Basic Programs

1. Write a Program that accepts two Strings as command line arguments and generate the output in the required format.

Example1)
If the two command line arguments are Wipro and Bangalore then the output generated should be Wipro Technologies Bangalore.
Example2)
If the command line arguments are ABC and Mumbai then the output generated should be ABC Technologies Mumbai
[Note: It is mandatory to pass two arguments in command line]

2. Write a Program to accept a String as a command line argument and print a Welcome message as given below.

Example1)
C:\> java Sample John
O/P Expected : Welcome John

3. Write a Program to accept two integers as command line arguments and print the sum of the two numbers

Example1)
C:\>java Sample 10 20
O/P Expected : The sum of 10 and 20 is 30

If Statement

1. **Write a program to check if a given integer number is Positive, Negative, or Zero.**

   Test Case 1
   Input : 1
   Output : Positive Number

   Test Case 2
   Input : -125
   Output : Negative Number

   Test Case 3
   Input : 0
   Output : Zero

2. **Write a program to check if a given integer number is odd or even.**

   Test Case 1
   Input : 1
   Output : Odd Number

   Test Case 2
   Input : 124
   Output : Even Number

3. **Initialize two character variables in a program and display the characters in alphabetical order.**

   Test Case 1
   If the first character is 's' and second character is 'e' then the output should be e,s
   Test Case 2
   If the first character is 'a' and second character is 'e', then the output should be a,e

4. **Initialize a character variable in a program and print the initialized data type**

   Test Case 1
   Print 'Alphabhet' if the initialized value is an alphabhet,
   Test Case 2
   Print 'Digit' if the initialized value is a number
   Test Case 3
   Print 'Special Character', if the initialized value is anything else.

5. **Write a program to accept gender ("Male" or "Female") and age and print the percentage of interest based on the given conditions.**

Test Case 1

If the gender is 'Female' and age is between 1 and 58, the percentage of interest is 8.2%.

Test Case 2

If the gender is 'Female' and age is between 59 and 100, the percentage of interest is 9.2%.

Test Case 3

If the gender is 'Male' and age is between 1 and 58, the percentage of interest is 8.4%.

Test Case 4

If the gender is 'Male' and age is between 59 and 100, the percentage of interest is 10.5%.

6. **Initialize a character variable with an alphabet in a program.**

Test Case 1

If the character value is in lowercase, the output should be displayed in uppercase in the following format.

Input : a
Output : A

Test Case 2

If the character value is in uppercase, the output should be displayed in lowercase in the following format.

Input : A
Output : a

Switch Statement

1. **Write a program to receive a color code from the user (an Alphabhet). The program should then print the color name, based on the color code given.**

The following are the color codes and their corresponding color names.
R->Red, B->Blue, G->Green, O->Orange, Y->Yellow, W->White.

If color code provided by the user is not valid then print "Invalid Code".

Test Case 1
Input : G
Output: Green

Test Case 2
Input : B
Output: Blue

Test Case 3
Input : M
Output: Invalid Code

2. **Write a program to receive a number and print the corresponding month name.**

Test Case 1
Input : 8
Output : August

Test Case 2
Input : 15
Output : Invalid Month

For Loop

1. **Write a program to print numbers from 1 to 10 in a single row with one tab space.**

Output

1 2 3 4 5 6 7 8 9 10

2. **Write a program to print even numbers between 23 and 57. Each number should be printed in a separated row.**

Output

24
26
28
30
32
34
36
38
40
42
44
46
50
52
54
56

3. **Write a program to print the prime numbers between 10 and 99.**

Output

11 13 17 19 23 29 31 37 41 43 47 53 59 61 67 71 73 79 83 89 97

4. **Write a program to print the sum of all the digits of a given number.**

Test Case 1

Input : 12345
Output : 15

Test Case 2

Input : 17854
Output : 25

5. Write a program to print the Floyds Triangle

Test Case 1

Input : 3

Output :

```
1
2 3
4 5 6
```

Test Case 2

Input : 6

Output :

```
1
2  3
4  5   6
7  8   9  10
11 12 13  14  15
```

6. Write a program to print the following pattern

Test Case 1

Input : 5

Output

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

Test Case 2

Input : 4

Output

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

While Loop

1. **Write a program to reverse a given number and print**

Test Case 1
Input : 1234
Output : 4321

Test Case 2
Input : 78512
Output : 21587

2. **Write a program to find if the given number is palindrome or not.**

Test Case 1
Input : 1234
Output : Not a Palindrome

Test Case 2
Input : 11211
Output : Palindrome

3. **Write a program to print the first 5 values which are divisible by 2,3 and 5.**

Arrays

1. Write a program to initialize an integer array and print the sum and average of the array.

2. Write a program to initialize an integer array and find the maximum and minimum value of the array.

3. Write a program to initialize an integer array with values and check if a given number is present in the array or not.

If the number is not found, it will print -1 else it will print the index value of the given number in the array.

Example 1) If the Array elements are {1,4,34,56,7} and the search element is 90, then the output expected is - 1.

Example 2) If the Array elements are {1,4,34,56,7} and the search element is 56, then the output expected is 3.

4. Initialize an integer array with ascii values and print the corresponding character values in a single row.

5. Write a program to find the largest 2 numbers and the smallest 2 numbers in the given array.

6. Write a program to initialize an array and print them in a sorted order.

7. Write a program to remove the duplicate elements in an array and print the same.

Example) I/P:{12,34,12,45,67,89}

O/P:{12,34,45,67,89}

8. Write a program to print the sum of the elements of an array following the given below condition.

If the array has 6 and 7 in succeeding orders, ignore the numbers between 6 and 7 and consider the other numbers for calculation of sum.

Eg1) Array Elements - 10,3,6,1,2,7,9 O/P: 22

[i.e 10+3+9]

Eg2) Array Elements - 7,1,2,3,6 O/P:19

Eg3) Array Elements - 1,6,4,7,9 O/P:10

9. Write a program to reverse the elements of a given 2*2 array. Four integer numbers needs to be passed as Command Line arguments.

Example1)

C:\>java Sample 1 2 3

O/P: Please enter 4 integer numbers

Example2)

C:\>java Sample 1 2 3 4

O/P:

The given array is :

1 2

3 4

The reverse of the array is :

4 3

2 1

10. Write a program to find the biggest number in a 3*3 array. The program is supposed to receive 9 integer numbers as command line arguments.

Example1:

C:\>java Sample 1 2 3

O/P: Please enter 9 integer numbers

Example2:

C:\>java Sample 1 23 45 55 121 222 56 77 89

O/P:

The given array is :

1 23 45

55 121 222

56 77 89

The biggest number in the given array is 222