**ListView BaseAdapter example**

In this tutorial, I will show how to fill ListView with items using BaseAdapter. As always, tutorial has step-by-step instructions. So let’s start.

Step 1 – Put ListView to your layout(it does not matter it is layout for Fragment or Activity – in my case it will be in fragment)

<FrameLayout 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"  
   tools:context="net.joerichard.navigationdrawertutorial.LibraryFragment"  
   android:background="#FFFFFF">  
  
    <!-- TODO: Update blank fragment layout -->  
    <ListView android:layout\_width="match\_parent" android:layout\_height="match\_parent"  
       android:id="@+id/lvLibrary" />  
  
</FrameLayout>

Step 2: My example will be list of books. That’s why let’s create POJO(Plain Java Object)

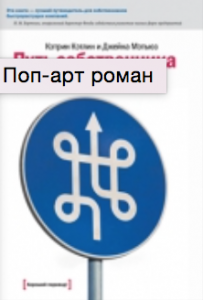
public class [Book](http://www.google.com/search?hl=en&q=allinurl%3Abook+java.sun.com&btnI=I%27m%20Feeling%20Lucky) {  
  
    [String](http://www.google.com/search?hl=en&q=allinurl%3Astring+java.sun.com&btnI=I%27m%20Feeling%20Lucky) author;  
    [String](http://www.google.com/search?hl=en&q=allinurl%3Astring+java.sun.com&btnI=I%27m%20Feeling%20Lucky) title;  
    int cover;  
  
    public [String](http://www.google.com/search?hl=en&q=allinurl%3Astring+java.sun.com&btnI=I%27m%20Feeling%20Lucky) getAuthor() {  
        return author;  
    }  
  
    public void setAuthor([String](http://www.google.com/search?hl=en&q=allinurl%3Astring+java.sun.com&btnI=I%27m%20Feeling%20Lucky) author) {  
        this.author = author;  
    }  
  
    public [String](http://www.google.com/search?hl=en&q=allinurl%3Astring+java.sun.com&btnI=I%27m%20Feeling%20Lucky) getTitle() {  
        return title;  
    }  
  
    public void setTitle([String](http://www.google.com/search?hl=en&q=allinurl%3Astring+java.sun.com&btnI=I%27m%20Feeling%20Lucky) title) {  
        this.title = title;  
    }  
  
    public int getCover() {  
        return cover;  
    }  
  
    public void setCover(int cover) {  
        this.cover = cover;  
    }  
}

Step 3: Add book covers to res/drawables/ folder  
[](http://joerichard.net/wp-content/uploads/2015/08/book1.png)

[](http://joerichard.net/wp-content/uploads/2015/08/book2.png)

[](http://joerichard.net/wp-content/uploads/2015/08/book3.png)

[](http://joerichard.net/wp-content/uploads/2015/08/book4.png)

[](http://joerichard.net/wp-content/uploads/2015/08/book5.png)

[](http://joerichard.net/wp-content/uploads/2015/08/book6.png)

[](http://joerichard.net/wp-content/uploads/2015/08/book7.png)

[](http://joerichard.net/wp-content/uploads/2015/08/book8.png)

[](http://joerichard.net/wp-content/uploads/2015/08/book9.png)

Step 4: Retrieve list of books from somewhere. Cases may be different: you may take from parsed JSON file, XML file, SQLite database. In my case, I will populate list of books manually. So I create method which returns List:

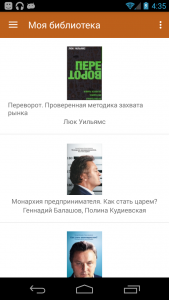
private List<Book> getBooksList() {  
        List<Book> booksList = new ArrayList<>();  
  
        [Book](http://www.google.com/search?hl=en&q=allinurl%3Abook+java.sun.com&btnI=I%27m%20Feeling%20Lucky) book = new [Book](http://www.google.com/search?hl=en&q=allinurl%3Abook+java.sun.com&btnI=I%27m%20Feeling%20Lucky)();  
        book.setCover(R.drawable.book1);  
        book.setTitle("Переворот. Проверенная методика захвата рынка");  
        book.setAuthor("Люк Уильямс");  
        booksList.add(book);  
  
        book = new [Book](http://www.google.com/search?hl=en&q=allinurl%3Abook+java.sun.com&btnI=I%27m%20Feeling%20Lucky)();  
        book.setCover(R.drawable.book2);  
        book.setTitle("Монархия предпринимателя. Как стать царем?");  
        book.setAuthor("Геннадий Балашов, Полина Кудиевская");  
        booksList.add(book);  
  
        book = new [Book](http://www.google.com/search?hl=en&q=allinurl%3Abook+java.sun.com&btnI=I%27m%20Feeling%20Lucky)();  
        book.setCover(R.drawable.book3);  
        book.setTitle("Как стать авантюристом? Размышления миллионера");  
        book.setAuthor("Геннадий Балашов");  
        booksList.add(book);  
  
        book = new [Book](http://www.google.com/search?hl=en&q=allinurl%3Abook+java.sun.com&btnI=I%27m%20Feeling%20Lucky)();  
        book.setCover(R.drawable.book4);  
        book.setTitle("Мастерство продажи");  
        book.setAuthor("Мишель Завадский");  
        booksList.add(book);  
  
        book = new [Book](http://www.google.com/search?hl=en&q=allinurl%3Abook+java.sun.com&btnI=I%27m%20Feeling%20Lucky)();  
        book.setCover(R.drawable.book5);  
        book.setTitle("Влейте в нее свое сердце. Как чашка за чашкой строилась STARBUCKS");  
        book.setAuthor("Говард Шульц, Дори Джонс Йенг");  
        booksList.add(book);  
  
        book = new [Book](http://www.google.com/search?hl=en&q=allinurl%3Abook+java.sun.com&btnI=I%27m%20Feeling%20Lucky)();  
        book.setCover(R.drawable.book6);  
        book.setTitle("Книга: Мероприятие на миллион. Быстрые деньги на чужих знаниях");  
        book.setAuthor("Андрей Парабеллум, Валерий Морозов");  
        booksList.add(book);  
  
        book = new [Book](http://www.google.com/search?hl=en&q=allinurl%3Abook+java.sun.com&btnI=I%27m%20Feeling%20Lucky)();  
        book.setCover(R.drawable.book7);  
        book.setTitle("Brand: Поп-арт роман");  
        book.setAuthor("Олег Сивун");  
        booksList.add(book);  
  
        book = new [Book](http://www.google.com/search?hl=en&q=allinurl%3Abook+java.sun.com&btnI=I%27m%20Feeling%20Lucky)();  
        book.setCover(R.drawable.book8);  
        book.setTitle("Путь собственника. От предпринимателя до председателя совета директоров");  
        book.setAuthor("Джейна Мэтьюз, Кэтрин Кэтлин");  
        booksList.add(book);  
  
        book = new [Book](http://www.google.com/search?hl=en&q=allinurl%3Abook+java.sun.com&btnI=I%27m%20Feeling%20Lucky)();  
        book.setCover(R.drawable.book9);  
        book.setTitle("Структура в кулаке: создание эффективной организации");  
        book.setAuthor("енри Минцберг");  
        booksList.add(book);  
  
        return booksList;  
    }

Step 5: Create Adapter for filling ListView with items:

package *net.joerichard.navigationdrawertutorial*;  
  
import *android.content.Context*;  
import *android.view.View*;  
import *android.view.ViewGroup*;  
import *android.widget.BaseAdapter*;  
import *android.widget.ImageView*;  
import *android.widget.TextView*;  
  
import *java.util.List*;  
  
*/\*\**  
*\* Created by joe on 10.08.15.*  
*\*/*  
public class LibraryAdapter extends BaseAdapter {  
  
    [Context](http://www.google.com/search?hl=en&q=allinurl%3Acontext+java.sun.com&btnI=I%27m%20Feeling%20Lucky) context;  
    List<Book> booksList;  
  
    public LibraryAdapter([Context](http://www.google.com/search?hl=en&q=allinurl%3Acontext+java.sun.com&btnI=I%27m%20Feeling%20Lucky) context, List<Book> booksList) {  
        this.context = context;  
        this.booksList = booksList;  
    }  
  
    @Override  
    public int getCount() {  
        return booksList.size();  
    }  
  
    @Override  
    public [Object](http://www.google.com/search?hl=en&q=allinurl%3Aobject+java.sun.com&btnI=I%27m%20Feeling%20Lucky) getItem(int position) {  
        return booksList.get(position);  
    }  
  
    @Override  
    public long getItemId(int position) {  
        return position;  
    }  
  
    @Override  
    public [View](http://www.google.com/search?hl=en&q=allinurl%3Aview+java.sun.com&btnI=I%27m%20Feeling%20Lucky) getView(int position, [View](http://www.google.com/search?hl=en&q=allinurl%3Aview+java.sun.com&btnI=I%27m%20Feeling%20Lucky) convertView, ViewGroup parent) {  
        [View](http://www.google.com/search?hl=en&q=allinurl%3Aview+java.sun.com&btnI=I%27m%20Feeling%20Lucky) view = parent.inflate(context, R.layout.listitem\_book, null);  
  
        [Book](http://www.google.com/search?hl=en&q=allinurl%3Abook+java.sun.com&btnI=I%27m%20Feeling%20Lucky) book = ([Book](http://www.google.com/search?hl=en&q=allinurl%3Abook+java.sun.com&btnI=I%27m%20Feeling%20Lucky)) getItem(position);  
  
        ImageView ivCover = (ImageView) view.findViewById(R.id.ivCover);  
        ivCover.setImageResource(book.getCover());  
  
        TextView tvTitle = (TextView) view.findViewById(R.id.tvTitle);  
        tvTitle.setText(book.getTitle());  
  
        TextView tvAuthor = (TextView) view.findViewById(R.id.tvAuthor);  
        tvAuthor.setText(book.getAuthor());  
  
        return view;  
    }  
}

Step 6: Last step to connect everything.

[ListView](http://www.google.com/search?hl=en&q=allinurl%3Alistview+java.sun.com&btnI=I%27m%20Feeling%20Lucky) lvLibrary = ([ListView](http://www.google.com/search?hl=en&q=allinurl%3Alistview+java.sun.com&btnI=I%27m%20Feeling%20Lucky)) view.findViewById(R.id.lvLibrary);  
        List<Book> booksList = getBooksList();  
        LibraryAdapter adapter = new LibraryAdapter(getActivity(), booksList);  
        lvLibrary.setAdapter(adapter);

Result:  
[](http://joerichard.net/wp-content/uploads/2015/08/Screenshot_2015-08-10-16-35-16.png)

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