

LAB INDEX

NAME: Vivek Kumar

SUBJECTNAME: Project Based Learning in Java Lab

UID: 21BCS8129

SUBJECTCODE: 20CSP-314

SECTION: WM-20BCS-616/A

Sr. No	Program	Date	Evaluation				Sign
			LW (12)	VV (10)	FW (8)	Total (30)	
1	Create an application to save the employee information using arrays.	09-08-2022					
2	Design and implement a simple inventory control system for a small video rentalstore.	23-08-2022					
3	Create a application to calculate interest for FDs, RDs based on certain conditions using inheritance.	02-09-2022					
4	Create a program to show the usage of Sets of Collection interface.	27-09-2022					
5	Create a program to set view of Keys from Java Hashtable.	27-09-2022					
6	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.	04-10-2022					
7	Create a menu based Java application with the following options.1.Add an Employee2.Display All3.Exit If option 1 is selected, the application should gather details of the employee like employee name, employee id, designation and salary and store it in a file. If option 2 is selected, the application should display all the employee details. If option 3 is selected the application should exit.						
8	Create a palindrome creator application for making a longest possible palindrome out of given input string.						
9	Create a Servlet/ application with a facility to print any message on web browser.						
10	Create JSP application for addition, multiplication and division.						



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Submitted By: Vivek Kumar(21BCS8129)		Submitted To: Neeru Sharma(E12950)	
Subject Name	Project Based Learning in Java Lab		
Subject Code	20CSP-321		
Branch	Computer Science and Engineering		
Semester	5 th		

Experiment - 6

Student Name: Vivek Kumar**Branch: BE-CSE(LEET)****Semester: 5th****Subject Name: Project Based Learning in Java Lab****UID: 21BCS8129****Section/Group: 20BCS-WM-616/A****Date of Performance: 27/09/2022****Subject Code: 20CSP-321**

1. Aim/Overview of the practical:

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.

2. Task to be done/ Which logistics used:

Write the program to create an application to perform a List manipulation.

3. Software Requirements (For programming-based labs):

- JDK-8 or any
- Eclipse-IDE for Java

4. Steps for experiment/practical/Code:

```
package unit2;
```

```
import java.util.*;
```

```
import java.util.Scanner;
```

```
public class WorkSheet6 {  
    public static List<String> list=new ArrayList<String>();  
    void addItem(String item) {  
        list.add(item);  
    }  
    void displayItem() {  
        if(list.size()>0) {  
            for(String name:list)  
                System.out.println(name);  
        }else  
            System.out.println("List is Empty");  
    }  
    void searchItem(String item) {  
        if(list.size()>0) {  
            if(list.contains(item))  
                System.out.println(item+" is Present");  
            else  
                System.out.println(item+" is not Present");  
        }else  
            System.out.println("List is Empty");  
    }  
}
```

```
}  
void deleteItem(String item) {  
    if(list.size()>0) {  
        if(list.contains(item)) {  
            list.remove(item);  
            System.out.println(item+" is removed");  
        }else  
            System.out.println(item+" is not Present");  
    }else  
        System.out.println("List is Empty");  
}
```

```
public static void main(String[] args) {  
    WorkSheet6 obj = new WorkSheet6();  
    boolean flag=true;  
    String item;  
    int choice;  
    Scanner in = new Scanner(System.in);  
    while(flag) {  
        System.out.println("\nMAIN MENU");  
        System.out.println("*****");  
        System.out.println("1.Insert:");  
        System.out.println("2.Search:");  
        System.out.println("3.Delete:");  
        System.out.println("4.Display:");  
        System.out.println("5.Exit");  
        System.out.println("\nEnter your choice:");  
        choice = in.nextInt();  
        switch(choice)  
        {  
            case 1:  
            {  
                System.out.println("Enter the item: ");  
                item = in.next();  
                obj.addItem(item);  
                break;  
            }  
            case 2:  
            {  
                System.out.println("Enter the item: ");
```

```
        item = in.next();
        obj.searchItem(item);
    break;
    }
    case 3:
    {
        System.out.println("Enter the item: ");
        item = in.next();
        obj.deleteItem(item);
    break;
    }
    case 4:
    {
        System.out.println("\nElement of Lists are: ");
        obj.displayItem();
    break;
    }
    case 5:
    {
        System.out.println("Exiting...!! Thanks for using the application");
        flag=false;
        break;
    }
    default:
    {
        System.out.println("Wrong input!!");
    }
}
}
in.close();
}
```

5. Observations/Discussions/ Complexity Analysis:

Here we have created the List, and performed all the operation of list such as insertion, searching, deletion, and traversal.

6. Result/Output/Writing Summary:

```
Console X
WorkSheet6 [Java Application] C:\Program Files\Java\jdk-18.0.2.1\bin\javaw.exe (06-Oct-2022, 7:53:01 pm) [pid: 2552]

MAIN MENU
*****
1.Insert:
2.Search:
3.Delete:
4.Display:
5.Exit

Enter your choice:
1
Enter the item:
Vivek

MAIN MENU
*****
1.Insert:
2.Search:
3.Delete:
4.Display:
5.Exit

Enter your choice:
1
Enter the item:
Amar

MAIN MENU
*****
1.Insert:
2.Search:
3.Delete:
4.Display:
5.Exit

Enter your choice:
1
Enter the item:
Abhi

MAIN MENU
*****
1.Insert:
2.Search:
3.Delete:
4.Display:
5.Exit

Enter your choice:
```

```
Console X
WorkSheet6 [Java Application] C:\Program Files\Java\jdk-18.0.2.1\bin\javaw.exe (06-Oct-2022, 7:53:01 pm) [pid: 2552]

MAIN MENU
*****
1.Insert:
2.Search:
3.Delete:
4.Display:
5.Exit

Enter your choice:
4

Element of Lists are:
Vivek
Amar
Abhi

MAIN MENU
*****
1.Insert:
2.Search:
3.Delete:
4.Display:
5.Exit

Enter your choice:
2
Enter the item:
Amar
Amar is Present

MAIN MENU
*****
1.Insert:
2.Search:
3.Delete:
4.Display:
5.Exit

Enter your choice:
3
Enter the item:
Amar
Amar is removed

MAIN MENU
*****
1.Insert:
2.Search:
3.Delete:
4.Display:
5.Exit

Enter your choice:
4

Element of Lists are:
Vivek
Abhi

MAIN MENU
*****
1.Insert:
2.Search:
3.Delete:
4.Display:
5.Exit

Enter your choice:
5
Exiting...!! Thanks for using the application
```

Learning outcomes (What I have learnt):

1. Learnt while loop.
2. List manipulation concept understood.
3. Created list and performed all operation of list.
4. Learnt the concept of switch concept.
5. Learnt concept of inbuilt function in list.

Evaluation Grid (To be created per the faculty's SOP and Assessment guidelines):

Sr. No.	Parameters	Marks Obtained	Maximum Marks
1.	Worksheet completion including writing learning objectives/Outcomes. (To be submitted at the end of the day).		
2.	Post-Lab Quiz Result.		
3.	Student Engagement in Simulation/Demonstration/Performance and Controls/Pre-Lab Questions.		
	Signature of Faculty (with Date):	Total Marks Obtained:	