1. What is the index of Brighton in the following array? = 2

String[] skiResorts = {

"Whistler Blackcomb", "Squaw Valley", "Brighton",

"Snowmass", "Sun Valley", "Taos"

};

Write an expression that refers to the string Brighton within the array. == skiResorts[2]

What is the value of the expression skiResorts.length?

What is the index of the last item in the array?

What is the value of the expression skiResorts[4]?

1. Write a Java program to sort a numeric array and a string array.
2. Write a Java program to sum values of an array
3. Write a Java program to calculate the average value of array elements.
4. Write a Java program to test if an array contains a specific value
5. Write a Java program to remove a specific element from an array
6. Write a Java program to insert an element (specific position) into an array.
7. Write a Java program to find the maximum and minimum value of an array.
8. Write a Java program to reverse an array of integer values.
9. Write a Java program to find the second largest element in an array.
10. Write a Java program to get the difference between the largest and smallest values in an array of integers. The length of the array must be 1 and above.
11. Write a Java program to compute the average value of an array of integers except the largest and smallest values.
12. Write a Java program to remove the duplicate elements of a given array and return the new length of the array.  
    Sample array: [20, 20, 30, 40, 50, 50, 50]  
    After removing the duplicate elements the program should return 4 as the new length of the array.
13. Write a Java program to replace every element with the next greatest element (from right side) in the given array of integers.
14. Write a Java Program to reverse the string array contents.
15. Write a Java Program to remove a particular element from a string array.
16. Do this exercise
    1. Realize a Java class whose objects maintain some information on the owners of apartments.
    2. Each object of the class should contain a string that indicates the name of the owner, and an array of 10 slots of type string, indexed by the numbers from 0 to 9, that can contain each the address of an apartment owned by that owner (or null, if the slot is empty).
    3. The class should export the following functionalities:
       1. a constructor that takes as parameter the name of the owner, and creates an object with the specified owner and in which all slots of the array are initially empty;
       2. a method that returns the owner of an apartment;
       3. a method that returns the address contained in a slot (or null, if the slot is empty);
       4. a method to assign the address of an apartment to a slot;
       5. a method that returns the number of apartments (i.e., of non-empty slots);
       6. a method that reorganizes the addresses in such a way that they are contained in the first consecutive slots of the array;
       7. a method toString, that overrides the toString method inherited from Object, and returns a string containing the information about the object.

public class ApartmentOwner {

// representation of the objects of the class

private String owner;

private String[] apartments;

// public methods that realize the requested functionalities

public ApartmentOwner() {…}

public ApartmentOwner(String name) {…}

public String getOwner() { ... }

public String getApartment(int slot) { ...

public void setApartment(String address, int slot) { ... }

public int countApartments() { ... }

public void reorganizeApartments() { ... }

public String toString() { ... }

}