***Assignment 2***

Name : Anjali

Batch : CJ1

Q1. "Write a Java program that takes an integer array as input and converts it into an ArrayList. The program should have a method called convertArrayToList that takes in the array as a parameter and returns the converted ArrayList.

The input for the program is an array {1, 2, 3, 4, 5}

The output of the program should be the ArrayList

[1, 2, 3, 4, 5] after the conversion."

Code:

import java.util.ArrayList;  
import java.util.Scanner;  
  
public class ArrayToArrayList {  
 public static void arrayToArrayList(int arr[], int n){  
 ArrayList<Integer> arrList = new ArrayList<Integer>();  
 for(int i=0;i<n;i++){  
 arrList.add(arr[i]);  
 }  
 System.*out*.print(**"Arraylist : "**);  
 System.*out*.println(arrList);  
 }  
 public static void main(String[] args) {  
 Scanner sc = new Scanner(System.*in*);  
 System.*out*.print(**"Enter the size of the array : "**);  
 int n = sc.nextInt();  
 int arr[] = new int[n];  
 System.*out*.println(**"Enter the elements"**);  
 for (int i=0;i<n;i++){  
 arr[i] = sc.nextInt();  
 }  
 System.*out*.print(**"Array elements : "**);  
 for (int i=0;i<n;i++){  
 System.*out*.print(arr[i] + **" "**);  
 }  
 System.*out*.println();  
 *arrayToArrayList*(arr,n);  
 }  
}

Q2. Write a program to Print all the elements of a collection in Java.

Code:

import java.util.\*;  
  
public class PrintElement {  
 public static void main(String[] args) {  
 ArrayList<Integer> arrayList = new ArrayList<Integer>();  
 arrayList.add(1);  
 arrayList.add(2);  
 arrayList.add(12);  
 arrayList.add(6);  
 arrayList.add(9);  
 arrayList.add(1);  
 arrayList.add(10);  
 arrayList.add(56);  
 // we will use for loop to printing  
 System.*out*.print(**"Method 1 : "**);  
 for(int i=0;i<arrayList.size();i++){  
 System.*out*.print(arrayList.get(i) + **" "**);  
 }  
 System.*out*.println();  
 System.*out*.print(**"Method 2 : "**);  
 System.*out*.println(arrayList);  
 }  
}

Q3. Write a program in java to join two arraylists into one arraylist.

Code:

import java.util.\*;  
public class JoinArrList {  
 public static void main(String[] args) {  
 ArrayList<Integer> arrList1 = new ArrayList<Integer>();  
 ArrayList<Integer> arrList2 = new ArrayList<Integer>();  
 ArrayList<Integer> arrList3 = new ArrayList<Integer>();  
 arrList1.add(1);  
 arrList1.add(2);  
 arrList1.add(3);  
 arrList1.add(4);  
 arrList1.add(5);  
 arrList2.add(6);  
 arrList2.add(7);  
 arrList2.add(8);  
 arrList2.add(9);  
 arrList2.add(10);  
 System.*out*.print(**"ArrayList 1 : "**);  
 System.*out*.println(arrList1);  
 System.*out*.print(**"ArrayList 2 : "**);  
 System.*out*.println(arrList2);  
 arrList3.addAll(arrList1);  
 arrList3.addAll(arrList2);  
 System.*out*.print(**"ArrayList 3 : "**);  
 System.*out*.println(arrList3);  
 }  
}

Q4. Write a program in java make a arraylist and do certain operation

1. reverse the arraylist

2. sort the arraylist.

3. remove elements of arraylist.

Code:

import java.util.\*;  
public class ReveseArrayList {  
 public static void main(String[] args) {  
 ArrayList<Integer> arrList = new ArrayList<Integer>();  
 arrList.add(5);  
 arrList.add(7);  
 arrList.add(4);  
 arrList.add(12);  
 arrList.add(11);  
 arrList.add(3);  
 arrList.add(9);  
 System.*out*.println(**"Actual arrayList"**);  
 System.*out*.println(arrList);  
 Collections.*reverse*(arrList);  
 System.*out*.println(**"Reversed arrayList"**);  
 System.*out*.println(arrList);  
 Collections.*sort*(arrList);  
 System.*out*.println(**"Sorted arrayList"**);  
 System.*out*.println(arrList);  
 arrList.remove(4); // this will remove the element at index 4  
 System.*out*.println(**"ArrayList after removing 4th index element"**);  
 System.*out*.println(arrList);  
 }  
}