**Animation**

Chạy animation

block = findViewById(R.id.*block*);

Animation anim = AnimationUtils.*loadAnimation*(getApplicationContext(),R.anim.*zoom\_in*);  
block.startAnimation(anim);

### Fade In Animation

<set xmlns:android="http://schemas.android.com/apk/res/android"  
 android:fillAfter="true" >  
 <alpha  
 android:duration="1000"  
 android:fromAlpha="0.0"  
 android:interpolator="@android:anim/accelerate\_interpolator"  
 android:toAlpha="1.0" />  
</set>

### Fade Out Animation

<set xmlns:android="http://schemas.android.com/apk/res/android"  
 android:fillAfter="true" >  
  
 <alpha  
 android:duration="1000"  
 android:fromAlpha="1.0"  
 android:interpolator="@android:anim/accelerate\_interpolator"  
 android:toAlpha="0.0" />  
</set>

### Blink Animation

<set xmlns:android="http://schemas.android.com/apk/res/android">  
 <alpha android:fromAlpha="0.0"  
 android:toAlpha="1.0"  
 android:interpolator="@android:anim/accelerate\_interpolator"  
 android:duration="600"  
 android:repeatMode="reverse"  
 android:repeatCount="infinite"/>  
</set>

### Zoom In Animation

<set xmlns:android="http://schemas.android.com/apk/res/android"  
 android:fillAfter="true" >  
  
 <scale  
 xmlns:android="http://schemas.android.com/apk/res/android"  
 android:duration="1000"  
 android:fromXScale="1"  
 android:fromYScale="1"  
 android:pivotX="50%"  
 android:pivotY="50%"  
 android:toXScale="3"  
 android:toYScale="3" >  
 </scale>  
  
</set>

### Zoom Out Animation

<set xmlns:android="http://schemas.android.com/apk/res/android"  
 android:fillAfter="true" >  
  
 <scale  
 xmlns:android="http://schemas.android.com/apk/res/android"  
 android:duration="1000"  
 android:fromXScale="1.0"  
 android:fromYScale="1.0"  
 android:pivotX="50%"  
 android:pivotY="50%"  
 android:toXScale="0.5"  
 android:toYScale="0.5" >  
 </scale>  
  
</set>

### Rotate Animation

<set xmlns:android="http://schemas.android.com/apk/res/android">  
 <rotate android:fromDegrees="0"  
 android:toDegrees="360"  
 android:pivotX="50%"  
 android:pivotY="50%"  
 android:duration="600"  
 android:repeatMode="restart"  
 android:repeatCount="infinite"  
 android:interpolator="@android:anim/cycle\_interpolator"/>  
  
</set>

### Move Animation

<set  
 xmlns:android="http://schemas.android.com/apk/res/android"  
 android:interpolator="@android:anim/linear\_interpolator"  
 android:fillAfter="true">  
  
 <translate  
 android:fromXDelta="0%p"  
 android:toXDelta="75%p"  
 android:duration="800" />  
</set>

### Slide Up Animation

<set xmlns:android="http://schemas.android.com/apk/res/android"  
 android:fillAfter="true" >  
 <scale  
 android:duration="500"  
 android:fromXScale="1.0"  
 android:fromYScale="1.0"  
 android:interpolator="@android:anim/linear\_interpolator"  
 android:toXScale="1.0"  
 android:toYScale="0.0" />  
</set>

### Slide Down Animation

<set xmlns:android="http://schemas.android.com/apk/res/android"  
 android:fillAfter="true">  
  
 <scale  
 android:duration="500"  
 android:fromXScale="1.0"  
 android:fromYScale="0.0"  
 android:toXScale="1.0"  
 android:toYScale="1.0" />  
  
</set>

### Bounce Animation

<set xmlns:android="http://schemas.android.com/apk/res/android"  
 android:fillAfter="true"  
 android:interpolator="@android:anim/bounce\_interpolator">  
  
 <scale  
 android:duration="500"  
 android:fromXScale="1.0"  
 android:fromYScale="0.0"  
 android:toXScale="1.0"  
 android:toYScale="1.0" />  
  
</set>

### Sequential Animation

<set xmlns:android="http://schemas.android.com/apk/res/android"  
 android:fillAfter="true"  
 android:interpolator="@android:anim/linear\_interpolator" >  
   
 *<!-- Move -->* <translate  
 android:duration="800"  
 android:fillAfter="true"  
 android:fromXDelta="0%p"  
 android:startOffset="300"  
 android:toXDelta="75%p" />  
 <translate  
 android:duration="800"  
 android:fillAfter="true"  
 android:fromYDelta="0%p"  
 android:startOffset="1100"  
 android:toYDelta="70%p" />  
 <translate  
 android:duration="800"  
 android:fillAfter="true"  
 android:fromXDelta="0%p"  
 android:startOffset="1900"  
 android:toXDelta="-75%p" />  
 <translate  
 android:duration="800"  
 android:fillAfter="true"  
 android:fromYDelta="0%p"  
 android:startOffset="2700"  
 android:toYDelta="-70%p" />  
  
 *<!-- Rotate 360 degrees -->* <rotate  
 android:duration="1000"  
 android:fromDegrees="0"  
 android:interpolator="@android:anim/cycle\_interpolator"  
 android:pivotX="50%"  
 android:pivotY="50%"  
 android:startOffset="3800"  
 android:repeatCount="infinite"  
 android:repeatMode="restart"  
 android:toDegrees="360" />  
</set>

### Together Animation

<set xmlns:android="http://schemas.android.com/apk/res/android"  
 android:fillAfter="true"  
 android:interpolator="@android:anim/linear\_interpolator" >  
  
 *<!-- Move -->* <scale  
 xmlns:android="http://schemas.android.com/apk/res/android"  
 android:duration="4000"  
 android:fromXScale="1"  
 android:fromYScale="1"  
 android:pivotX="50%"  
 android:pivotY="50%"  
 android:toXScale="4"  
 android:toYScale="4" >  
 </scale>  
  
 *<!-- Rotate 180 degrees -->* <rotate  
 android:duration="500"  
 android:fromDegrees="0"  
 android:pivotX="50%"  
 android:pivotY="50%"  
 android:repeatCount="infinite"  
 android:repeatMode="restart"  
 android:toDegrees="360" />  
</set>

**Intent**

A -> B

Intent intent = new Intent(A.this ,B.class);  
startActivityForResult(intent,123);

B trả kq về A

Intent intent = new Intent();  
Bundle bundle = new Bundle();  
bundle.putString("email",email);  
bundle.putString("password",password);  
intent.putExtra("taikhoan",bundle);  
setResult(*RESULT\_OK*,intent);  
finish();

A nhận kq và xử lý

@Override  
protected void onActivityResult(int requestCode, int resultCode, @Nullable Intent data) {  
 super.onActivityResult(requestCode, resultCode, data);  
 if(resultCode == *RESULT\_OK* && requestCode == 123){  
 Bundle bundle = data.getBundleExtra("taikhoan");  
 *CapNhatTK*(bundle.getString("email"),bundle.getString("password"));  
 }  
}

**SharedPrefereces**

SharedPreferences *preferences =* getSharedPreferences("ABC", *MODE\_PRIVATE*);

SharedPreferences.Editor editor = *preferences*.edit();

**Custom alertdialog**

AlertDialog.Builder builder = new AlertDialog.Builder(MainActivity.this);  
AlertDialog dialog = builder.create();  
View view = getLayoutInflater().inflate(R.layout.*dialog*,null);  
dialog.setView(view);  
dialog.setTitle("Custom dialog");

// Ánh xạ trong dialog

dialog.show();

**ArrayList**

Collections.sort(list)

Collections.sort(list,Collections.reverseOrder());

**Spinner**

ArrayAdapter adapter = new ArrayAdapter(this, android.R.layout.*simple\_spinner\_item*, list);  
adapter.setDropDownViewResource(android.R.layout.*select\_dialog\_item*);  
spinner.setAdapter(adapter);

**Custom dialog**

Dialog dialog = new Dialog(QLTS.this);  
dialog.setContentView(R.layout.*phong\_dialog*);  
dialog.setTitle("Title");  
EditText edt = dialog.findViewById(R.id.*edtTenP*);  
Button btn = dialog.findViewById(R.id.*btnThemP*);  
btn.setOnClickListener()  
dialog.show();

Regex

Email ^[a-zA-Z0-9+\_.-][+@(.+)$](mailto:+@(.+)$)

Pass ^(?=.\*[A-Z])(?=.\*[a-z])(?=.\*\d)(?=.\*[@$!%\*#?&\_])[A-Za-z\d@$!%\*#?&\_]{3,}$

Number ^-?((\d+\.?\d\*)|(\d\*\.\d+))$

Tên: ^[a-zA-Z]{2,}(\s[a-zA-Z]+)$