

Ex No: 4	ARRAY LIST
Date: 16/08/2019	

AIM:

* To create an array of strings and append a string at the end and search for a string to sort a string from array.

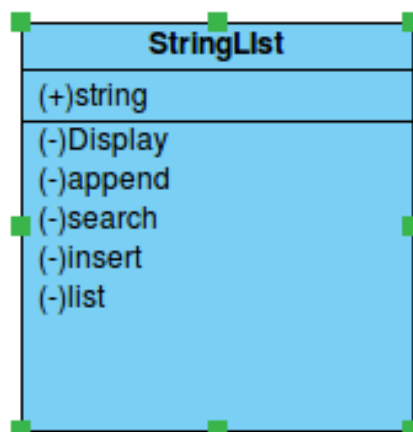
REQUIREMENTS:

- * To add a string to the array at the end.
- * To insert a string at particular index.
- * To search for a string in array.
- * To sort a string with a particular index.

ALGORITHM:

1. Create a package stringcollection.
2. Create a class StringList.
3. Declare array of string structure.
4. Define the requirement in different cases.
5. Declare case(1) for appending a string to the array.
6. Declare case(2) for inserting a string at a particular index.
7. Declare case(3) for searching a string.
8. Declare case(4) to display all the strings starts with given letter.
9. Declare case(5) to display all the strings.
10. Stop.

CLASS DIAGRAM:



PROGRAM:

```
/**
 * EXPERIMENT-04
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 */

package Stringcollection;

import java.util.*;

public class Stringlist {

    public static void main(String[] args) {
        int option;
        String n;
        int index;
        int i;
        String a;
        Scanner sc=new Scanner(System.in);
        ArrayList<String> nums;

        nums=new ArrayList<String>();

        while(true)
        {
            System.out.println("1. To add an String  at the end");
            System.out.println("2. To insert an String at
particular index");
            System.out.println("3. To search for a String");
            System.out.println("4. To display with letter");
            System.out.println("5. display all");
            System.out.println("6. Exit");
            System.out.print("Enter your choice:");

            option=sc.nextInt();
            switch(option)
            {
                case 1:
                    System.out.print("Enter a String:");
                    n=sc.next();
                    nums.add(n);

                    System.out.println("The given String is added at
the end");
                    break;
                case 2:
```

```

        System.out.print("Enter a String:");
        n=sc.next();
        System.out.print("Enter the index:");
        index=sc.nextInt();
        nums.add(index,n);
        System.out.println("The given String is added at
the given index");
        break;
    case 3:
        System.out.print("Enter a String:");
        n=sc.next();
        index=nums.indexOf(n);
        if(index<0)
        {
            System.out.println("The given String is not
available in the list");
        }else
        {
            System.out.printf("The String %s is found at
the index %s\n",n,index);
        }
        break;
    case 4:
        System.out.println("Enter a letter:");
        a=sc.next();

        for(i=0;i<nums.size();i++)
        {
            if(nums.get(i).startsWith(a))
            {
                System.out.println(nums.get(i));
            }
        }
        break;
    case 5:
        System.out.println("The available strings are:");
        for(i=0;i<nums.size();i++)
        {
            System.out.println(nums.get(i));
        }
        break;

    case 6:
        System.out.println("Thankyou for using string list
application !!!");
        break;
    default:
        System.out.println("Please enter a valid
Sting!!!");
}

```

```
        if(option==6)
        {
            break;
        }
    }
}
```

RESULT:

Thus the Java program to create ArrayList using StringList is written and executed successfully.