

Minesweeper Android Starter

XML

Cut and Paste this code.

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent">
    <ImageView
        android:id="@+id/picture"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:scaleType="center"
        android:src="@drawable/background_image" />
    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_gravity="center"
        android:orientation="horizontal">
        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_gravity="center"
            android:orientation="vertical">
            <TextView
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:layout_gravity="center"
                android:text="Minesweeper"
                android:textColor="#FFFFFF"
                android:textSize="30dp" />
            <LinearLayout
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:layout_gravity="center_horizontal"
                android:orientation="horizontal">
                <Button
                    android:layout_width="wrap_content"
                    android:layout_height="wrap_content"
                    android:layout_gravity="center"
                    android:layout_margin="10dp"
                    android:id="@+id/flag"
                    android:onClick="flag"
                    android:text="Flag: No"/>
                <Button
                    android:layout_width="wrap_content"
                    android:layout_height="wrap_content"
                    android:layout_gravity="center"
```

```
        android:layout_margin="10dp"
        android:id="@+id/splash"
        android:onClick="splash"
        android:text="Splash"/>
<Button
    android:layout_width="wrap_content"
    android:layout_gravity="center"
    android:layout_height="wrap_content"
    android:layout_margin="10dp"
    android:id="@+id/instructions"
    android:onClick="instructions"
    android:text="Instructions"/>
</LinearLayout>

<GridLayout
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:id="@+id/grid"
    android:layout_gravity="center"
    android:columnCount="15"
    android:rowCount="18">

</GridLayout>
</LinearLayout>
</LinearLayout>
</RelativeLayout>
```

Java

Do **not** cut and paste this code.

Leave the highlighted sections

```
package com.example.myapplication;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.view.View;
import android.widget.GridLayout;
import android.widget.ImageView;

public class MainActivity extends AppCompatActivity {
```

```

boolean flagOn = false;
//grid
int row = 18;
int col = 15;
ImageView a[] = new ImageView[row * col];
int b[] [] = new int [row] [col];
int show[] [] = new int [row] [col];
int flags[] [] = new int [row] [col];

```

```

@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);

```

```

    GridLayout g = (GridLayout) findViewById(R.id.grid);
    int m = 0;
    for (int i = 0; i < row; i++) {
        for (int j = 0; j < col; j++) {
            a[m] = new ImageView(this);
            setpicStart(a[m], m);
            a[m].setId(m);
            //TO DO: add in this code for the onClick and actionListener
            a[m].setOnClickListener(new View.OnClickListener() {
                @Override
                public void onClick(View v) {
                    gridButtonClick(v.getId());
                }
            });
            g.addView(a[m]);
            m++;
        }
    }
}

```

```

public void setpicStart(ImageView i, int pos){
    int x = pos/col;
    int y = pos%col;
    //TO DO: fix so that your tracking array's numbers match your pictures
    if (show [x] [y] == 0 && flags [x] [y] == 0)
        a[pos].setImageResource(R.drawable.cover);

```

```

}
public void gridButtonClick(int pos) {
    int x = pos / col;
    int y = pos % col;
    //TO DO: code as needed to process a button click
}

```

```

public void redraw() {
    int m = 0;
    for (int i = 0; i < row; i++) {
        for (int j = 0; j < col; j++) {
            //TO DO: fix so that your tracking array's numbers match your pictures
            if (show [i] [j] == 0 && flags [i] [j] == 0)

```

```
a[m].setImageResource(R.drawable.cover);
```

```
    m++;
```

```
  }
```

```
}
```

```
}
```

```
}
```