

KIV/MKZ, CVIČENÍ 3

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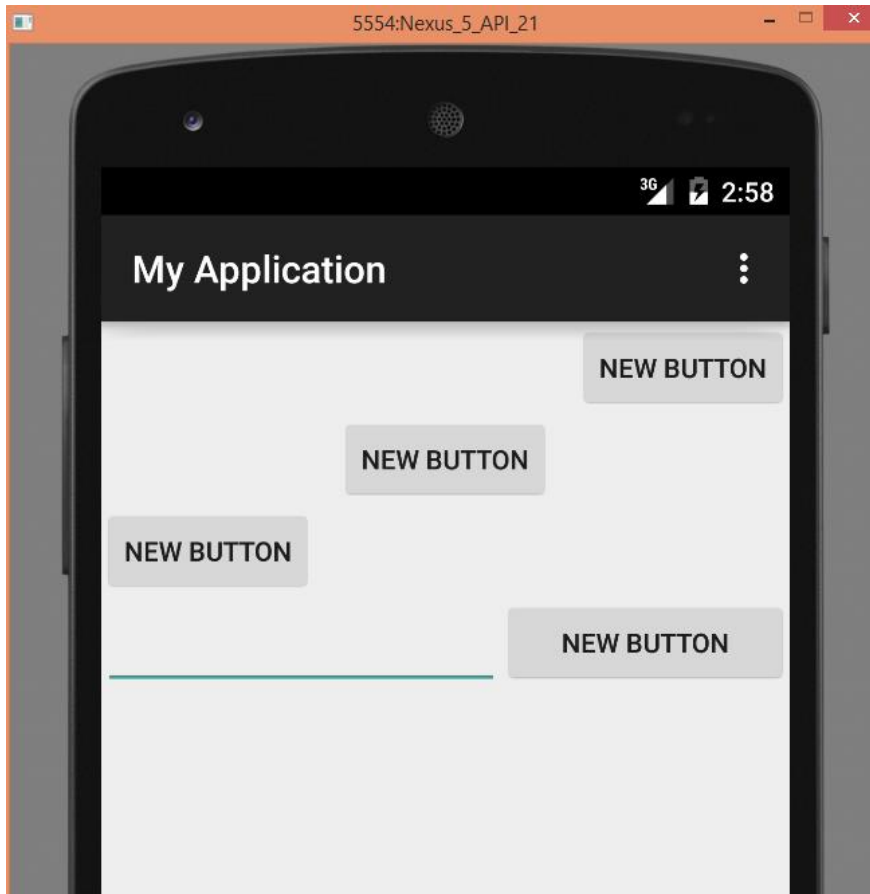
CO VYZKOUŠÍME

- Použití různých layoutů
- UI - radiobuttons a radiogroups
- Dialog s využitím DialogBuilderu
- Kontextové menu

LINEAR LAYOUT

- Vytvoříme nový layout
 - Linear layout vertical (položky pod sebe)
- Můžeme vnořit další layout
 - Linear layout horizontal (položky vedle sebe)

LINEAR LAYOUT - UKÁZKA



2 x linear layout

Vnější - prvky pod sebe

Vnitřní - prvky vedle sebe

XML AKTIVITY

```
<?xml version="1.0" encoding="utf-8"?>
```

```
<LinearLayout  
xmlns:android="http://schemas.android.com/apk/res/android"  
    android:orientation="vertical" android:layout_width="match_parent"  
    android:layout_height="match_parent"  
    android:weightSum="1">
```

..... vložení 3 tlačítek

```
<LinearLayout  
    android:orientation="horizontal"  
    android:layout_width="match_parent"  
    android:layout_height="wrap_content"  
    android:layout_weight="0.09">
```

..... vložení textového pole a tlačítka

```
</LinearLayout>  
</LinearLayout>
```

LAYOUT_GRAVITY

- CENTROVÁNÍ TLAČÍTEK

<Button

```
android:layout_width="wrap_content"  
android:layout_height="wrap_content"  
android:layout_gravity="right"  
android:text="New Button"  
android:id="@+id/button" />
```

<Button

```
android:layout_width="wrap_content"  
android:layout_height="wrap_content"  
android:layout_gravity="center"  
android:text="New Button"  
android:id="@+id/button2" />
```

<Button

```
android:layout_width="wrap_content"  
android:layout_height="wrap_content"  
android:text="New Button"  
android:id="@+id/button3" />
```

POMĚR PROSTORU ZABRANĚHO PRVKY - WEIGHT

<LinearLayout

```
android:orientation="horizontal"  
android:layout_width="match_parent"  
android:layout_height="wrap_content"  
android:layout_weight="0.09">
```

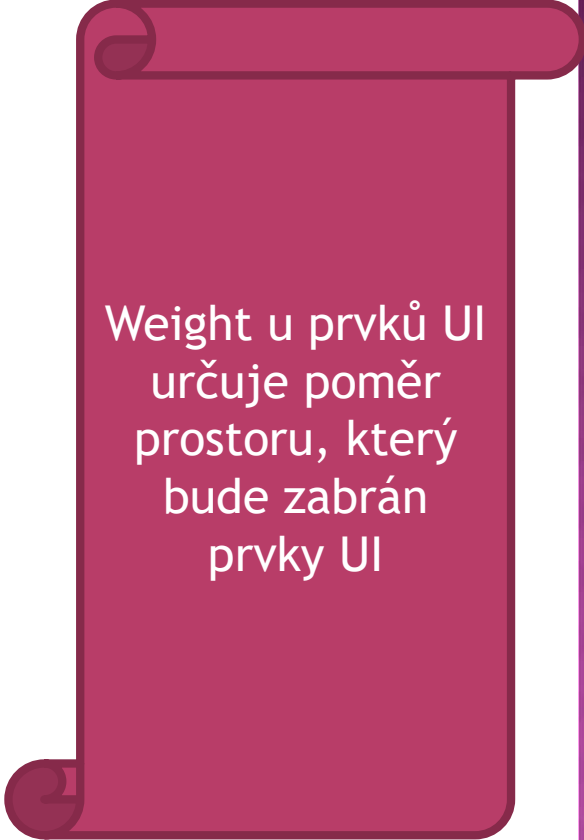
<EditText

```
android:layout_width="wrap_content"  
android:layout_height="wrap_content"  
android:id="@+id/editText"  
android:layout_weight="5" />
```

<Button

```
android:layout_width="wrap_content"  
android:layout_height="wrap_content"  
android:text="New Button"  
android:id="@+id/button4"  
android:layout_weight="1" />
```

</LinearLayout>



Weight u prvků UI
určuje poměr
prostoru, který
bude zabrán
prvky UI

TABLE LAYOUT

- Prvky UI vkládáme do „tabulky“ TableLayout



```
<?xml version="1.0" encoding="utf-8"?>
<TableLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent" android:layout_height="match_parent">
    <TableRow
        android:layout_width="fill_parent"
        android:layout_height="fill_parent">
        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="NADPIS"
            android:id="@+id/textView2"
            android:layout_column="13"
            android:textSize="30sp" />
        </TableRow>
    <TableRow
        android:layout_width="fill_parent"
        android:layout_height="fill_parent">
        <Button
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="New Button"
            android:id="@+id/button10"
            android:layout_column="11" />
        <Button
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="New Button"
            android:id="@+id/button13"
            android:layout_column="21" />
        </TableRow>
    </TableLayout>
```


FRAME LAYOUT - PŘEKRÝVÁNÍ

- Zvolíme FrameLayout



```
<?xml version="1.0" encoding="utf-8" ?>
<FrameLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent" android:layout_height="match_parent">

    <ImageView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:id="@+id/imageView2"
        android:layout_gravity="left|top"
        android:src="@drawable/obrazek" />

    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="AHOJ"
        android:id="@+id/button15"
        android:layout_gravity="left|top" />

</FrameLayout>
```

GRIDLAYOUT

- ◉ Od API 11 (ICS 4.0)
- ◉ Na starších lze přes support library (od Android 2.1 a výše)



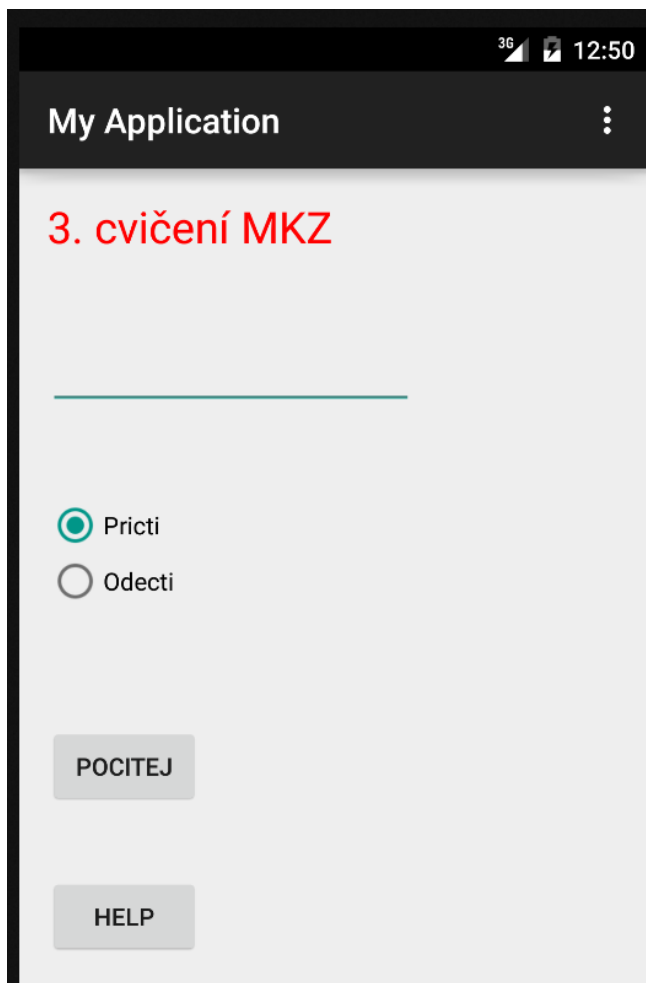
```
<?xml version="1.0" encoding="utf-8"?>
<GridLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent" android:layout_height="match_parent">

    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="New Button"
        android:id="@+id/button16"
        android:layout_row="0"
        android:layout_column="0" />

    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="New Button"
        android:id="@+id/button17"
        android:layout_row="0"
        android:layout_column="1" />

    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="New Button"
        android:id="@+id/button18"
        android:layout_row="1"
        android:layout_column="2" />
```

NÁHLED OBRAZOVKY



TextView

textColor #FF0000
textSize 25sp

EditText

InputType - jen číslo
Hint

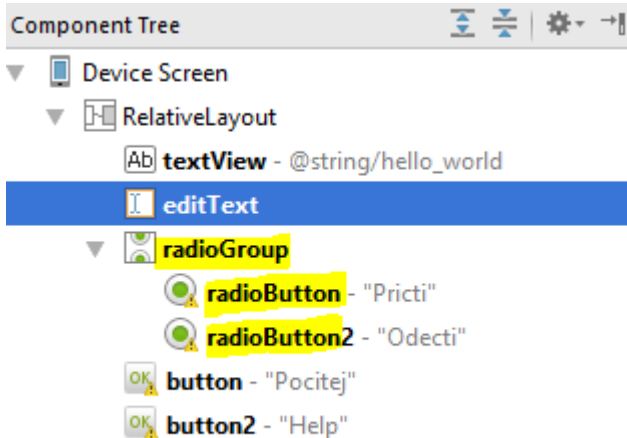
radioGroup

obsahující dva RadioButtons

2x Button

RADIO BUTTON & GROUP

- Přidáme RadioGroup
- Do ní vložíme dva RadioButtons
- U jednoho z nich nastavíme Checked



OŠETŘENÍ TLAČÍTKA POČÍTEJ

```
public void tlacitko_pocitej (View v) {  
    RadioButton r1 = (RadioButton) findViewById(R.id.radioButton);  
    RadioButton r2 = (RadioButton) findViewById(R.id.radioButton2);  
    EditText ed1 = (EditText) findViewById(R.id.editText);  
  
    int cislo;  
  
    try {  
        cislo = Integer.parseInt(ed1.getText().toString());  
    } catch (Exception e) { cislo = 0; }  
  
    if (r1.isChecked())  
        cislo++;  
    if (r2.isChecked())  
        cislo--;  
  
    ed1.setText(String.valueOf(cislo));  
}
```

VYTVOŘENÍ ACTION BARU (HLAVNÍ MENU)

už předgenerovaný kód, beze změn:

```
public boolean onCreateOptionsMenu(Menu menu) {  
    // Inflate the menu; this adds items to the action bar if it is  
    present.  
    getMenuInflater().inflate(R.menu.main, menu);  
    return true;  
}
```

MENU_MAIN.XML

```
<menu
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"
tools:context=".MainActivity">
  <item android:id="@+id/action_settings"
android:title="@string/action_settings"
  android:orderInCategory="100" app:showAsAction="never" />

  <item android:id="@+id/action_moje" android:title="moje"
  android:orderInCategory="100" app:showAsAction="ifRoom" />
  <item android:id="@+id/action_moje2" android:title="moje2"
  android:orderInCategory="100" app:showAsAction="ifRoom" />

</menu>
```

REAKCE NA ACTION BAR

```
public boolean onOptionsItemSelected(MenuItem item) {  
    // Handle action bar item clicks here. The action bar will  
    // automatically handle clicks on the Home/Up button, so long  
    // as you specify a parent activity in AndroidManifest.xml.  
    int id = item.getItemId();  
  
    //noinspection SimplifiableIfStatement  
    if (id == R.id.action_settings) {  
        zobraz_dialog();  
        return true;  
    }  
  
    return super.onOptionsItemSelected(item);  
}
```


UKÁZKA ZOBRAZENÍ MENU NA STARŠÍM ANDROIDU

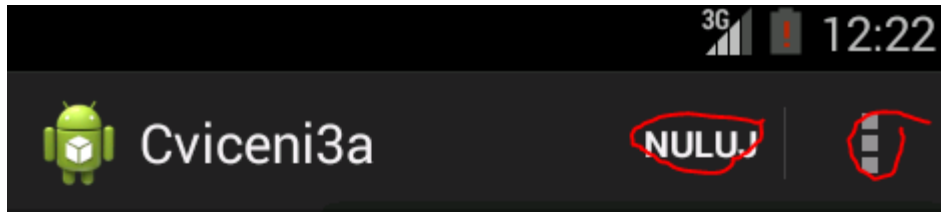


Jen pro
ilustraci

Menu
zobrazeno ve
spodní části
obrazovky

Všimněte si
tlačítka
menu
emulátoru

NOVĚJŠÍ ANDROID - ACTION BAR



Třetí cvičení

Settings

Stovka

68

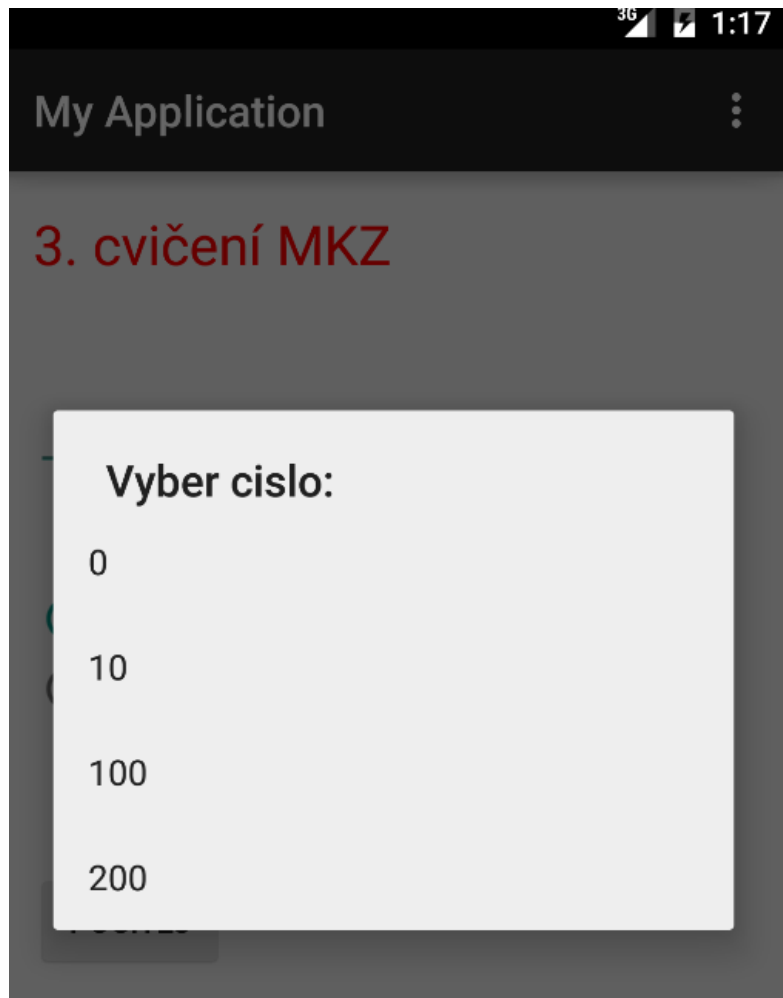
- Zvětši
- Změni

Počítej

ZOBRAZENÍ DIALOGU - DIALOG BUILDER

```
public void zobraz_dialog(View v) {  
  
    final CharSequence[] items = {"0", "10", "100", "200"};  
    AlertDialog.Builder builder = new AlertDialog.Builder(this);  
  
    builder.setTitle("Vyber cislo:");  
    builder.setItems(items, new DialogInterface.OnClickListener() {  
        public void onClick(DialogInterface dialog, int item) {  
            Toast.makeText(getApplicationContext(), items[item],  
                Toast.LENGTH_SHORT).show();  
            EditText ed1 = (EditText) findViewById(R.id.editText);  
            ed1.setText(items[item]);  
        }  
    });  
    AlertDialog alert = builder.create();  
    alert.show();  
}
```

ZOBRAZENÍ DIALOGU



KONTEXTOVÉ MENU - REGISTRACE

do metody onCreate přidáme registraci:

```
protected void onCreate(Bundle savedInstanceState) {  
    super.onCreate(savedInstanceState);  
    setContentView(R.layout.activity_main);  
  
    TextView tv1 = (TextView) findViewById(R.id.textView);  
    registerForContextMenu(tv1);  
}
```

Při dlouhém pokliku na nadpis dojde ke změně barvy

KONTEXTOVÉ MENU - VYTVOŘENÍ

```
public void onCreateContextMenu (ContextMenu menu, View v, ContextMenu.ContextMenuInfo menuInfo) {
```

```
    super.onCreateContextMenu(menu, v, menuInfo);
```

```
    menu.add(Menu.NONE, 0, 0, "Modra");
```

```
    menu.add(Menu.NONE, 1, 1, "Zluta");
```

```
    menu.add(Menu.NONE, 2, 2, "Cervena");
```

```
}
```

KONTEXTOVÉ MENU - OBSLUHA

```
public boolean onOptionsItemSelected(MenuItem item) {
```

```
    TextView tv1 = (TextView) findViewById(R.id.textView);
```

```
    switch (item.getItemId()) {
```

```
        case 0:
```

```
            tv1.setTextColor(Color.BLUE); return true;
```

```
        case 1:
```

```
            tv1.setTextColor(Color.YELLOW); return true;
```

```
        case 2:
```

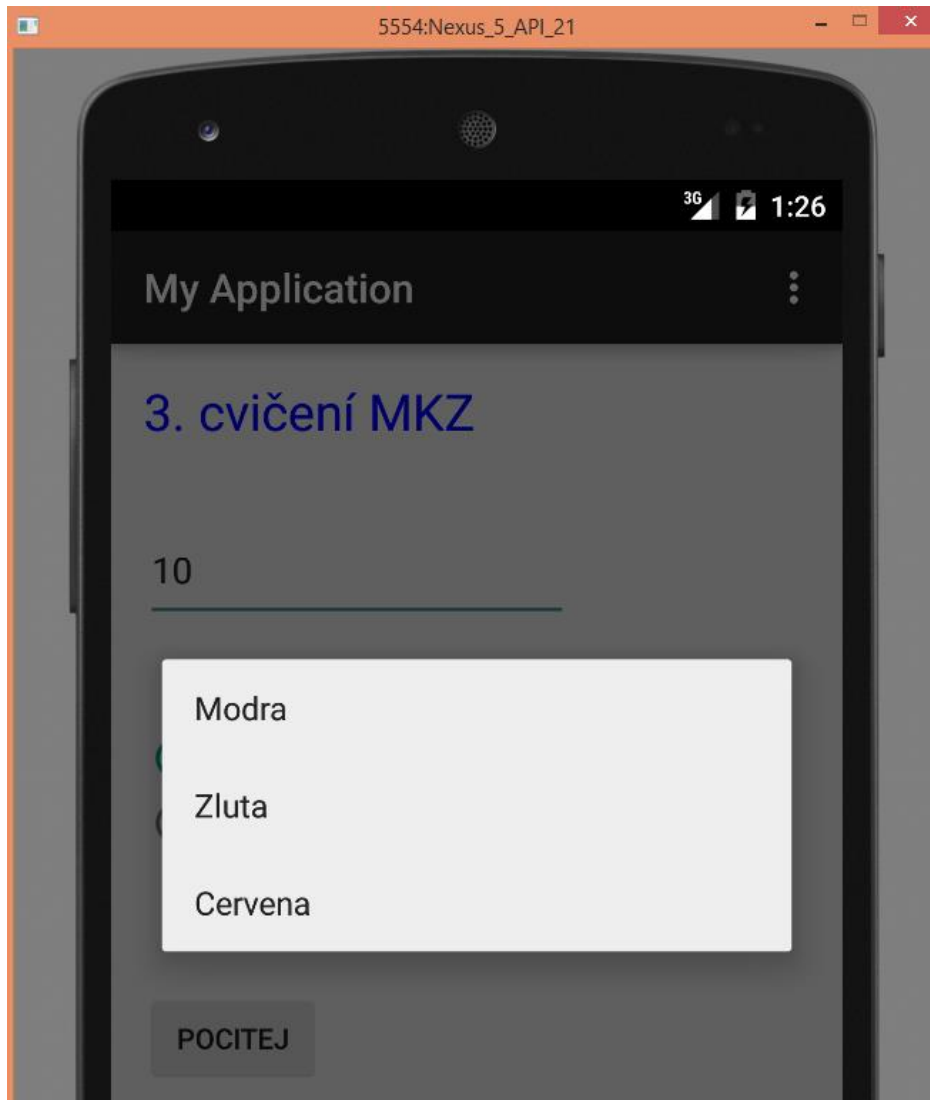
```
            tv1.setTextColor(Color.RED); return true;
```

```
    }
```

```
    return true;
```

```
}
```

KONTEXTOVÉ MENU - UKÁZKA



Dlouhý klik na nadpis
3. cvičení
a objeví se menu

TLAČÍTKO HELP - DIALOG

```
public void tlacitko_dialog (View v) {  
  
    final Context c1 = v.getContext();  
  
    AlertDialog a1 = new AlertDialog.Builder(this).create();  
    a1.setTitle("Nápověda");  
    a1.setMessage("Pomoc si sám!");  
    a1.setButton(RESULT_OK, "Ach jo", new DialogInterface.OnClickListener() {  
  
        @Override  
        public void onClick(DialogInterface dialog, int which) {  
  
            Toast.makeText(c1, "Díky za pochopení", Toast.LENGTH_LONG).show();  
        }  
    });  
    a1.setIcon(R.drawable.action_search);  
    a1.show();  
  
}
```

UKÁZKA ZOBRAZENÍ DIALOGU

