Lab Sheet-1 Java Basics

1. Write a Java method for finding the smallest and largest numbers in an array of integers.
2. Write a function *LinearSearch,* that takes an *array* and *key value* as input. The function should return the index of the *keyvalue* if it is present in array. Return -1 in the element is not present in the array.
3. Write a program in java that takes an integer as input and finds the sum of numbers up to that number and prints it. Write as a function and test your function by calling in main.
4. Write a function, prime, that take a number and prints all prime numbers upto n.
5. Write a function in Java to find whether a pair of distinct elements whose product is even is present in an array of numbers.
6. Write a Java program that can take a positive integer greater than 2 as input and write out the number of times one must repeatedly divide this number by 2 before getting a value less than 2.
7. Java program that takes all the lines input to standard input and writes them to standard output in reverse order. That is, each line is output in the correct order, but the ordering of the lines is reversed.
8. Write a short Java method that takes an array of int values and determines if there is a pair of distinct elements of the array whose product is even.
9. Write a Java class, Flower, that has three instance variables of type String, int, and float, which respectively represent the name of the flower, its number of petals, and price. Your class must include a constructor method that initializes each variable to an appropriate value, and your class should include methods for setting the value of each type, and getting the value of each type.