Ex No:04

ARRAY LIST

Date:16-08-19

AIM:

To develop a java console application to perform string operations.

REQUIREMENTS:

Write functions for the following
a. Append - add at end
b. Insert – add at particular index
c. Search
d. List all string starts with given letter

ALGORITHM:

Step1: Declare a package String Collections.
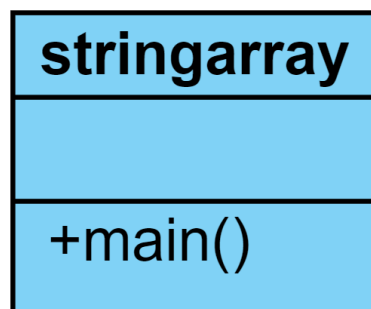
Step2: Create the string array class and put the operation for array list.

Step3: Create a separate operation for append

Step4: Ask the user to get the option for processing the operation.

Step5: Display the result.

CLASS DIAGRAM:

PROGRAM:

```
/*******
 * created by manikanta
 * Gmail: amanikanta69@gmail.com
 * program to find string
 */

package stringcollections;
```

```java
import java.util.ArrayList;
import java.util.Scanner;
public class stringarray {
    public static void main(String[] args) {
        int option;
        int index,i;
        String n;
        Scanner sc=new Scanner(System.in);
        ArrayList<String> str;

        str=new ArrayList<String>();
    while(true)
    {
        System.out.println("1. To add an String number at the
end");
        System.out.println("2. To insert an string number at
particular index");
        System.out.println("3. To search for a string");
        System.out.println("4. To display all the string");
        System.out.println("5. Exit");
        System.out.print("Enter your choice:");
        option=sc.nextInt();
        switch(option)
        {
        case 1:
            System.out.print("Enter a String:");
            n=sc.next();
            str.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();
            str.add(index,n);
            System.out.println("The given String is added at the
given index");
            break;
        case 3:
```

```java
            System.out.print("Enter a String:");
            n=sc.next();
            index=str.indexOf(n);
            if(index<0)
            {
                System.out.println("The given String is not
available in the list");
            }else
            {
                System.out.printf("The String %s is found at the
index %d\n" ,str,index);
            }
            break;
        case 4:
                    char l;
            System.out.println("Enter the starting letter: ");
                    l=sc.next().charAt(0);

            for(i=0;i<str.size();i++)
            {
                    String str1 = str.get(i);
                    if(l==str1.charAt(0))
                    System.out.println(str1);
            }
                    break;
        case 5:
            System.out.println("Thankyou for using String list
application !!!");
            break;
        default:
            System.out.println("Please enter a valid
String !!!");
        }

        if(option==5)
        {
            break;
        }
    }
    }
}
```

OUTPUT:
1. To add an String number at the end
2. To insert an string number at particular index
3. To search for a string
4. To find the string starting with
5. Exit
Enter your choice:1
Enter a String:mani
The given String is added at the end
1. To add an String number at the end
2. To insert an string number at particular index
3. To search for a string
4. To find the string starting with
5. Exit
Enter your choice:1
Enter a String:stupid
The given String is added at the end
1. To add an String number at the end
2. To insert an string number at particular index
3. To search for a string
4. To find the string starting with
5. Exit
Enter your choice:1
Enter a String:karthi
The given String is added at the end
1. To add an String number at the end
2. To insert an string number at particular index
3. To search for a string
4. To find the string starting with
5. Exit
Enter your choice:2
Enter a String:baira
Enter the index:1
The given String is added at the given index
1. To add an String number at the end
2. To insert an string number at particular index
3. To search for a string
4. To find the string starting with
5. Exit
Enter your choice:3
Enter a String:b
The given String is not available in the list

```
1. To add an String number at the end
2. To insert an string number at particular index
3. To search for a string
4. To find the string starting with
5. Exit
Enter your choice:4
Enter the starting letter:
b
baira
1. To add an String number at the end
2. To insert an string number at particular index
3. To search for a string
4. To find the string starting with
5. Exit
Enter your choice:5
Thankyou for using String list application !!!
```

RESULT:

              Thus the java Program is created to find the string in array is executed and the output is verified.