**Lecture 6: The iBookmark project**

In this project we want to create a “bookmark manager” to create and manage our favorite bookmarks. One activity should maintain an editable list of bookmarks, which can be clicked and show the respective page in a second activity. The initial code could be as follows. Please make sure you get that to work so we can expand on it during our next lectures.

**Layout file**

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

xmlns:tools=*"http://schemas.android.com/tools"*

android:layout\_width=*"match\_parent"*

android:layout\_height=*"match\_parent"*

android:orientation=*"vertical"*

android:paddingBottom=*"@dimen/activity\_vertical\_margin"*

android:paddingLeft=*"@dimen/activity\_horizontal\_margin"*

android:paddingRight=*"@dimen/activity\_horizontal\_margin"*

android:paddingTop=*"@dimen/activity\_vertical\_margin"*

tools:context=*".BookmarkActivity"* >

<ListView

android:id=*"@+id/id\_list"*

android:layout\_width=*"match\_parent"*

android:layout\_height=*"wrap\_content"*

android:layout\_weight=*"1"* >

</ListView>

</LinearLayout>

**Values file (strings.xml)**

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

<resources>

<string name=*"app\_name"*>iBookmark</string>

<string name=*"action\_settings"*>Settings</string>

<string name=*"menu\_string\_add"*>Add</string>

</resources>

**Menu file**

<menu xmlns:android=*"http://schemas.android.com/apk/res/android"* >

<item

android:id=*"@+id/action\_settings"*

android:orderInCategory=*"100"*

android:showAsAction=*"never"*

android:title=*"@string/action\_settings"*/>

<item

android:id=*"@+id/id\_menu\_add"*

android:title=*"@string/menu\_string\_add"*

android:showAsAction=*"ifRoom|withText"*

android:icon=*"@android:drawable/ic\_menu\_add"*>

</item>

</menu>

**Bookmark.java**

**package** org.mathcs.ibookmark;

**public** **class** Bookmark

{

**private** String url;

**private** String title;

**public** Bookmark(String title, String url)

{

**super**();

**this**.url = url;

**this**.title = title;

}

**public** String getUrl()

{

**return** url;

}

**public** **void** setUrl(String url)

{

**this**.url = url;

}

**public** String getTitle()

{

**return** title;

}

**public** **void** setTitle(String title)

{

**this**.title = title;

}

**public** String toString()

{

**return** title + "[" + url + "]";

}

}

**BookmarkView.java**

package org.mathcs.ibookmark;

import android.content.Context;

import android.util.TypedValue;

import android.widget.LinearLayout;

import android.widget.TextView;

public class BookmarkView extends LinearLayout

{

private TextView url;

private TextView title;

public BookmarkView(Context context)

{

super(context);

title = new TextView(context);

url = new TextView(context);

title.setTextSize(TypedValue.COMPLEX\_UNIT\_SP, BookmarkActivity.TEXT\_SIZE);

url.setTextSize(TypedValue.COMPLEX\_UNIT\_SP, BookmarkActivity.TEXT\_SIZE\_SMALL);

setOrientation(LinearLayout.VERTICAL);

addView(title);

addView(url);

}

public void setData(Bookmark item)

{

title.setText(item.getTitle());

url.setText(item.getUrl()); }

}

**BookmarkAdapter.java**

package org.mathcs.ibookmark;

import java.util.ArrayList;

import android.content.Context;

import android.view.View;

import android.view.ViewGroup;

import android.widget.BaseAdapter;

public class BookmarkAdapter extends BaseAdapter

{

private ArrayList<Bookmark> data;

private Context context;

public BookmarkAdapter(Context context)

{

super();

this.context = context;

data = new ArrayList<Bookmark>();

}

public void add(Bookmark item)

{

data.add(item);

}

public Bookmark get(int position)

{

return (Bookmark)data.get(position);

}

public void remove(int position)

{

data.remove(position);

}

@Override

public int getCount()

{

return data.size();

}

@Override

public Object getItem(int position)

{

return data.get(position);

}

@Override

public long getItemId(int position)

{

return 0;

}

@Override

public View getView(int position, View convertView, ViewGroup parent)

{

BookmarkView view = null;

if (convertView != null)

view = (BookmarkView)convertView;

else

view = new BookmarkView(context);

view.setData(data.get(position));

return view;

}

}

**BookmarkActivity.java**

package org.mathcs.ibookmark;

import android.os.Bundle;

import android.app.Activity;

import android.content.Intent;

import android.view.Menu;

import android.view.MenuItem;

import android.view.View;

import android.widget.AdapterView;

import android.widget.ListView;

import android.widget.Toast;

public class BookmarkActivity extends Activity

{

public final static String KEY\_URL = "url";

public final static String DEFAULT\_URL = "http://www.shu.edu/";

public final static int TEXT\_SIZE = 18;

public final static int TEXT\_SIZE\_SMALL = 16;

private BookmarkAdapter data;

private ListView list;

@Override

protected void onCreate(Bundle savedInstanceState)

{

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_bookmark);

data = new BookmarkAdapter(this);

list = (ListView)this.findViewById(R.id.id\_list);

list.setAdapter(data);

list.setOnItemClickListener(new AdapterView.OnItemClickListener()

{

@Override

public void onItemClick(AdapterView<?> adapter,

View view, int pos, long arg3)

{

startBookmark(pos);

}

});

data.add(new Bookmark("Seton Hall Pirate", "http://pirate.shu.edu/"));

data.add(new Bookmark("MathCS.org", "http://www.mathcs.org/"));

}

@Override

public boolean onCreateOptionsMenu(Menu menu)

{

// Inflate the menu; this adds items to the action bar if it is present.

getMenuInflater().inflate(R.menu.bookmark, menu);

return true;

}

@Override

public boolean onOptionsItemSelected(MenuItem item)

{

if (item.getItemId() == R.id.id\_menu\_add)

{

addBookmark();

return true;

}

else

return super.onOptionsItemSelected(item);

}

@Override

public void onPause()

{

super.onPause();

Toast.makeText(this, "Saving", Toast.LENGTH\_SHORT).show();

}

@Override

public void onResume()

{

super.onResume();

Toast.makeText(this, "Loading", Toast.LENGTH\_SHORT).show();

}

private void addBookmark()

{

data.add(new Bookmark("Rutgers", "http://www.vrutgers.edu/"));

data.notifyDataSetChanged();

}

private void startBookmark(int position)

{

Intent intent = new Intent(this, UrlViewer.class);

intent.putExtra(KEY\_URL, data.get(position).getUrl());

startActivity(intent);

}

}

**UrlViewer**

package org.mathcs.ibookmark;

import android.app.Activity;

import android.os.Bundle;

import android.webkit.WebView;

public class UrlViewer extends Activity

{

private WebView web;

private String url;

protected void onCreate(Bundle savedInstanceState)

{

super.onCreate(savedInstanceState);

web = new WebView(this);

setContentView(web);

url = getIntent().getStringExtra(BookmarkActivity.KEY\_URL);

setTitle(url);

web.loadUrl(url);

}

}