

Week-10

Collection- List

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Program 1:

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

public class Main{
    public static void main(String []args){
        Scanner scanner = new Scanner(System.in);
        int n = scanner.nextInt();
        ArrayList<Integer> list = new ArrayList<>();
        for (int i=0;i<n;i++){
            list.add(scanner.nextInt());
        }
        System.out.println("ArrayList: "+list);
        printFirstAndLast(list);

        scanner.close();
    }
    public static void printFirstAndLast(ArrayList<Integer>List){
        if(!List.isEmpty()){
            int first=List.get(0);
            int last=List.get(List.size()-1);
            System.out.println("First : "+ first +", Last : "+last);
        }else{
            System.out.println("The list is Empty");
        }
    }
}
```

Program 2:

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

public class Prog {
    public static void main(String[] args){
        Scanner sc= new Scanner(System.in);
        int n = sc.nextInt();
        ArrayList<Integer> list = new ArrayList<Integer>();
        for(int i = 0; i<n;i++){
            list.add(sc.nextInt());
        }
        System.out.println("ArrayList: " + list);
        list.set(1,100);
        System.out.println("Index of 100 = "+list.indexOf(100));
        System.out.println("LastIndex of 100 = "+list.lastIndexOf(100));
        System.out.println(list.contains(200));
        System.out.println("Size Of ArrayList = "+list.size());
        list.add(1,500);
        list.remove(3);
        System.out.print("ArrayList: " + list);

    }
}
```

Program 3:

```
import java.util.*;
public class Main{
    public static void main(String[] args){
        Scanner input = new Scanner(System.in);
```

```
List<String> list = new ArrayList<>();
int n = input.nextInt();
input.nextLine();
for(int i=0;i<n;i++){
    list.add(input.nextLine());
}
System.out.println("List before reversing :");
System.out.println(list);
Collections.reverse(list);
System.out.println("List after reversing :");
System.out.print(list);
}
}
```