"Experiment 2.3"

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Branch: **CSE** Section/Group: **808-A**
Semester: **5** Date of Submission: **28-10-22**
Subject Name: **PBLJ Lab** Subject Code: **20CSP-321**

Aim:

Write a Program to perform the basic operations like insert, delete, display and search in list. List contains String object items where these operations are to be performed.

Minimum Hardware Requirements:

- 2 GHz CPU or 1 virtual CPU in virtualized environments.
- 1 GB of RAM.
- 4 GB of storage.

Minimum Software Requirements:

Software	Version
• OS	• Mac OS 10.15, HP-UX 11i V3, AIX 7.2, Windows Server 2019, Windows 10, Solaris 11.3, Red Hat Enterprise Linux 8.1, Ubuntu Server 20.04
• JDK	• JDK 1.8.0, JDK 11, Ellipse IDE, Net, NetBeans 8.2

Source Code:

```
// Save:BasicOperation.java

import java.util.*;

class BasicOperation

{
        public static void main(String[] ars)

        {

        Scanner sc = new Scanner(System.in);

        Scanner scan = new Scanner(System.in);
        List <String> le = new ArrayList <String> ();

        le.add("Ram");
        le.add("Shyam");
        le.add("Krishna");

        boolean choice = true;

        do{
        System.out.println("Press 1 for add element: ");

        System.out.println("Press 2 for search an element: ");

        System.out.println("Press 3 for traverse the arrayList ");

        System.out.println("Press 4 for remove an element ");

        System.out.println("Press 5 for exit");

        System.out.println("Enter Your Choice: ");
        int caseBased = sc.nextInt();

        switch(caseBased){
```

case 1:

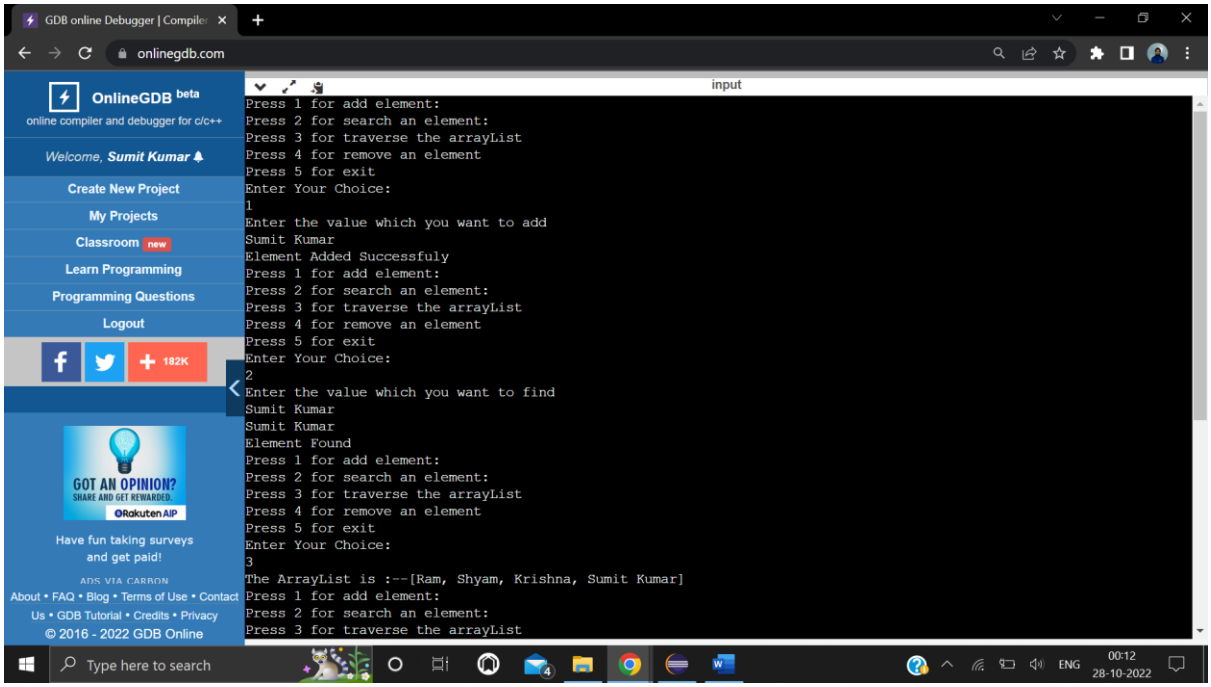
```
System.out.println("Enter the value which you want to add");

String ss = scan.nextLine();
le.add(ss);
System.out.println("Element Added Successfuly");

break;
```

case 2:

```
System.out.println("Enter the value which you want to find");

String target = scan.nextLine();
System.out.println(target);

boolean bb = false;

for(int i=0; i<le.size(); i++)

{

        if(target.equals(le.get(i))){
// bb = true;

System.out.println("Element Found");

break;
}
}

//System.out.println(bb);
// if(bb) System.out.println("Element Found");
// else System.out.println("Element Not Found");

break;
```

```
case 3:
        System.out.println("The ArrayList is :--" + le);

         break;

case 4:
        System.out.println("ArrayList before removing element \n" + le);

        System.out.println("Enter the value which you want to remove");

        String temp = scan.nextLine();
        for(int i=0; i<le.size(); i++)

        {

                if(temp.equals(le.get(i)))
                        {

                        le.remove(i);

                        break;
                }
        }
        System.out.println("Arraylist After Removing Element \n" + le);

        break;

case 5:
        choice = false; break;


        }
}

        while(choice);

        }

}
```

Output: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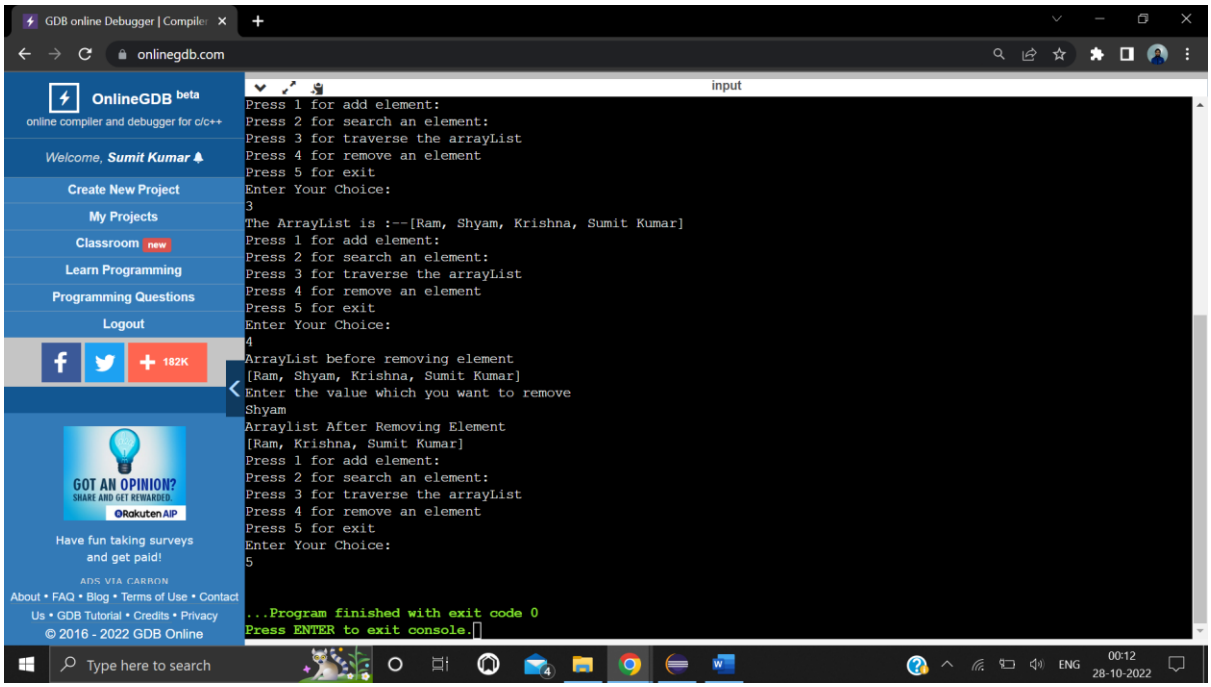
input
Press 1 for add element:
Press 2 for search an element:
Press 3 for traverse the arrayList
Press 4 for remove an element
Press 5 for exit
Enter Your Choice:
1
Enter the value which you want to add
Sumit Kumar
Element Added Successfuly
Press 1 for add element:
Press 2 for search an element:
Press 3 for traverse the arrayList
Press 4 for remove an element
Press 5 for exit
Enter Your Choice:
2
Enter the value which you want to find
Sumit Kumar
Sumit Kumar
Element Found
Press 1 for add element:
Press 2 for search an element:
Press 3 for traverse the arrayList
Press 4 for remove an element
Press 5 for exit
Enter Your Choice:
3
The ArrayList is :--[Ram, Shyam, Krishna, Sumit Kumar]
Press 1 for add element:
Press 2 for search an element:
Press 3 for traverse the arrayList
Type here to search
ENG
00:12
28-10-2022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input
Press 1 for add element:
Press 2 for search an element:
Press 3 for traverse the arrayList
Press 4 for remove an element
Press 5 for exit
Enter Your Choice:
3
The ArrayList is :--[Ram, Shyam, Krishna, Sumit Kumar]
Press 1 for add element:
Press 2 for search an element:
Press 3 for traverse the arrayList
Press 4 for remove an element
Press 5 for exit
Enter Your Choice:
4
ArrayList before removing element
[Ram, Shyam, Krishna, Sumit Kumar]
Enter the value which you want to remove
Shyam
Arraylist After Removing Element
[Ram, Krishna, Sumit Kumar]
Press 1 for add element:
Press 2 for search an element:
Press 3 for traverse the arrayList
Press 4 for remove an element
Press 5 for exit
Enter Your Choice:
5
...Program finished with exit code 0
Press ENTER to exit console.
Type here to search
ENG
00:12
28-10-2022

Learning outcomes:

1. We have implemented the list interface with using the ArrayList class.

2. Performed different types of operation like insertion of new element in ArrayList, removing an element from array list, traverse the ArrayList, search an element in the ArrayList etc.

3. Take the help of switch case statements in the program for implement the all operation in options like choices.

4. Used the string type of List interface implemented using the array list.