w input size & running time can be linear, quadratic, cubic, log, sqrt, etc.