Vidzemes University of Applied Sciences

**Faculty of Engineering**

mobile programming engineering 1

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practical assignment #2

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# Introduction

**Goal.** Developing an application called “Dialog”.

Application with two connected activities:

* The first activity contains the text “1-st Activity”, button “Go to 2-nd”, button “Dialog”;
* Button “Go to 2-nd” takes the user to the second activity;
* Button “Dialog” opens a dialog window;
* Dialog contains:
  + Title “<No.> Group’s Dialog”;
  + Multi choice checkboxes:
    - each checkbox includes a group member’s name and surname;
    - when the checkbox is marked, a Toast has to appear with the text “<Name Surname 1> checked”;
    - when the checkbox is unmarked, a Toast has to appear with the text “<Name Surname 3> unchecked”;
    - Two buttons: “OK” and “Close”;
    - when “OK” is clicked, a Toast with the text “You clicked OK” is displayed and the dialog is not closed;
    - when “Close” is clicked, a Toast with the text “You closed dialog” is displayed and the dialog box is dismissed.
* The second activity contains the text “2-nd Activity” and the button “Back”
  + When “Back” is clicked, the application returns to the first activity and cleans the back stack.

# Application contains

MainActivity.java

MainActivity2.java

activity\_main.xml

activity\_main2.xml

strings.xml

AndroidManifest.xml

## 2.1. MainActivity.java

**package** lv.gints.dialog;  
  
**import** androidx.appcompat.app.AlertDialog;  
**import** androidx.appcompat.app.AppCompatActivity;  
  
**import** android.content.DialogInterface;  
**import** android.content.Intent;  
**import** android.os.Bundle;  
**import** android.view.View;  
**import** android.widget.Button;  
**import** android.widget.Toast;  
  
**import** java.util.ArrayList;  
  
**public class** MainActivity **extends** AppCompatActivity {  
 ArrayList **selectedItems** = **new** ArrayList();  
 Toast **toast**;  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main***);  
  
 Button goToSecond = (Button) findViewById(R.id.***Go2nd***);  
 goToSecond.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
 Intent intent = **new** Intent(MainActivity.**this**, MainActivity2.**class**);  
 startActivity(intent);  
 }  
 });  
  
 Button dialog = (Button) findViewById(R.id.***dialog***);  
 dialog.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
  
 AlertDialog.Builder builder = **new** AlertDialog.Builder(MainActivity.**this**);  
 builder.setTitle(R.string.***dialog\_title***);  
 builder.setMultiChoiceItems(R.array.***gints\_array***,**null**, **new** DialogInterface.OnMultiChoiceClickListener() {  
 @Override  
 **public void** onClick(DialogInterface dialog, **int** which,  
 **boolean** isChecked) {  
 String checked = getResources().getStringArray(R.array.***gints\_array***)[which];  
 **if** (isChecked) {  
 *// If the user checked the item, add it to the selected items* **selectedItems**.add(which);  
 **if** (**toast** != **null**) **toast**.cancel();  
 **toast** = Toast.*makeText*(MainActivity.**this**, checked + **" checked"**, Toast.***LENGTH\_SHORT***);  
 **toast**.show();  
 } **else if** (**selectedItems**.contains(which)) {  
 *// Else, if the item is already in the array, remove it* **selectedItems**.remove(Integer.*valueOf*(which));  
 **if** (**toast** != **null**) **toast**.cancel();  
 **toast** = **toast**.*makeText*(MainActivity.**this**, checked + **" unchecked"**, Toast.***LENGTH\_SHORT***);  
 **toast**.show();  
 }  
 }  
 });  
 builder.setPositiveButton(**"OK"**, **new** DialogInterface.OnClickListener() {  
 @Override  
 **public void** onClick(DialogInterface dialog, **int** which) {  
 }  
 });  
 builder.setNegativeButton(**"Calcel"**, **new** DialogInterface.OnClickListener() {  
 @Override  
 **public void** onClick(DialogInterface dialog, **int** which) {  
 **if** (**toast** != **null**) **toast**.cancel();  
 **toast** = **toast**.*makeText*(MainActivity.**this**, **"You closed dialog"**, Toast.***LENGTH\_SHORT***);  
 **toast**.show();  
 }  
 });  
 **final** AlertDialog dialog = builder.create();  
 dialog.show();  
 dialog.getButton(AlertDialog.***BUTTON\_POSITIVE***).setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
 Boolean wantToCloseDialog = **false**;  
 **if** (**toast** != **null**) **toast**.cancel();  
 **toast** = **toast**.*makeText*(MainActivity.**this**, **"You clicked OK"**, Toast.***LENGTH\_SHORT***);  
 **toast**.show();  
 }  
 });  
 }  
 });  
 }  
}

## 2.2. MainActivity2.java

**package** lv.gints.dialog;  
  
**import** androidx.appcompat.app.AppCompatActivity;  
  
**import** android.content.Intent;  
**import** android.os.Bundle;  
**import** android.view.View;  
**import** android.widget.Button;  
  
**public class** MainActivity2 **extends** AppCompatActivity {  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main2***);  
  
 Button goBack = (Button) findViewById(R.id.***goback***);  
 goBack.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
 Intent intent = **new** Intent(MainActivity2.**this**, MainActivity.**class**);  
 intent.putExtra(**"activity\_2\_msg"**, **"I clicked the button"**);  
 intent.addFlags(Intent.***FLAG\_ACTIVITY\_CLEAR\_TOP***);  
 startActivity(intent);  
 }  
 });  
 }  
}

## 2.3 activity\_main.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=".MainActivity"**>  
  
 <**TextView  
 android:id="@+id/main1text"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="112dp"  
 android:text="@string/main1\_text"  
 android:textColor="#020202"  
 android:textSize="18sp"  
 android:textStyle="bold"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.498"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"** />  
  
 <**Button  
 android:id="@+id/Go2nd"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="@string/main1\_button1"  
 app:layout\_constraintBottom\_toTopOf="@+id/dialog"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/main1text"** />  
  
 <**Button  
 android:id="@+id/dialog"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginBottom="88dp"  
 android:text="@string/main1\_button2"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"** />  
</**androidx.constraintlayout.widget.ConstraintLayout**>

## 2.4 activity\_main2.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=".MainActivity2"**>  
  
 <**TextView  
 android:id="@+id/main2text"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="112dp"  
 android:text="@string/main2\_text"  
 android:textColor="#020202"  
 android:textSize="18sp"  
 android:textStyle="bold"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.498"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"** />  
  
 <**Button  
 android:id="@+id/goback"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="@string/main2\_button1"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/main2text"** />  
</**androidx.constraintlayout.widget.ConstraintLayout**>

## 2.3 strings.xml

<**resources**>  
 <**string name="app\_name"**>Dialog</**string**>  
 <**string name="main1\_text"**>1-st Activity</**string**>  
 <**string name="main2\_text"**>2-st Activity</**string**>  
 <**string name="main1\_button1"**>Go to 2-nd</**string**>  
 <**string name="main1\_button2"**>Dialog</**string**>  
 <**string name="main2\_button1"**>Back</**string**>  
 <**string name="dialog\_title"**>Gints Dialog</**string**>  
 <**string-array name="gints\_array"**>  
 <**item**>Gints 1</**item**>  
 <**item**>Gints 2</**item**>  
 <**item**>Gints 3</**item**>  
 <**item**>Gints 4</**item**>  
 </**string-array**>  
</**resources**>

## 2.4 AndroidManifest.xml

*<?***xml version="1.0" encoding="utf-8"***?>*<**manifest xmlns:android="http://schemas.android.com/apk/res/android"  
 package="lv.gints.dialog"**>  
  
 <**application  
 android:allowBackup="true"  
 android:icon="@mipmap/ic\_launcher"  
 android:label="@string/app\_name"  
 android:roundIcon="@mipmap/ic\_launcher\_round"  
 android:supportsRtl="true"  
 android:theme="@style/Theme.Dialog"**>  
 <**activity android:name=".MainActivity2"**></**activity**>  
 <**activity android:name=".MainActivity"**>  
 <**intent-filter**>  
 <**action android:name="android.intent.action.MAIN"** />  
  
 <**category android:name="android.intent.category.LAUNCHER"** />  
 </**intent-filter**>  
 </**activity**>  
 </**application**>  
  
</**manifest**>

# Screenshoots

 

 

 