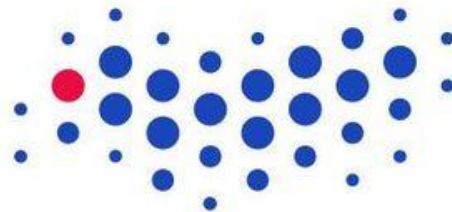


Практикум на ЭВМ.

Программирование под Android

Занятие 3



LayoutInflater

LayoutInflater

- Создаёт иерархию объектов интерфейса из файла ресурса.

```
LayoutInflater inflater = (LayoutInflater)context.  
    getSystemService(Context.LAYOUT_INFLATER_SERVICE);  
  
View view = inflater.inflate(R.layout.item_list, null, false);
```

Списки

ScrollView

- Данные не помещаются на экран
- Только 1 дочерний элемент

ScrollView

```
<ScrollView
    android:layout_width="match_parent"
    android:layout_height="match_parent">
    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="vertical">
        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content" />
        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content" />
    </LinearLayout>
</ScrollView>
```

ScrollView

```
group = (ViewGroup)findViewById(R.id.root_container);

for (int i = 0; i < 10_000; i++) {
    TextView tv = new TextView(this);
    tv.setText("Item #" + i);

    group.addView(tv, new ViewGroup.LayoutParams(
        ViewGroup.LayoutParams.MATCH_PARENT, 80));
}
```

ScrollView

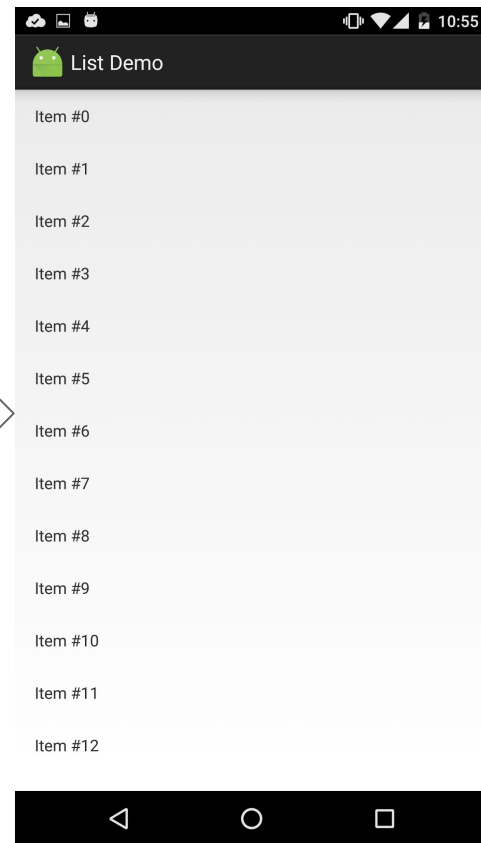
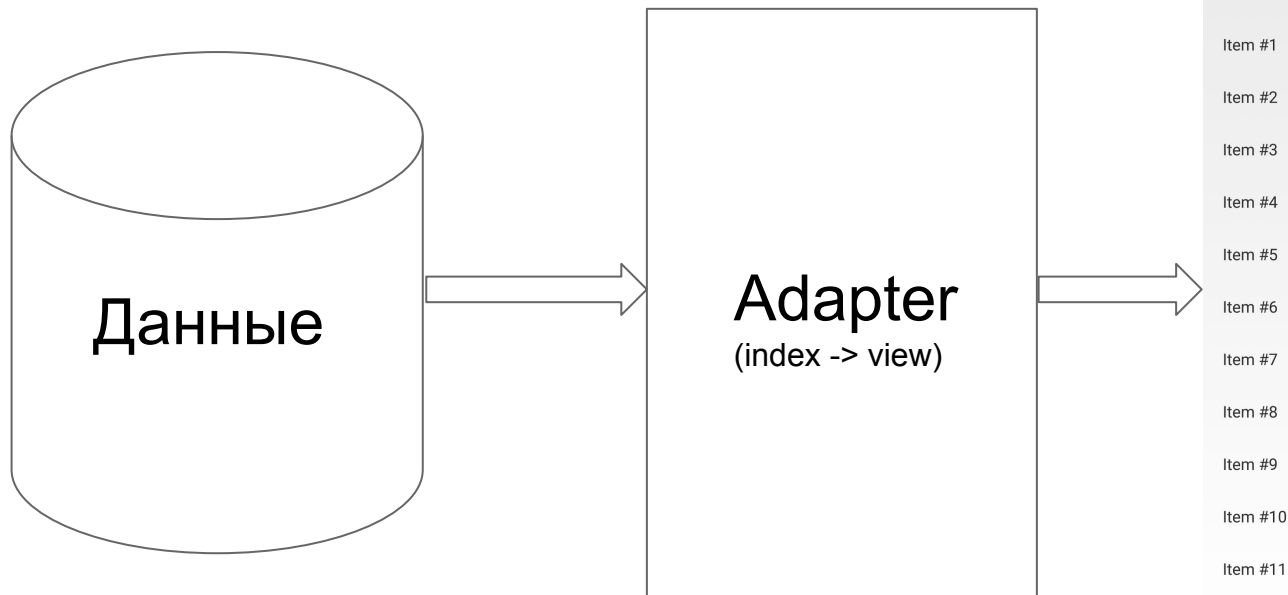
- Много данных:
 - Медленно
 - Много ОЗУ

RecyclerView

- Пришёл на смену `ListView`
- `build.gradle`:

```
dependencies {  
    compile "com.android.support:recyclerview-v7:24.2.1"  
}
```

Adapter



Adapter

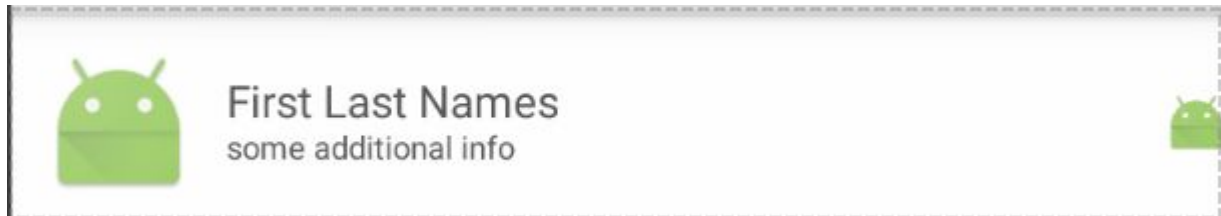
```
public static abstract class Adapter<VH extends ViewHolder>
```

```
private class SimpleRecyclerAdapter extends
```

```
RecyclerView.Adapter<SimpleRecyclerAdapter.ViewHolder>
```

ViewHolder

- Настройка одной ячейки



```
public void bindView(View view, int position) {  
    TextView name = view.findViewById(R.id.name);  
    TextView additional = view.findViewById(R.id.additional);  
    ImageView image = view.findViewById(R.id.image);  
    ...  
}
```

ViewHolder

```
class ViewHolder extends RecyclerView.ViewHolder {  
    final TextView firstLine;  
    final TextView secondLine;  
  
    public ViewHolder(View itemView) {  
        super(itemView);  
  
        firstLine = (TextView)itemView.findViewById(R.id.fist_line);  
        secondLine = (TextView)itemView.findViewById(R.id.second_line);  
    }  
}
```

Переиспользование View

```
@Override
public ViewHolder onCreateViewHolder(
    ViewGroup parent, int viewType) {
    return new ViewHolder(
        li.inflate(R.layout.item_list, parent, false));
}
```

Переиспользование View

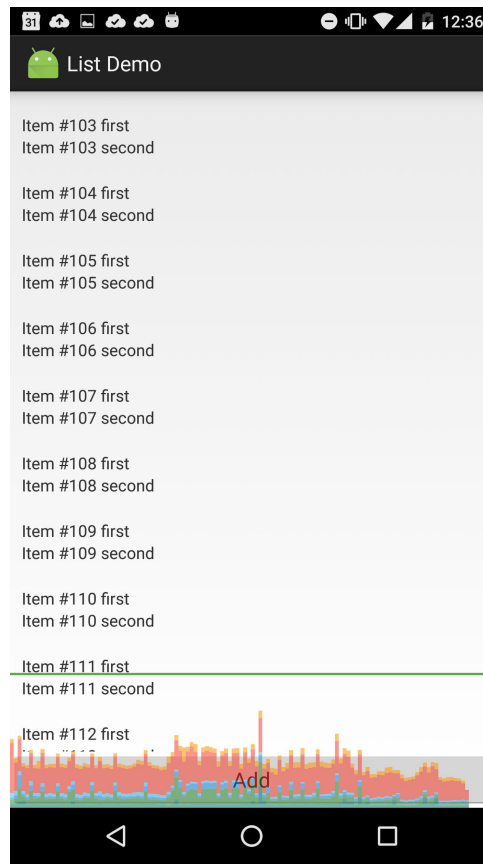
```
@Override
public void onBindViewHolder(ViewHolder holder, int position) {
    String str = items.get(position);

    holder.firstLine.setText(str + " first");
    holder.secondLine.setText(str + " second");
}
```

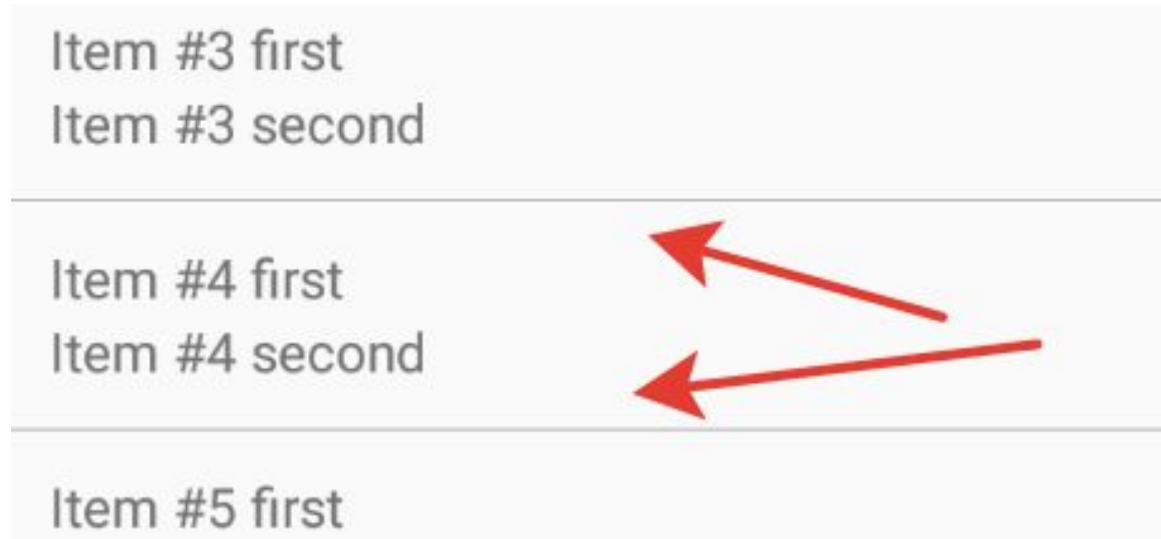
Обработка нажатий

```
public ViewHolder(View itemView) {  
    super(itemView);  
    // ...  
    itemView.setOnClickListener(clickListener);  
}  
  
@Override  
public void onClick(View v) {  
    ViewHolder holder =  
        (ViewHolder)recyclerView.getChildViewHolder(v);  
    int position = recyclerView.getAdapterPositionFor(holder);  
}
```


Сравнение



ItemDecorator



ItemDecorator

```
public final class DividerItemDecorator extends RecyclerView.ItemDecoration {  
    @Override  
    public void getItemOffsets(Rect outRect, View view,  
        RecyclerView parent, RecyclerView.State state) {  
        ...  
    }  
  
    @Override  
    public void onDrawOver(Canvas c, RecyclerView parent,  
        RecyclerView.State state) {  
        ...  
    }  
}
```

```
recyclerView.addItemDecoration(new DividerItemDecorator(this));
```

LayoutManager

- LinearLayoutManager
- GridLayoutManager

```
recyclerView.setLayoutManager(new LinearLayoutManager(this));
```

Вопросы?