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Programming Assignment 2a:

```
import java.util.ArrayList;

public class Arraylist1
{
	public static void main(String args[])
	{

		ArrayList<String> arrayObj = new ArrayList<String>();

		arrayObj.add("Bob");
		arrayObj.add("Mary");
		arrayObj.add("John");
		arrayObj.add("Amy");
		arrayObj.add("Steve");

		System.out.println("The array list currently has the following objects: " +
arrayObj);

		arrayObj.add(4, "Vitor");
		arrayObj.add(1, "Michael");

		arrayObj.remove("Bob");
		arrayObj.remove("Amy");


		System.out.println("Now the array list currently has the following objects: " +
arrayObj);

		arrayObj.remove(2);

		System.out.println("After removing object at index 2, the array list currently has
the following objects: " + arrayObj);
	}
```

```
}
```

Programming Assignment 2b:

```
import java.io.BufferedReader;
import java.io.IOException;
import java.io.InputStreamReader;
import java.util.ArrayList;

public class Arraylist2
{
	public static void main(String args[]) throws IOException
	{
		BufferedReader input = new BufferedReader(new
InputStreamReader(System.in));

		ArrayList<String> arrayList = new ArrayList<String>();

		arrayList.add("USA");
		arrayList.add("Brazil");
		arrayList.add("Canada");
		arrayList.add("Mexico");
		arrayList.add("England");
		arrayList.add("Iceland");
		arrayList.add("Moroco");
		arrayList.add("Australia");
		arrayList.add("China");
		arrayList.add("Poland");

		System.out.println("Vacation Country Advisor!!");
		System.out.println("Enter your name");
		String userName = input.readLine();
		int nameLength = userName.length();

		while (nameLength == 0)
		{
			System.out.println("No name inputed, please enter a name");
```

```
                userName = input.readLine();
                nameLength = userName.length();
            }

            int vacationIndex = nameLength % arrayList.size();
            System.out.println("vacationIndex: " + vacationIndex);

            System.out.println("\nYour name is " + userName + ", its length is " +
nameLength + " characters, \n" + "given that we suggest that you travel to the country of " +
arrayList.get(vacationIndex));


        }
}
```

Programming Assignment 2c:

```
package linkedlist1;
import java.util.*;
/**
 *
 * @author Michael
 */
public class LinkedList1 {

    /**
     * @param args the command line arguments
     */
    public static void main(String[] args) {
        // TODO code application logic here
        LinkedList<String> linkedlist = new LinkedList<String>();

        linkedlist.add("Potato");
        linkedlist.add("Onion");
        linkedlist.add("Carrot");
        linkedlist.add("Lettuce");
        linkedlist.add("Broccoli");
```

```
        System.out.println("Linked List Content: " + linkedlist);

        linkedlist.addFirst("Artichoke");
        linkedlist.addLast("Corn");
        System.out.println("LinkedList Content after addition: " + linkedlist);

        Object firstvar = linkedlist.get(0);
        System.out.println("First element:" + firstvar);
        linkedlist.set(0, "Changed first vegetable");
        Object firstvar2 = linkedlist.get(0);

        System.out.println("First element after update by set method: " + firstvar2);

        linkedlist.removeFirst();
        linkedlist.removeLast();
        System.out.println("LinkedList after deletion of first and last element: " + linkedlist);

        linkedlist.add(0, "Celery");
        linkedlist.remove(2);
        System.out.println("Final Content: " + linkedlist);
    }

}
```

Programming Assignment 2d:

```
package linkedlist2;
import java.util.LinkedList;
/**
 *
 * @author Michael
 */
public class LinkedList2 {

    /**
     * @param args the command line arguments
     */
```

```
    public static void main(String[] args) {
        // TODO code application logic here
        LinkedList<String> lList = new LinkedList<String>();

        lList.add("Apple");
        lList.add("Pear");
        lList.add("Banana");
        lList.add("Orange");
        lList.add("Peach");

        System.out.println("LinkedList contains : " + lList);

        Object object = lList.removeFirst();
        System.out.println(object + " has been removed from the first index of LinkedList");
        System.out.println("LinkedList now contains :" + lList);

        object = lList.removeLast();
        System.out.println(object + " has been removed from the last index of LinkedList");

        System.out.println("LinkedList now contains : " + lList);
    }

}
```

Programming Challenge:

```
import java.io.BufferedReader;
import java.io.IOException;
import java.io.InputStreamReader;
import java.util.ArrayList;

public class FoodVegetableOrder {

        public static void main(String args[]) throws IOException
        {
```

```
		BufferedReader input = new BufferedReader(new
InputStreamReader(System.in));
		ArrayList<String> cart = new ArrayList<String>();

		String[] vegetableSupply = {"Potato", "Carrot", "Onion", "Lettuce", "Corn"};

		System.out.println("From the following selection of vegetables which one would
you like to order into your shopping cart? ");


		for( String name : vegetableSupply )
		{
			System.out.print( name );
			System.out.print(", ");
		}

		System.out.println("\n");

		String vegetableOrder = input.readLine();

		//Do while loop to check if user input is one of the available vegetables

		System.out.println("How many of that vegetable would you like to order?");
		String stringAmount = input.readLine();
		int vegetableAmount = Integer.parseInt(stringAmount);

		for(int i = 0; i < vegetableAmount; i++)
		{
			cart.add(vegetableOrder);
		}

		System.out.println("Your cart currently has: " + cart);

		System.out.println("Please enter the index of the item you would like to
remove:");
		int removalIndex = Integer.parseInt(input.readLine());

		cart.remove(removalIndex);
```

```
                System.out.println("After the removal at index "+ removalIndex + " your cart currently has: " + cart);

                //while()

        }

}
```