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 stings
STEP 4:Declare different cases for different conditions
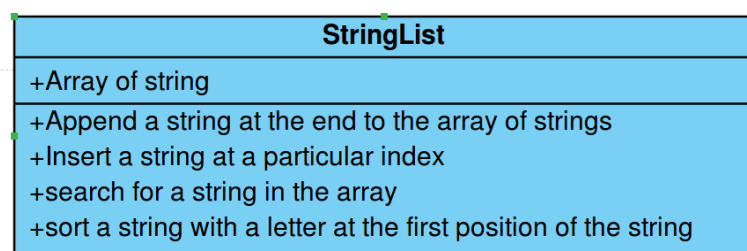STEP 5:mention the case for appending a string at the end
STEP 6:mention another case for inserting a string at a particular index and display the array of strings
STEP 7:mention another case for searching a string in the array and display search result with the index value of the string if the string 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:

StringList
+Array of string
+Append a string at the end to the array of strings
+Insert a string at a particular index
+search for a string in the array
+sort a string with a letter at the first position of the string

PROGRAM:

```
/***
 *STRING COLLECTION APPLICATION
 * Created by R. Neha
 */EEE-B
 * 212217105049
 */
package String;
import java.util.*;
public class StringList {
    public static void main(String[] args) {
                // TODO Auto-generated method stub
```

```java
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 theend
2. To insert a string at particularindex
3. To search for astring
4. To display all theStrings
5. To Display the strings starting with the givenletter
6. Exit
Enter your choice:1
Enter a String:uday
The given string is added at the end
1. To add a string at theend
2. To insert a string at particularindex
3. To search for astring
4. To display all theStrings
5. To Display the strings starting with the givenletter
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 theend
2. To insert a string at particularindex
3. To search for astring
4. To display all theStrings
5. To Display the strings starting with the givenletter
6. Exit
Enter your choice:5
Enter the first letter character
u

uday
1. To add a string at theend
2. To insert a string at particularindex
3. To search for astring
4. To display all theStrings
5. To Display the strings starting with the givenletter
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.