Facultatea Calculatoare, Informatica si Microelectronica

Universitatea Tehnica a Moldovei

Medii Interactive de Dezvoltare a Produselor Soft

Lucrarea de laborator#4

Dezvoltarea unei aplicatii mobile

lector asistent:
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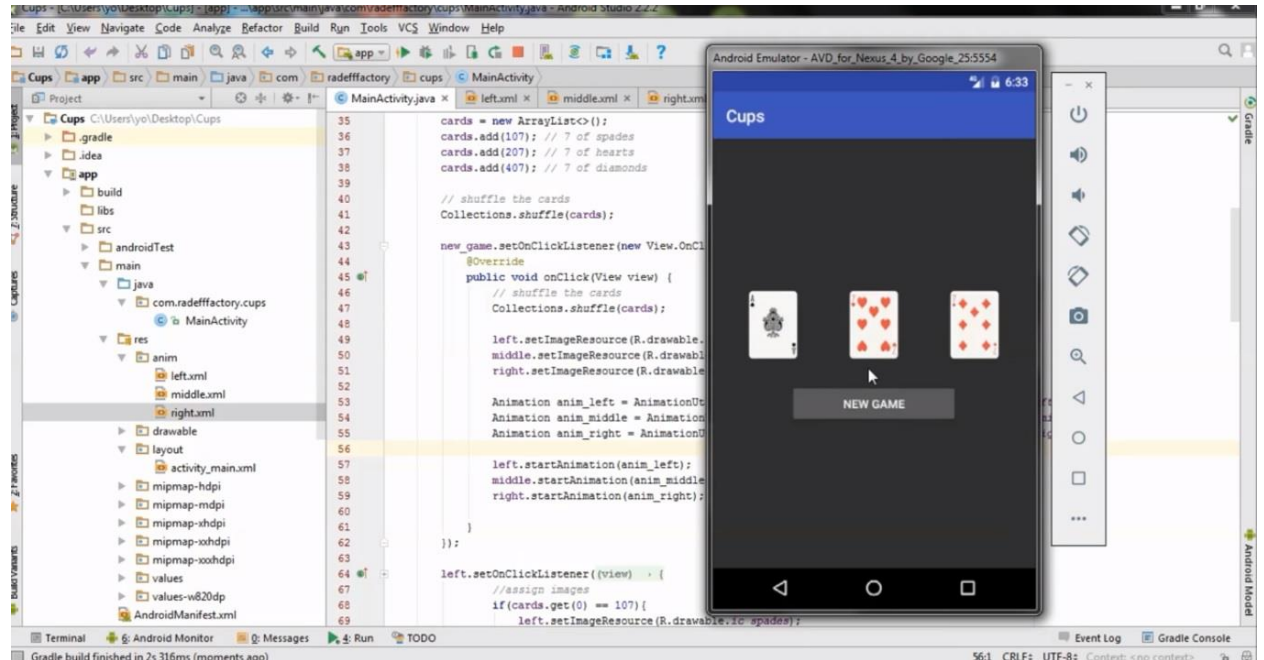*lector superior:*
Radu Melnic

2017

Obiective:

- Cunostinte de baza privind arhitectura unei aplicatii mobile
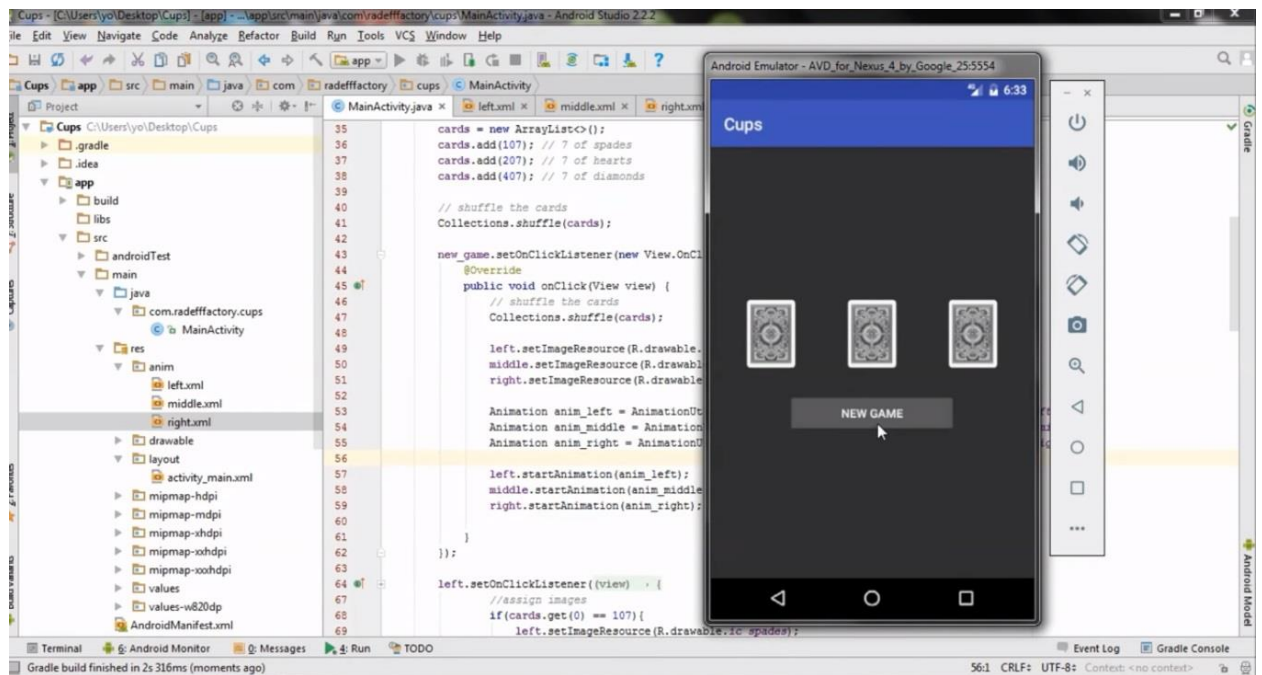- Cunostinte de baza ale platformei SDK

Sarcina:

Elaboreaza o aplicatie sofisticata la alegere.

IDE-ul folosit:**Android Studio**

Screenshot-urile cu proiectul in Android Studio:

Listingul programului:

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:gravity="center"
    android:orientation="horizontal"
    tools:context="com.example.dan.cups.MainActivity">

    <ImageView
        android:id="@+id/left"
        android:layout_marginRight="60dp"
        android:layout_width="60dp"
        android:src="@drawable/cardback"
        android:layout_height="100dp" />

    <ImageView
        android:id="@+id/middle"
        android:layout_width="60dp"
        android:src="@drawable/cardback"
        android:layout_height="100dp" />
    <ImageView
        android:id="@+id/right"
        android:layout_width="60dp"
        android:src="@drawable/cardback"
        android:layout_height="100dp" />
```

```xml
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello World!"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

</LinearLayout>
```

MainActivity.java

```java
public class MainActivity extends AppCompatActivity {

    ImageView left, middle, right;
    List<Integer> cards;

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

        left = (ImageView) findViewById(R.id.left);
        middle = (ImageView) findViewById(R.id.middle);
        right = (ImageView) findViewById(R.id.right);

        cards = new ArrayList<>();
        cards.add(107);// 7 de verde
        cards.add(207);//7 de rosu
        cards.add(407);//7 de doba

        //amestecarea cartilor

        Collection.shuffle(cards);

        left.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) }


                //assign images

        if (cards.get(0) == 107) {
            left.setImageResource(R.drawable.verde);
            Toast.makeText(MainActivity.this "Guessed", Toast.LENGTH_SHORT).show();
        } else if (cards.get(0) == 207) {
            left.setImageResource(R.drawable.rosu);
```

```java
        } else if (cards.get(0) == 407)
    }

    }

        );

        middle.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) }

        //assign images

        if (cards.get(0) == 107) {
        middle.setImageResource(R.drawable.verde);
        Toast.makeText(MainActivity.this "Guessed", Toast.LENGTH_SHORT).show();
        } else if (cards.get(0) == 207) {
        middle.setImageResource(R.drawable.rosu);
        } else if (cards.get(0) == 407) {
        middle.setImageResource(R.drawable.doba);
        }

}

        );

        right.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) }

        //assign images
        if(cards.get(0) == 107){
        right.setImageResource(R.drawable.verde);
        Toast.makeText(MainActivity.this "Guessed", Toast.LENGTH_SHORT).show();
        } else  if(cards.get(0) == 207){
        right.setImageResource(R.drawable.rosu);
        } else  if(cards.get(0) == 407) {
        right.setImageResource(R.drawable.doba);
        }

        }
        );




        }


}
```

Concluzie:

In urma efectuarii lucrarii de laborator, am facut cunostinta cu un nou IDE:Android Studio.Am creat o aplicatie android-un mic joc.Am studia structura unei aplicatii android.Am explorat elementele de interfata grafica a softului.Am folosit mai multe tipuri de android emulator.Am utilizat in aplicatie Button,Image View.