Language basic

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| **No.** | **Hands-on Assignment** | **Topics Covered** | **Status** |
| 1 | Write a Program that accepts two Strings as command line arguments and generate the output in a specific way as given below.  Example:  If the two command line arguments are Wipro and Bangalore then the output generated should be Wipro Technologies Bangalore.  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] | Command Line Argument |  |
| 2 | Write a Program to accept a String as a Command line argument and the program should print a Welcome message.  Example :  C:\> java Sample John  O/P Expected : Welcome John | Command Line Argument |  |
| 3 | Write a Program to accept two integers through the command line argument and print the sum of the two numbers  Example:  C:\>java Sample 10 20  O/P Expected : The sum of 10 and 20 is 30  Write a Program to accept two integers through the command line  argument and print the sum of the two numbers  Example:  C:\>java Sample 10 20  O/P Expected : The sum of 10 and 20 is 30 |  |  |

Flow Control

FlowExercise**n.**java

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| Write a program to check if a given number is Positive, Negative, or Zero. | If Statement |  |
| 2 | Write a program to check if a given number is odd or even. | If Statement |  |
| 3 | Write a program to check if the program has received command line arguments or not. If the program has not received the values then print "No Values", else print all the values in a single line separated by ,(comma).  Eg1) java Example  O/P: No values  Eg2) java Example Mumbai Bangalore  O/P: Mumbai,Bangalore  [Note: You can use length property of an array to check its length | If Statement |  |
| 4 | Initialize two character variables in a program and display the characters in alphabetical order.  Eg1) if first character is s and second is e  O/P: e,s  Eg2) if first character is a and second is e  O/P:a,e | If Statement |  |
| 5 | Intialize a character variable in a program and if the value is alphabet then print "Alphabet" if it’s a number then print "Digit" and for other characters print "Special Character" | If Statement |  |
| 6 | Write a program to accept gender ("Male" or "Female") and age (1-120) from command line arguments and print the percentage of interest based on the given conditions.  Interest == 8.2%  Gender ==> Female  Age ==>1 to 58  Interest == 7.6%  Gender ==> Female  Age ==>59 -120  Interest == 9.2%  Gender ==> Male  Age ==>1-60  Interest == 8.3%  Gender ==> Male  Age ==>61-120 | If Statement |  |
| 7 | Write a program to convert from upper case to lower case and vice versa of an alphabet and print the old character and new character as shown in example (Ex: a->A, M->m). | If Statement |  |
| 8 | Write a program to print the color name, based on color code. If color code in not valid then print "Invalid Code". R->Red, B->Blue, G->Green, O->Orange, Y->Yellow, W->White. | Switch Statement |  |
| 9 | Write a program to print month in words, based on input month in numbers  Example1:  C:\>java Sample 12  O/P Expected : December  Example2:  C:\>java Sample  O/P Expected : Please enter the month in numbers  Example3:  C:\>java Sample 15  O/P Expected : Invalid month | Switch Statement |  |
| 10 | Write a program to print numbers from 1 to 10 in a single row with one tab space. | For Loop |  |
| 11 | Write a program to print even numbers between 23 and 57, each number should be printed in a separate row. | For Loop |  |
| 12 | Write a program to check if a given number is prime or not | For Loop |  |
| 13 | Write a program to print prime numbers between 10 and 99. | For Loop |  |
| 14 | Write a Java program to find if the given number is prime or not.  Example1:  C:\>java Sample  O/P Expected : Please enter an integer number  Example2:  C:\>java Sample 1  O/P Expected : 1 is neither prime nor composite  Example3:  C:\>java Sample 0  O/P Expected : 0 is neither prime nor composite    Example4:  C:\>java Sample 10  O/P Expected : 10 is not a prime number  Example5:  C:\>java Sample 7  O/P Expected : 7 is a prime number | For Loop |  |
| 15 | Write a program to add all the values in a given number and print. Ex: 1234->10 | For Loop |  |
| 16 | Write a program to print \* in Floyds format (using for and while loop)  \*  \* \*  \* \* \*  Example1:  C:\>java Sample  O/P Expected : Please enter an integer number  Example1:  C:\>java Sample 3  O/P Expected :  \*  \* \*  \* \* \* | For Loop |  |
| 17 | Write a program to reverse a given number and print  Eg1)  I/P: 1234  O/P:4321  Eg2)  I/P:1004  O/P:4001 | While Loop |  |
| 18 | Write a Java program to find if the given number is palindrome or not  Example1:  C:\>java Sample 110011  O/P Expected : 110011 is a palindrome  Example2:  C:\>java Sample 1234  O/P Expected : 1234 is not a palindrome | While Loop |  |
| 19 | Write a program to print first 5 values which are divisible by 2, 3, and 5. | While Loop |  |
| 20 | Write a program that displays a menu with options 1. Add 2. Sub  Based on the options chosen, read 2 numbers and perform the relevant operation. After performing the operation, the program should ask the user if he wants to continue. If the user presses y or Y, then the program should continue displaying the menu else the program should terminate.  [ Note: Use Scanner class, you can take help from the trainer regarding the same ] |  |  |

Array

ArrayExercise**n**.java

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| **No.** | **Hands-on Assignment** | **Topics Covered** | **Status** |
| 1 | Write a program to initialize an integer array and print the sum and average of the array | One dimensional Array |  |
| 2 | Write a program to initialize an integer array and find the maximum and minimum value of an array | One dimensional 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  Ex1) Array elements are {1,4,34,56,7} and the search element is 90  O/P: -1  Ex2)Array elements are {1,4,34,56,7} and the search element is 56  O/P: 4 | One dimensional Array |  |
| 4 | Initialize an integer array with ascii values and print the corresponding character values in a single row. | One dimensional Array |  |
| 5 | Write a program to find the largest 2 numbers and the smallest 2 numbers in the given array | One dimensional Array |  |
| 6 | Write a program to initialize an array and print them in a sorted fashion | One dimensional Array |  |
| 7 | Write a program to remove the duplicate elements in an array and print  Eg) Array Elements--12,34,12,45,67,89  O/P: 12,34,45,67,89 | One dimensional Array |  |
| 8 | Write a program to print the element of an array that has occurred the highest number of times  Eg) Array -> 10,20,10,30,40,100,99  O/P:10 | One dimensional Array |  |
| 9 | Write a program to print the sum of the elements of the array with the given below condition. If the array has 6 and 7 in succeeding orders, ignore 6 and 7 and the numbers between them for the 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 | One dimensional Array |  |
| 10 | 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 Expected : Please enter 4 integer numbers  Example2:  C:\>java Sample 1 2 3 4  O/P Expected :    The given array is :  1 2  3 4  The reverse of the array is :  4 3  2 1  1 2 3 4  5 6 7 8  9 10 11 12 | Two Dimensional Array |  |
| 11 | Write a program to find greatest 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 Expected : Please enter 9 integer numbers  Example2:  C:\>java Sample 1 23 45 55 121 222 56 77 89  O/P Expected :  The given array is :  1 23 45  55 121 222  56 77 89  The biggest number in the given array is 222 |  |  |