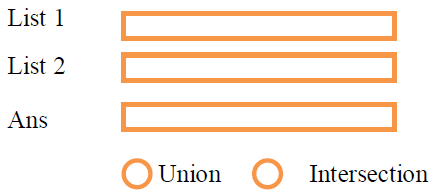
6) Write an Android code to complete the following Array/List operations

1. Union 2. Intersection

  
  
  
Ans: -

Union\_Intersection.java  
package com.example.collge\_practice;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.util.Log;

import android.view.View;

import android.widget.EditText;

import android.widget.RadioButton;

import android.widget.TextView;

import java.util.\*;

import java.util.Arrays;

public class Operations extends AppCompatActivity {

private RadioButton intersection;

private RadioButton union;

private EditText list1;

private EditText list2;

private TextView viewer;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_operations);

// find view by id start

union = findViewById(R.id.union);

intersection = findViewById(R.id.intersection);

list1 = findViewById(R.id.list1);

list2 = findViewById(R.id.list2);

viewer = findViewById(R.id.answer);

// find view by id closed

union.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v)

{

// value set part start

String arr1[]= list1.getText().toString().split(" ");

String arr2[]= list2.getText().toString().split(" ");

int intarr1[] = new int[arr1.length];

int intarr2[] = new int[arr2.length];

for (int i = 0; i < arr1.length; i++) // making array 1

{

intarr1[i]=Integer.parseInt(arr1[i]);

}

for (int i = 0; i < arr2.length; i++) // making array 2

{

intarr2[i]=Integer.parseInt(arr2[i]);

}

// value set part end

// hashset start

HashSet lh = new HashSet();

for (int i = 0; i < intarr1.length ; i++) // adding array1 elements in hashset

{

lh.add(intarr1[i]);

}

for (int i = 0; i < intarr2.length ; i++) // adding array2 elements in hashset

{

lh.add(intarr2[i]);

}

Object[] objunion = new Object[lh.size()]; // creating object for hashset element conversion

objunion = lh.toArray();

int union[] = new int[objunion.length]; // union array for strong int element

for (int i = 0; i < objunion.length; i++)

{

union[i] = Integer.parseInt(objunion[i].toString());

}

viewer.setText(Arrays.toString(union)); // setting text to TextView

}

});

intersection.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

String arr1[]= list1.getText().toString().split(" ");

String arr2[]= list2.getText().toString().split(" ");

int intarr1[] = new int[arr1.length];

int intarr2[] = new int[arr2.length];

for (int i = 0; i < arr1.length; i++) // making array 1

{

intarr1[i]=Integer.parseInt(arr1[i]);

}

for (int i = 0; i < arr2.length; i++) // making array 2

{

intarr2[i]=Integer.parseInt(arr2[i]);

}

// value set part end

int len=0;

for (int i = 0; i < intarr1.length; i++) {

for (int j = 0; j < intarr2.length ; j++) {

if(intarr1[i] == intarr2[j])

{

len++;

}

}

}

int intersect[] = new int[len]; // union array for strong int element

int k=0;

for (int i = 0; i < intarr1.length; i++) {

for (int j = 0; j < intarr2.length ; j++) {

if(intarr1[i] == intarr2[j])

{

intersect[k++] = intarr1[i];

}

}

}

viewer.setText(Arrays.toString(intersect)); // setting text to TextView

}

});

}

}  
  
activity\_union\_Intersection.xml  
  
<?xml version="1.0" encoding="utf-8"?>

<androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"

xmlns:app="http://schemas.android.com/apk/res-auto"

xmlns:tools="http://schemas.android.com/tools"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

tools:context=".Operations">

<EditText

android:id="@+id/list1"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:autofillHints=""

android:ems="10"

android:hint="@string/enter\_list\_1"

android:inputType="textPersonName"

android:minHeight="48dp"

android:textColorHint="#757575"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.497"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.163" />

<EditText

android:id="@+id/list2"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="64dp"

android:autofillHints=""

android:ems="10"

android:hint="@string/enter\_list\_2"

android:inputType="textPersonName"

android:minHeight="48dp"

android:textColorHint="#757575"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.497"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/list1"

app:layout\_constraintVertical\_bias="0.0" />

<RadioGroup

android:id="@+id/radioGroup"

android:layout\_width="172dp"

android:layout\_height="97dp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.499">

<RadioButton

android:id="@+id/union"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="@string/union" />

<RadioButton

android:id="@+id/intersection"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="@string/intersection" />

</RadioGroup>

<TextView

android:id="@+id/answer"

android:layout\_width="366dp"

android:layout\_height="61dp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.5"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toBottomOf="@+id/radioGroup"

app:layout\_constraintVertical\_bias="0.394" />

</androidx.constraintlayout.widget.ConstraintLayout>