

EX NO:4	ARRAY LIST
DATE:16/08/19	

AIM:

write program for array of strings and append a string at the end search for a string to sort a string from array.

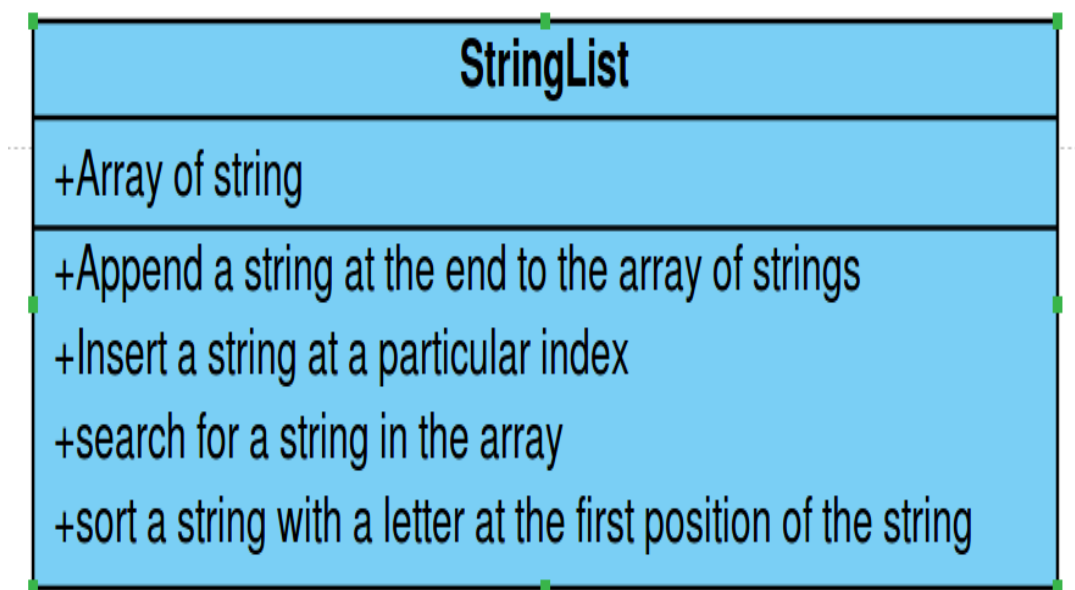
REQUIREMENT:

- To declare a string to array at index
- To insert a string at particular index
- To search for a string at particular letter

ALGORIHM

- step1:create pacakge
- step2:create class
- step3:declare array of strings structure
- step4:define the requirement in different case
- step5:declare case1 for appending a string to the array
- step6:declare case2for insertiong string at particular index
- step7:declare case3for searching a string
- step8:declare case4for sorting a string array with particular letter
- step9:specify the condition for applying the different case
- step10:stop

CLASS DIAGRAM:



PROGRAM:

```
/*saveetha engineering college
* developed by
* suriya kumar
* 212217105057*/
package Stringcollection;
import java.util.*;

public class Stringlist{

public static void main(String[] args) {
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:suri
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:1
Enter a String:sarathi
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:1
Enter a String:yogi
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:tamil
Enter the index:2
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:3
Enter a strings:suri
The strings suri is found at the index 0
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:4
The available numbers are:
suri
sarathi
tamil
yogi
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
s
suri
sarathi
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:
```

RESULT:

Thus, the java program for array of strings and append a string at the end search for a string to sort a string from array was designed successfully.