EXP NO:04	STRING COLLECTION APPLICATION
DATE:16.8.19	

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.

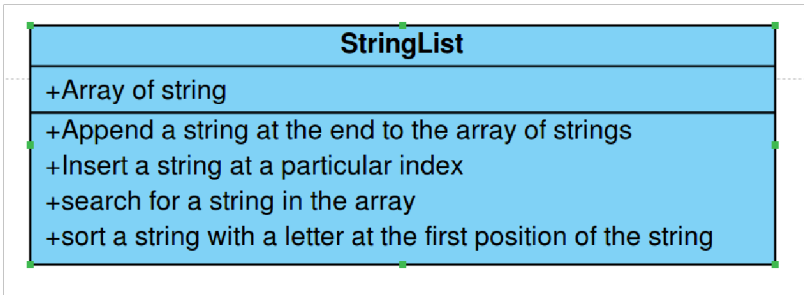
REQUIREMENT:-

-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 stings
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:

```
/**
* Created by S.sakthi, EEE-B.
* 212217105051
 */
```

```
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:Lock
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
L
Lock
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
Thank you 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 the string.