

EXP NO:04	STRING COLLECTION APPLICATION
DATE:	

### AIM:-

To create an array of strings where a string can be appended at the end, should be able to insert a string at a particular index, should be able to search for a string and sort a string with a letter starting at the first.

### REQUIREMENT:-

- Should be able to append a string at the end
- should be able to insert a string at a particular index
- should be able to search for string
- should be able to sort a string with letter at first
- should be able to display the array of strings

### ALGORITHM:-

STEP 1: create a package String

STEP 2: create a class named StringList

STEP 3: describe the structure of array of strings

STEP 4: Declare different cases for different conditions

STEP 5: mention the case for appending a string at the end

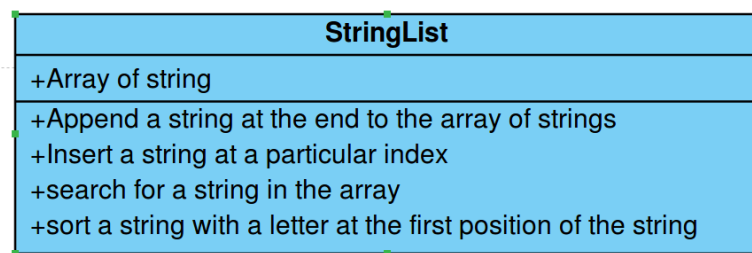
STEP 6: mention another case for inserting a string at a particular index and display the array of strings

STEP 7: mention another case for searching a string in the array and display search result with the index value of the string if the string is in the array or else print the string is unavailable

STEP 8: mention another case for sorting a string from array with a letter at first print the string if available or else print the string is not available

STEP 9: specify the condition for executing different cases

### CLASS DIAGRAM:



### PROGRAM:

```
/**STRING COLLECTION APPLICATION
```

```
* Created by M.uday kanth,EEE-B
```

```
* 212217105037
```

```
*/
```

```
package String;
```

```
import java.util.*;
```

```
public class StringList {
```

```
    public static void main(String[] args) {
```

```
        // TODO Auto-generated method stub
```

```

int option;
    int index,i;
    String n;
    Scanner sc=new Scanner(System.in);
    ArrayList<String> strings;
strings=new ArrayList<String>();
    while(true)
    {
        System.out.println("1. To add a string at the end");
        System.out.println("2. To insert a string at particular index");
        System.out.println("3. To search for a string");
        System.out.println("4. To display all the Strings");
        System.out.println("5. To Display the strings starting with the given letter");
        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();
                strings.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();
                strings.add(index,n);
                System.out.println("The given string is added at the given index");
                break;
            case 3:
                System.out.print("Enter a strings:");
                n=sc.next();
                index=strings.indexOf(n);
                if(index<0)
                {
                    System.out.println("The given strings is not available in the list");
                }else
                {
                    System.out.printf("The strings %s is found at the index %s\n",n,index);
                }
                break;
            case 4:
                System.out.println("The available numbers are:");
                for(i=0;i<strings.size();i++)
                {
                    System.out.println(strings.get(i));
                }
                break;
            case 5:

```

```

        System.out.println("Enter the first letter character");
        n=sc.next();
        for(i=0;i<strings.size();i++)
        {
            if(strings.get(i).startsWith(n))
            {
                System.out.println(strings.get(i));
            }
        }
        break;
    case 6:
        System.out.println("Thankyou for using strings list application !!!");
        break;
    default:
        System.out.println("Please enter a valid choice !!!");
    }
    if(option==6)
    {
        break;
    }
}
}
}

```

## OUTPUT:

1. To add a string at the end
2. To insert a string at particular index
3. To search for a string
4. To display all the Strings
5. To Display the strings starting with the given letter
6. Exit

Enter your choice:1

Enter a String:uday

The given string is added at the end

1. To add a string at the end
2. To insert a string at particular index
3. To search for a string
4. To display all the Strings
5. To Display the strings starting with the given letter
6. Exit

Enter your choice:2

Enter a string:hari

Enter the index:0

The given string is added at the given index

1. To add a string at the end
2. To insert a string at particular index
3. To search for a string
4. To display all the Strings
5. To Display the strings starting with the given letter
6. Exit

Enter your choice:5

Enter the first letter character

u

uday

1. To add a string at the end
2. To insert a string at particular index
3. To search for a string
4. To display all the Strings
5. To Display the strings starting with the given letter
6. Exit

Enter your choice:6

Thankyou for using strings list application !!!

## RESULT:-

Hence, A java program is created for string collection application where string can be added to an array, a string can be inserted at particular index in the array, a string can be searched, a string can be sorted from array with a letter at first place in thye string.

