

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

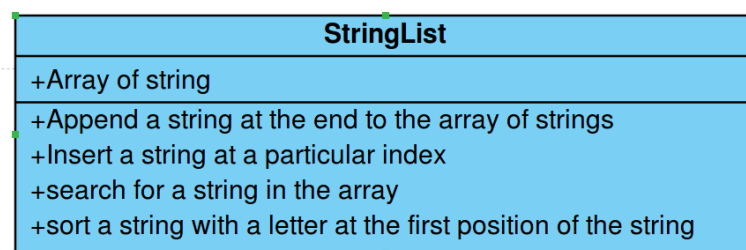
STEP 6: mention another case for inserting a string at a particular index and display the array of strings

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:

```

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        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.

