**Showing dialogs in Android with fragments - Tutorial**

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Version 10.1

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01.03.2016

**Using dialogs in Android programming**

This tutorial describes how to use dialogs in Android applications. It is based on Android Studio and Android 5.0

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**1. Using dialogs in Android with DialogFragments**

**1.1. Using dialogs in Android**

In the past you could open dialogs from your activity via the showDialog(int) method but since the introduction of fragments which method has been deprecated. You should use an instance of DialogFragment to show a dialog. A DialogFragment is a fragment that displays a dialog window, floating on top of its activity’s window. You can either return an existing dialog implementation in your fragment or implement a custom layout to be shown.

**1.2. Using existing dialogs**

Your DialogFragment can implement the onCreateDialog method and return an existing dialog. The Dialog class is the base class for implementing a dialog. Typically, you use one of its subclasses, e.g., AlertDialog, ProgressDialog, DatePickerDialog or TimePickerDialog.

Android also provides a ProgressDialog, which can be opened via a ProgressDialog.open() method call.

**1.3. Custom layout for your DialogFragment**

If you want to create your custom dialog, you create a layout file for the dialog. This layout file can be inflated and returns via the onCreateView() method of the fragment.

**1.4. Communication to the activity via the DialogFragment**

Your implementation of DialogFragment communicates similar to other fragment to the activity. A good practice is that the fragment defines an interface which the activity must implement so that the fragment can call back into the activity without knowing the implementation details of the activity.

**2. Exercise: Using the DialogFragment class**

**2.1. Target**

The following demonstrates the usage of the DialogFragment dialog in an activity with an existing dialog and with a custom layout for the dialog.

**2.2. Create project and layout files**

Create a new Android project with the com.android.vogella.com.dialogfragmentexample package.

Ensure that the layout file of your activity contains two buttons pointing both to onClick method in their android:onClick property.

Create the following layout file, called fragment\_username.xml.

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

android:id="@+id/edit\_name"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_gravity="center"

android:orientation="vertical">

<TextView

android:id="@+id/lbl\_your\_name"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Enter user name" />

<EditText

android:id="@+id/username"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:imeOptions="actionDone"

android:inputType="text" />

</LinearLayout>

**2.3. Create fragments and adjust activity**

Create the following two fragment classes.

**package** dialogfragmentexample.android.vogella.com.dialogfragmentexample;

**import** android.app.AlertDialog;

**import** android.app.Dialog;

**import** android.app.DialogFragment;

**import** android.content.DialogInterface;

**import** android.os.Bundle;

**import** android.widget.Toast;

**public** **class** MyAlertDialogFragment **extends** DialogFragment {

*@Override*

**public** Dialog onCreateDialog(Bundle savedInstanceState) {

**return** **new** AlertDialog.Builder(getActivity())

*// set dialog icon*

.setIcon(android.R.drawable.stat\_notify\_error)

*// set Dialog Title*

.setTitle("Alert dialog fragment example")

*// Set Dialog Message*

.setMessage("This is a message")

*// positive button*

.setPositiveButton("OK", **new** DialogInterface.OnClickListener() {

**public** **void** onClick(DialogInterface dialog, **int** which) {

Toast.makeText(getActivity(), "Pressed OK", Toast.LENGTH\_SHORT).show();

}

})

*// negative button*

.setNegativeButton("Cancel", **new** DialogInterface.OnClickListener() {

**public** **void** onClick(DialogInterface dialog, **int** which) {

Toast.makeText(getActivity(), "Cancel", Toast.LENGTH\_SHORT).show();

}

}).create();

}

}

**package** dialogfragmentexample.android.vogella.com.dialogfragmentexample;

**import** android.app.DialogFragment;

**import** android.os.Bundle;

**import** android.view.KeyEvent;

**import** android.view.LayoutInflater;

**import** android.view.View;

**import** android.view.ViewGroup;

**import** android.view.WindowManager;

**import** android.widget.EditText;

**import** android.widget.TextView;

**public** **class** MyDialogFragment **extends** DialogFragment **implements** TextView.OnEditorActionListener {

**private** EditText mEditText;

**public** **interface** UserNameListener {

**void** onFinishUserDialog(String user);

}

*// Empty constructor required for DialogFragment*

**public** MyDialogFragment() {

}

*@Override*

**public** View onCreateView(LayoutInflater inflater, ViewGroup container,

Bundle savedInstanceState) {

View view = inflater.inflate(R.layout.fragment\_username, container);

mEditText = (EditText) view.findViewById(R.id.username);

*// set this instance as callback for editor action*

mEditText.setOnEditorActionListener(**this**);

mEditText.requestFocus();

getDialog().getWindow().setSoftInputMode(WindowManager.LayoutParams.SOFT\_INPUT\_STATE\_VISIBLE);

getDialog().setTitle("Please enter username");

**return** view;

}

*@Override*

**public** **boolean** onEditorAction(TextView v, **int** actionId, KeyEvent event) {

*// Return input text to activity*

UserNameListener activity = (UserNameListener) getActivity();

activity.onFinishUserDialog(mEditText.getText().toString());

**this**.dismiss();

**return** true;

}

}

Change the code of your activity to the following listing.

**package** dialogfragmentexample.android.vogella.com.dialogfragmentexample;

**import** android.app.Activity;

**import** android.app.Fragment;

**import** android.app.FragmentManager;

**import** android.os.Bundle;

**import** android.view.View;

**import** android.widget.Toast;

**public** **class** MainActivity **extends** Activity **implements** MyDialogFragment.UserNameListener {

*@Override*

**protected** **void** onCreate(Bundle savedInstanceState) {

**super**.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

}

*@Override*

**public** **void** onFinishUserDialog(String user) {

Toast.makeText(**this**, "Hello, " + user, Toast.LENGTH\_SHORT).show();

}

**public** **void** onClick(View view) {

*// close existing dialog fragments*

FragmentManager manager = getFragmentManager();

Fragment frag = manager.findFragmentByTag("fragment\_edit\_name");

**if** (frag != null) {

manager.beginTransaction().remove(frag).commit();

}

**switch** (view.getId()) {

**case** R.id.showCustomFragment:

MyDialogFragment editNameDialog = **new** MyDialogFragment();

editNameDialog.show(manager, "fragment\_edit\_name");

**break**;

**case** R.id.showAlertDialogFragment:

MyAlertDialogFragment alertDialogFragment = **new** MyAlertDialogFragment();

alertDialogFragment.show(manager, "fragment\_edit\_name");

**break**;

}

}

}

**2.4. Test dialog usage**