OOPM
Programming Assignment number 04

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Problem statement:

Print the reverse of given ArrayList by using your own function.

//code

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

class Array_List {

   static ArrayList<Integer> reverseList(ArrayList<Integer> list) {
      ArrayList<Integer> revList = new ArrayList<Integer>();

      for (int i=(list.size()-1) ; i>=0 ; i--) {
         revList.add(list.get(i));
      }

      return revList;
   }

   public static void main(String args[]) {

      Scanner sc = new Scanner(System.in);

      ArrayList<Integer> list = new ArrayList<Integer>();
      int choice;

      while (true) {
         System.out.println("* 1.  ADD");
         System.out.println("* 2.  DISPLAY");
         System.out.println("* 3.  DISPLAY REVERSE");
         System.out.println("* 4.  EXIT!");
         System.out.print("Enter your choice :  ");
         choice = sc.nextInt();

         switch (choice) {

            case 1:
               System.out.print("Enter element to add :  ");
               list.add(sc.nextInt());
               break;

            case 2:
               System.out.print("Elements in the list are :  ");
               System.out.print(list);
```

```
                System.out.println();
                break;

            case 3:
                System.out.print("Reverse of list is :  ");
                ArrayList<Integer> revList = new ArrayList<Integer>();
                revList = reverseList(list);
                System.out.print(revList);
                System.out.println();
                break;

            case 4:
                System.out.println("*** E X I T I N G ***");
                System.exit(1);
                break;

            default:
                System.out.println("Invalid Input");
                break;
        }
      }
   }
}
```

// output

```
E:\Aamir\Sem-3\OOPM\ArrayList>javac Array_List.java

E:\Aamir\Sem-3\OOPM\ArrayList>java Array_List
* 1.  ADD
* 2.  DISPLAY
* 3.  DISPLAY REVERSE
* 4.  EXIT!
Enter your choice :  1
Enter element to add :  5
* 1.  ADD
* 2.  DISPLAY
* 3.  DISPLAY REVERSE
* 4.  EXIT!
Enter your choice :  1
Enter element to add :  10
* 1.  ADD
* 2.  DISPLAY
* 3.  DISPLAY REVERSE
* 4.  EXIT!
Enter your choice :  1
Enter element to add :  15
* 1.  ADD
* 2.  DISPLAY
* 3.  DISPLAY REVERSE
* 4.  EXIT!
Enter your choice :  2
Elements in the list are :  [5, 10, 15]
* 1.  ADD
* 2.  DISPLAY
* 3.  DISPLAY REVERSE
* 4.  EXIT!
Enter your choice :  3
Reverse of list is :  [15, 10, 5]
* 1.  ADD
* 2.  DISPLAY
* 3.  DISPLAY REVERSE
* 4.  EXIT!
Enter your choice :  4
*** E X I T I N G ***


E:\Aamir\Sem-3\OOPM\ArrayList>java Array_List
* 1.  ADD
* 2.  DISPLAY
* 3.  DISPLAY REVERSE
* 4.  EXIT!
Enter your choice :  1
Enter element to add :  123
* 1.  ADD
* 2.  DISPLAY
* 3.  DISPLAY REVERSE
* 4.  EXIT!
Enter your choice :  1
Enter element to add :  456
* 1.  ADD
* 2.  DISPLAY
* 3.  DISPLAY REVERSE
* 4.  EXIT!
Enter your choice :  1
Enter element to add :  789
* 1.  ADD
* 2.  DISPLAY
* 3.  DISPLAY REVERSE
* 4.  EXIT!
Enter your choice :  1
Enter element to add :  12
* 1.  ADD
* 2.  DISPLAY
* 3.  DISPLAY REVERSE
* 4.  EXIT!
Enter your choice :  2
Elements in the list are :  [123, 456, 789, 12]
* 1.  ADD
* 2.  DISPLAY
* 3.  DISPLAY REVERSE
* 4.  EXIT!
Enter your choice :  3
Reverse of list is :  [12, 789, 456, 123]
* 1.  ADD
* 2.  DISPLAY
* 3.  DISPLAY REVERSE
* 4.  EXIT!
Enter your choice :  4
*** E X I T I N G ***
```