

STRING OPERATIONS USING ARRAYLIST

AIM:

To write a java program to perform string operations using ArrayList.

ALGORITHM:

1. Import the java packages.
2. Define a class ArrayList and perform following functions:
 - a. Append - add at end
 - b. Insert - add at particular index
 - c. Search
 - d. List all string starts with given letter
3. Create an object for ArrayList to add string elements.
4. By using ArrayList Method – add the elements are added into the Array List, the new element gets added after the last element unless the index is specified.
5. The elements in ArrayList are displayed.
6. Insert the specified element at the specified position index in this list.
7. After inserting the elements in ArrayList, the elements are displayed.
8. Search an object in ArrayList whether it is listed under this instance or not.
9. Finally List all string starts with given letter in ArrayList and displays the elements.

PROGRAM:

*//File Name should be **ArrayList.java***

```
import java.util.*; public
class ArrayList
{
    public static void main(String args[])
    {
        ArrayList<String> obj = new ArrayList<String>();

        /* Append - add at end */
        obj.add("Arun");
        obj.add("Balaji");
        obj.add("Chandru");  obj.add("David");
        obj.add("Elango");
```

```

        System.out.println("\n"+"Elements in ArrayList:");
        System.out.print("\t"+obj+" "+"\\n" + "\\n");

        /* Insert - add at particular index */
        obj.add(0, "Arujun");          obj.add(1,
        "Barath");

        System.out.println("After Inserting Elements:"+"");
        System.out.print("\t"+obj+" "+"\\n" + "\\n");

        /* Searching Elements in ArrayList */
        System.out.println("Search For Element:");
        Scanner in = new Scanner(System.in);
        String searchStr=in.nextLine();

        boolean ans = obj.contains(searchStr);

        if (ans)
            System.out.println("\t"+"ArrayList contains" +searchStr+ "\\n");
        else
            System.out.println("ArrayList does not contains "+searchStr);

        /* List all string starts with given letter in ArrayList */
        System.out.println("Arraylist get the strings starting with given letter:");

        ArrayList<String> obj1 = new ArrayList<String>();

        String start= in.next();
        for(int i=0;i<obj.size();i++)
        {
            if(obj.get(i).startsWith(start.toUpperCase()))
            {
                obj1.add(obj.get(i));
            }
        }
        System.out.print("\t"+obj1+" "+"\\n" + "\\n");
    }
}

```

NOTE:

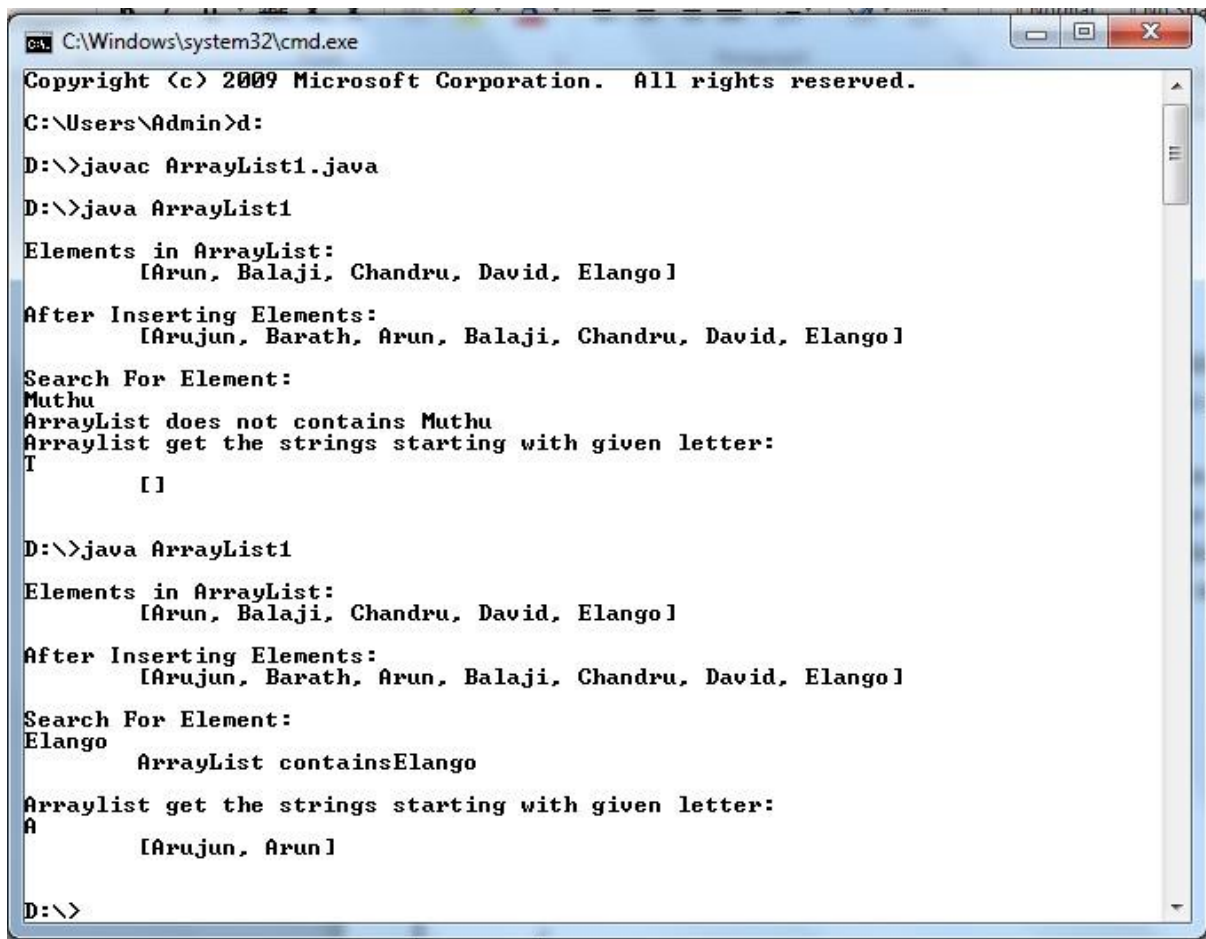
To Compile:

javac ArrayList.java To

Run:

java ArrayList

OUTPUT:



```
C:\Windows\system32\cmd.exe
Copyright (c) 2009 Microsoft Corporation. All rights reserved.
C:\Users\Admin>d:
D:\>javac ArrayList1.java
D:\>java ArrayList1
Elements in ArrayList:
    [Arun, Balaji, Chandru, David, Elango]
After Inserting Elements:
    [Arujun, Barath, Arun, Balaji, Chandru, David, Elango]
Search For Element:
Muthu
ArrayList does not contains Muthu
Arraylist get the strings starting with given letter:
T
    []

D:\>java ArrayList1
Elements in ArrayList:
    [Arun, Balaji, Chandru, David, Elango]
After Inserting Elements:
    [Arujun, Barath, Arun, Balaji, Chandru, David, Elango]
Search For Element:
Elango
    ArrayList containsElango
Arraylist get the strings starting with given letter:
A
    [Arujun, Arun]

D:\>
```

RESULT:

Thus the Implementation for string operations using ArrayList has been successfully executed.