Basics

AndroidManifest.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
        package="ch.hsr.hyoumen" >

        <uses-sdk
                android:minSdkVersion="14"
                android:targetSdkVersion="18" />

        <uses-permission android:name="android.permission.INTERNET" />

        <application
                android:allowBackup="true"
                android:icon="@drawable/ic_launcher"
                android:label="@string/app_name"
                android:theme="@style/AppTheme" >
                <activity
                        android:name="ch.hsr.hyoumen.LoginActivity"
                        android:label="@string/app_name"
                        android:windowSoftInputMode="adjustResize|stateVisible" >
                        <intent-filter>
                                <action android:name="android.intent.action.MAIN" />
                                <category android:name="android.intent.category.LAUNCHER" />
                        </intent-filter>
                </activity>
                <activity
                        android:name="ch.hsr.hyoumen.MainActivity"
                        android:label="@string/activity_main"
                        android:theme="@style/AppTheme" >
                </activity>
        </application>
</manifest>
```

strings.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<resources>
        <string name="app_name">hyoumen</string>
        <string name="activity_login">Login</string>
        <string name="activity_main">Gadgetothek</string>
        <!-- usw -->
</resources>
```

activity_login.xml (min)

```xml
<RelativeLayout 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:paddingLeft="@dimen/activity_horizontal_margin"
        android:paddingRight="@dimen/activity_horizontal_margin"
        android:paddingTop="@dimen/activity_vertical_margin"
        android:paddingBottom="@dimen/activity_vertical_margin"
        tools:context="ch.hsr.hyoumen.LoginActivity">

        <LinearLayout
                android:orientation="vertical"
                android:layout_width="fill_parent"
                android:layout_height="fill_parent"
                android:layout_alignParentTop="true"
                android:layout_alignParentStart="true">

                <TextView
                        android:layout_width="wrap_content"
                        android:layout_height="wrap_content"
                        android:textAppearance="?android:attr/textAppearanceLarge"
                        android:text="@string/activity_login"/>
                        android:id="@+id/title_activity_login"/>

                <TextView
                        android:layout_width="match_parent"
                        android:layout_height="wrap_content"
                        android:textAppearance="?android:attr/textAppearanceLarge"
                        android:id="@+id/label_email"
                        android:text="@string/text_email" />

                <EditText
                        android:layout_width="match_parent"
                        android:layout_height="wrap_content"
                        android:inputType="textEmailAddress"
                        android:ems="10"
                        android:id="@+id/email" />

                <Button
                        android:layout_width="match_parent"
                        android:layout_height="wrap_content"
                        android:text="Login"
                        android:id="@+id/button_login" />
        </LinearLayout>
</RelativeLayout>
```

LoginActivity.java

findViewById(), OnClickListener() und startActivity(new Intent())

```java
public class LoginActivity extends Activity {
        @Override
        protected void onCreate(Bundle savedInstanceState) {
                super.onCreate(savedInstanceState);
                setContentView(R.layout.activity_login);

                Button registerButton = (Button) findViewById(R.id.button_register);
                registerButton.setOnClickListener(new OnClickListener() {
                    @Override
                    public void onClick(View v) {
                        startActivity(new Intent(LoginActivity.this,
                                                 RegisterActivity.class));
                    }
                });
        }
}
```

Custom ListView

activity_main.xml

```xml
<RelativeLayout 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:paddingLeft="@dimen/activity_horizontal_margin"
        android:paddingRight="@dimen/activity_horizontal_margin"
        android:paddingTop="@dimen/activity_vertical_margin"
        android:paddingBottom="@dimen/activity_vertical_margin"
        tools:context="ch.hsr.hyoumen.MainActivity">

        <!-- ganz viel anders zeugs -->

        <ListView
                android:layout_width="match_parent"
                android:layout_height="150dp"
                android:id="@+id/list_loans" />

        <!-- nomol uu viel zueg -->

</RelativeLayout>
```

loan_row.xml

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

        <TextView
                android:id="@+id/label_text"
                android:layout_weight="1"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:textSize="20sp"
                android:layout_gravity="start"
                android:padding="5dp" />
        <TextView
                android:id="@+id/label_date"
                android:layout_weight="1"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:textSize="20sp"
                android:layout_gravity="end"
                android:padding="5dp" />
</LinearLayout>
```

MainActivity.java

```java
public class MainActivity extends Activity {
        private ListView loanList;

        @Override
        protected void onCreate(Bundle savedInstanceState) {
                super.onCreate(savedInstanceState);
                setContentView(R.layout.activity_main);

                loanList = (ListView) findViewById(R.id.list_loans);
                List<Loan> listToDisplay = new ArrayList<Loan>();
                loanList.setAdapter(new LoanAdapter(MainActivity.this,
                                        R.layout.loan_row, listToDisplay));
        }
}
```

LoanAdapter.java

```java
public class LoanAdapter extends ArrayAdapter<Loan> {

        public LoanAdapter(Context context, int resource, List<Loan> objects) {
                super(context, resource, objects);
        }

        @Override
        public View getView(int position, View convertView, ViewGroup parent) {
                final Loan loan = getItem(position);

                if (convertView == null) {
                        LayoutInflater layoutInflater = (LayoutInflater) this.getContext().
                                        getSystemService(Context.LAYOUT_INFLATER_SERVICE);
                        convertView = layoutInflater.inflate(R.layout.loan_row, null);
                }


                if(loan != null) {
                        TextView textName =
                                (TextView) convertView.findViewById(R.id.label_text);

                        TextView textDate =
                                (TextView) convertView.findViewById(R.id.label_date);

                        if (loan.getPickupDate() != null) {
                                textDate.setText(loan.getPickupDate().toString());
                        }
                        if(loan.getGadget() != null) {
                                textName.setText(loan.getGadget().getName());
                        }
                }

                return convertView;
        }
}
```