Trabalho de Persistência em Android

Programação para Dispositivos Móveis

Jean Barcellos Victor Goedert

Definição Etapas do Trabalho

- Etapa 1: Modelagem UML do sistema (simplificada) e uma modelagem ER (Entidade-Relacionamento) do banco de dados;
- ► Etapa 2: Desenvolvimento da aplicação utilizando o Android Studio.
- Etapa 3: Apresentação do AP.

Cadastro de Livros Sistema proposto

- Sistema simples de registro de Livros
- Atingindo os requisitos mínimos o sistema possui:
 - Persistência SQLite
 - Cinco Activities
 - Entrada de Dados
 - Buttons;
 - ListViews;
 - Android Spinner
 - (recurso a mais não abordado na aula.)

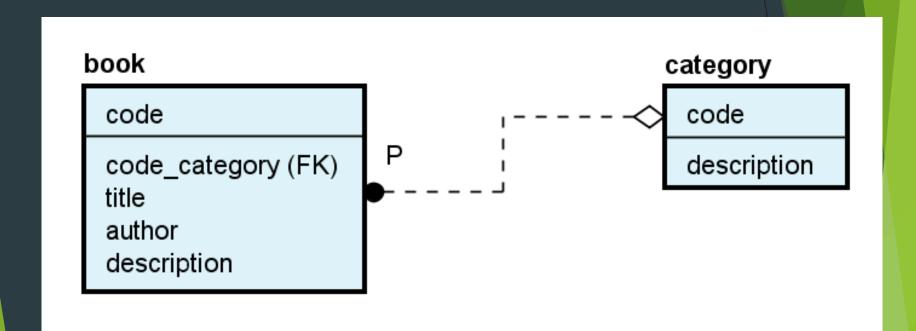


Modelagem UML do Sistema

Etapa 1

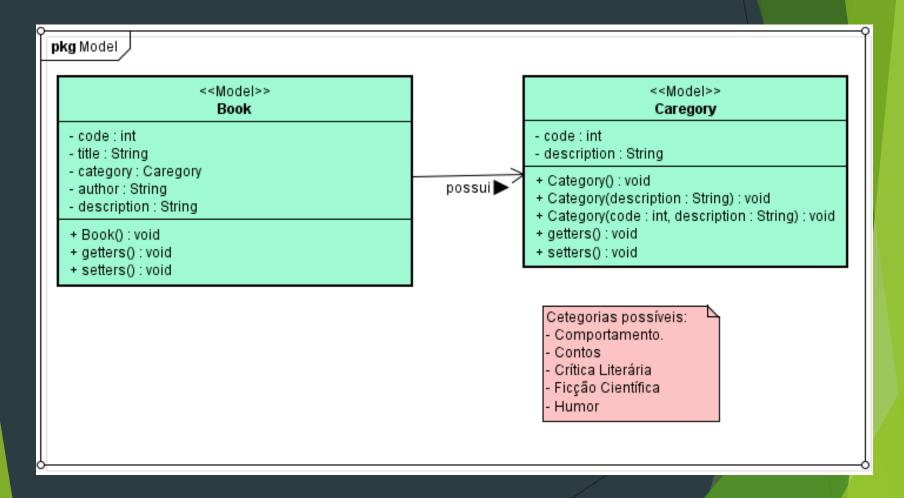
ER Diagram

Etapa 1 - Modelagem UML



Model Class Diagram

Etapa 1 - Modelagem UML



DAO Class Diagram

Etapa 1 - Modelagem UML

pkg Dao

<<DA0>>

BookDao

- caregoryDao : CategoryDao
- + insert(category : Book) : boolean
- + update(category : Book) : boolean
- + delete(category : Book) : boolean
- + findAll() : List<Book>
- + findByTitle() : List<Book>
- + find(code : int) : Book

<<DA0>>

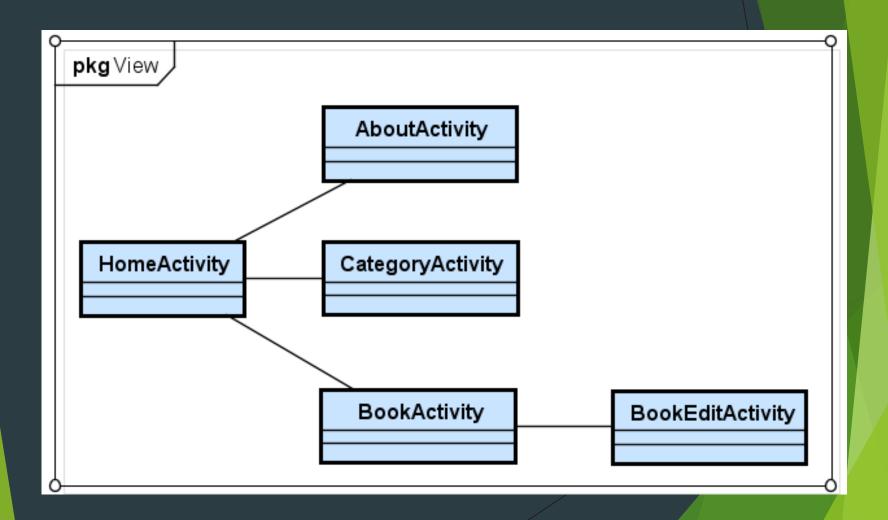
CategoryDao

- + insert(category : Caregory) : boolean
- + update(category : Caregory) : boolean
- + delete(category : Caregory) : boolean
- + findAll() : List<Caregory>
- + find(code : int) : Caregory

NOTA: Como o objeto Book possui uma associação com o Category, precisamos do DAO de Category para buscar o objeto equivalente.

View Class Diagram

Etapa 1 - Modelagem UML

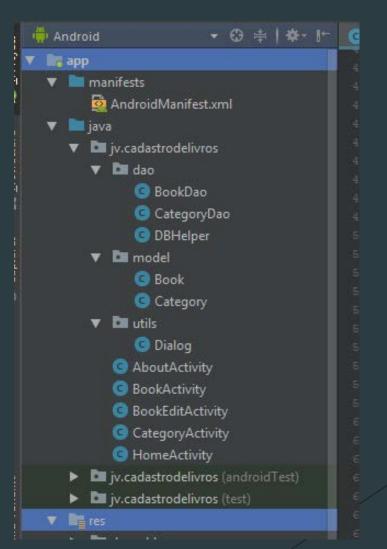


Desenvolvimento da aplicação utilizando o Android Studio

Etapa 2

Structure

Etapa 2 - Desenvolvimento



Trechos de código

Etapa 2 - Desenvolvimento

```
public class DBHelper extends SQLiteOpenHelper {
private static final int DATABASE VERSION = 1;
private static final String DATABASE NAME = "trabalho.db";
DBHelper(Context context) { super(context, DATABASE NAME, factory: null, DATABASE VERSION); }
 @Override
 public void onCreate(SQLiteDatabase db) {
     String sql = "CREATE TABLE IF NOT EXISTS " + Category. TABLE NAME + " (" +
             Category.COLUMN NAME CODE + " INTEGER(11) NOT NULL PRIMARY KEY, " +
             Category.COLUMN NAME DESCRIPTION + " VARCHAR(255) " +
     db.execSQL(sql);
     String sql2 = "CREATE TABLE IF NOT EXISTS " + Book. TABLE NAME + " (" +
             Book. COLUMN NAME CODE + " INTEGER(11) NOT NULL PRIMARY KEY, " +
             Book.COLUMN NAME CATEGORY CODE + " INTEGER(11), " +
             Book. COLUMN NAME TITLE + " VARCHAR (255), " +
             Book. COLUMN NAME DESCRIPTION + " VARCHAR (255), " +
             Book. COLUMN NAME AUTHOR + " VARCHAR (255) " +
     db.execSQL(sq12);
```

Trechos de código

Etapa 2 - Desenvolvimento

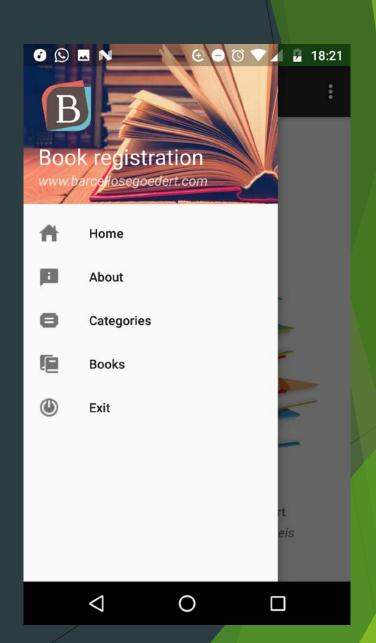
```
public class BookEditActivity extends AppCompatActivity implements View.OnClickListener
 private CategoryDao categoryDao;
 private BookDao bookDao;
 // Elementos
 private EditText textCode;
 private EditText textAuthor;
 private EditText textTitle;
 private EditText textDescription;
 private Category comboCategory;
 List<Category> categories = new ArrayList<>();
 ArrayAdapter adapter;
 @Override
 protected void onCreate(Bundle savedInstanceState) {...}
 @Override
 public void onClick(View view) {...}
 // Limpar o fomularios
 public void clearForm() {...}
```

Demonstração do App

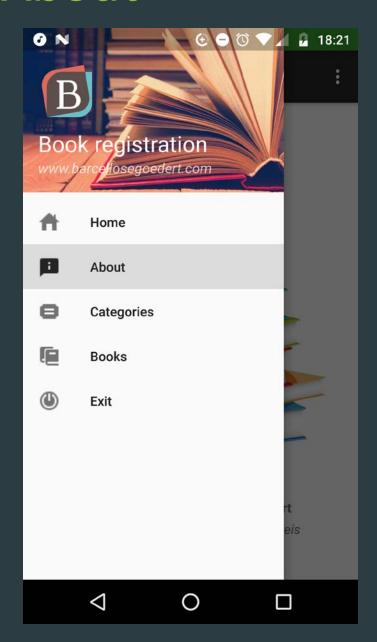
Etapa 3

Home e Menu





About





Book registration

About

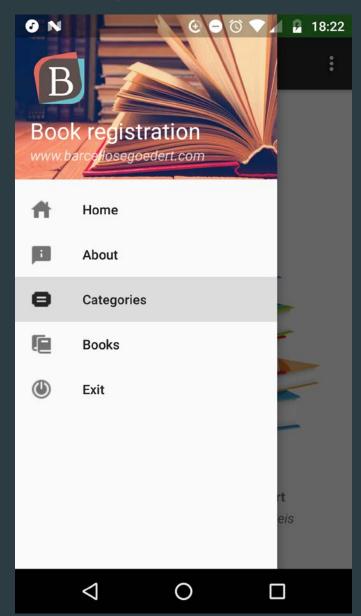
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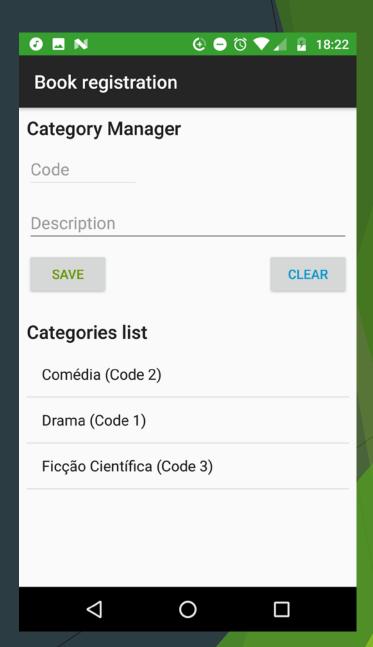
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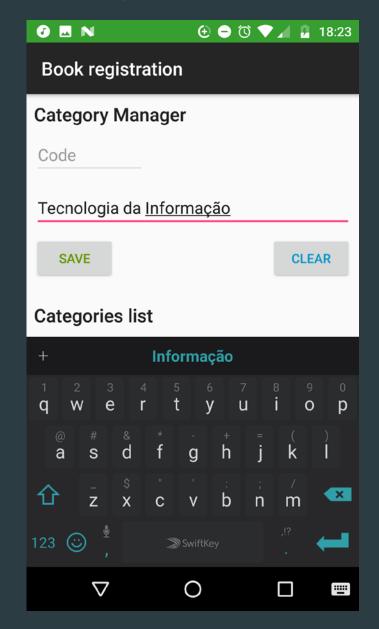


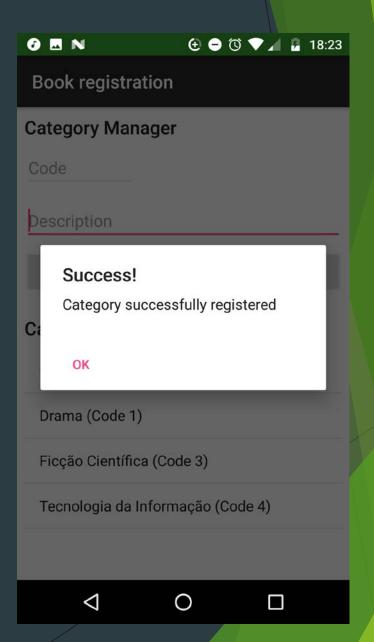


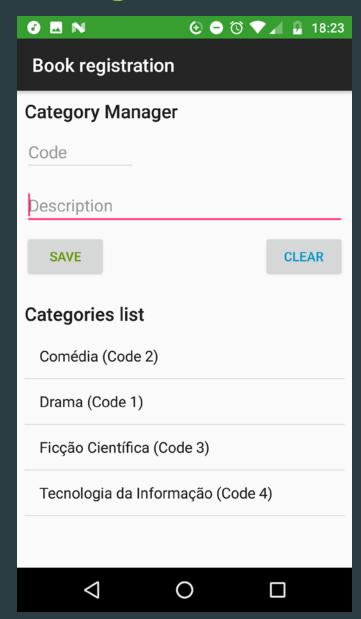


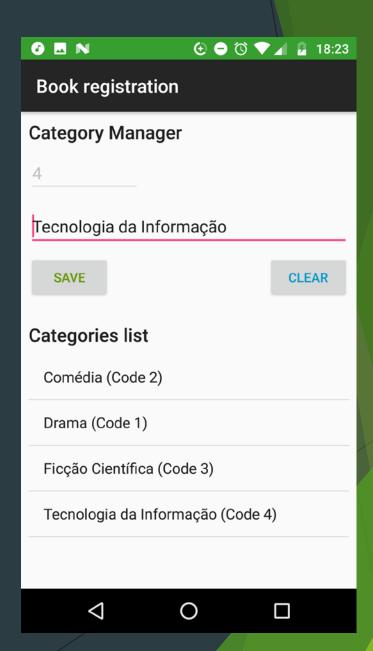


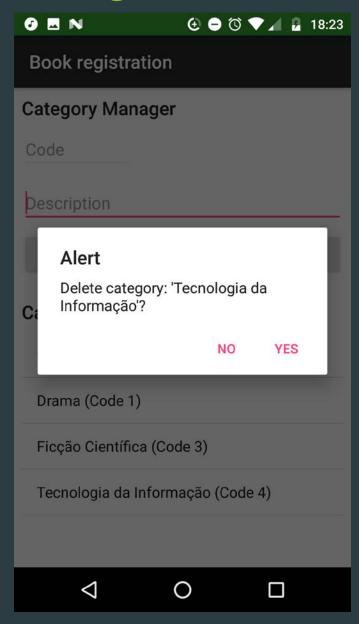


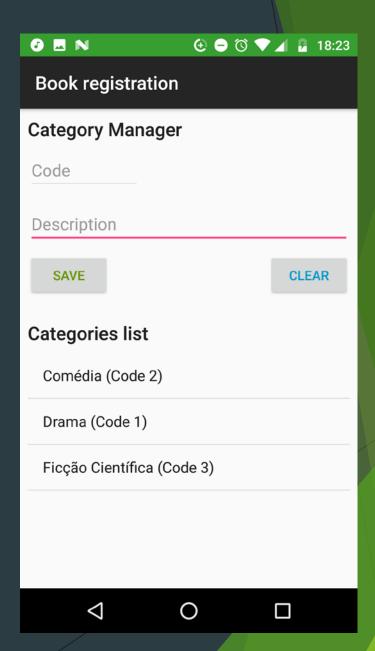


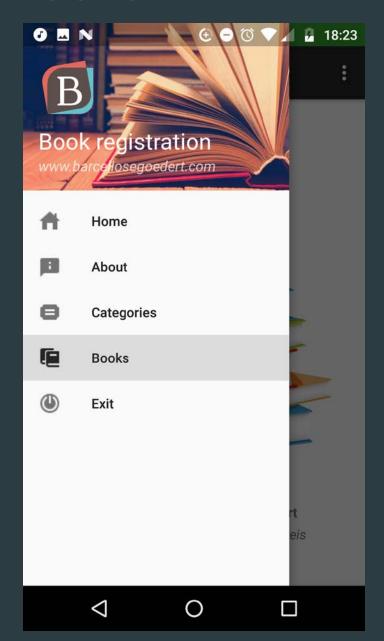


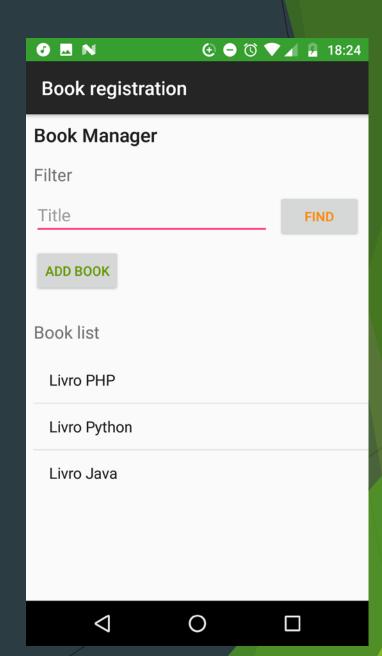


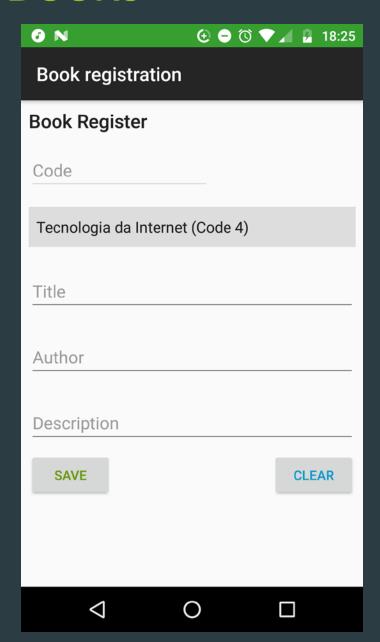


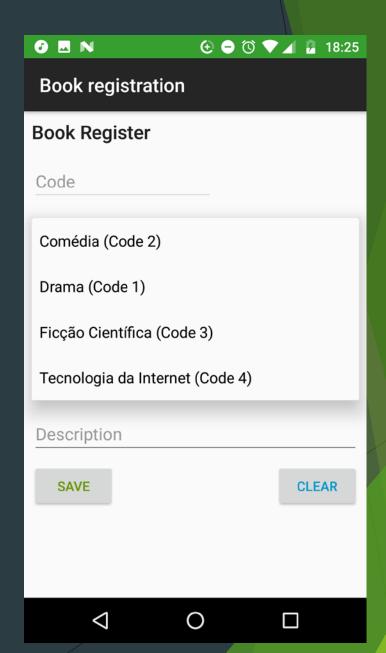


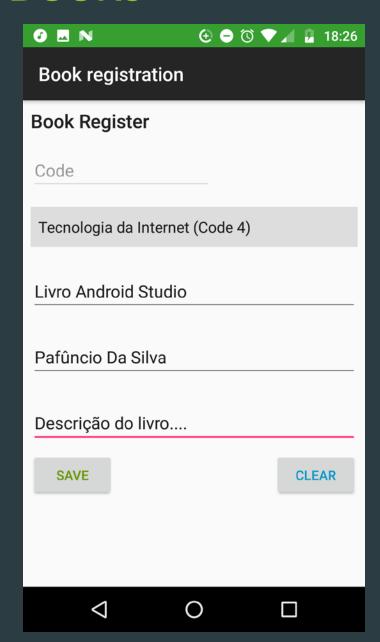


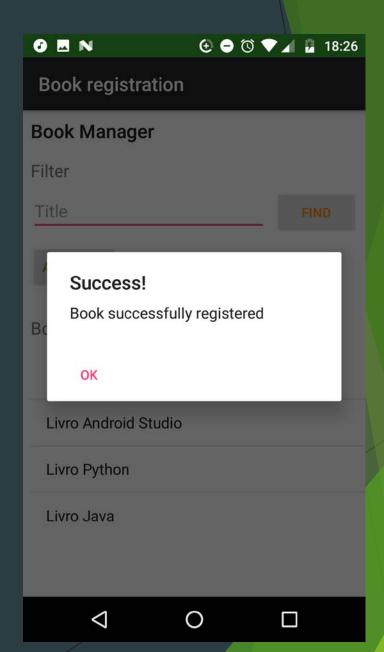


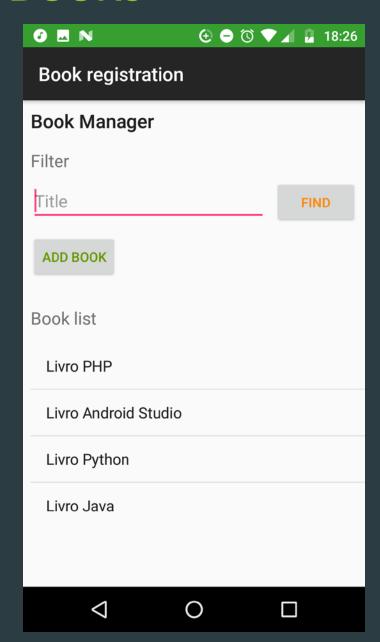


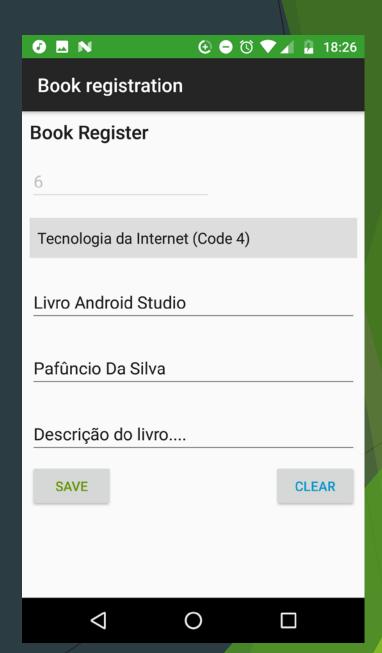


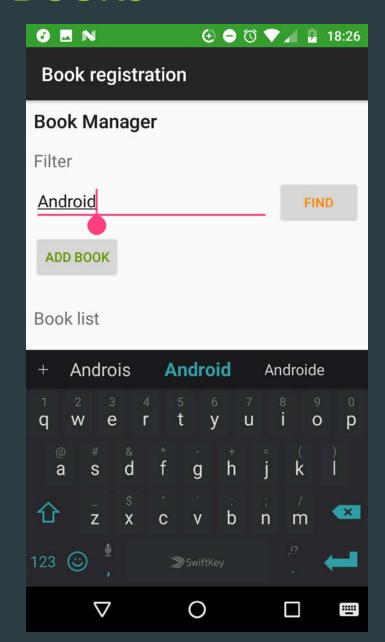


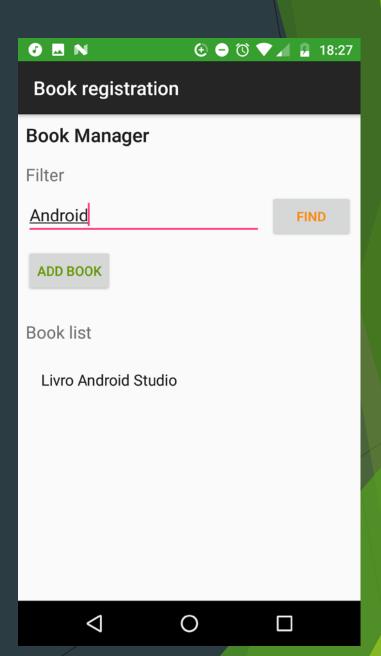


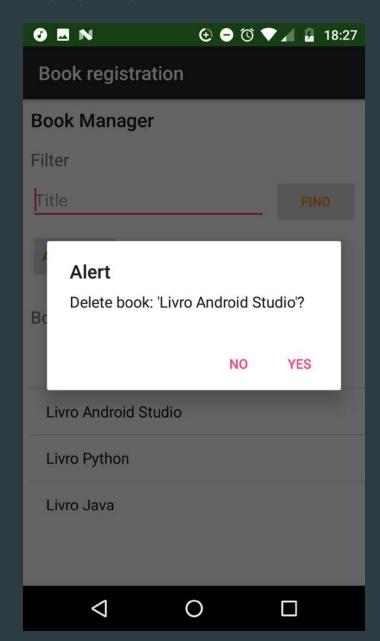


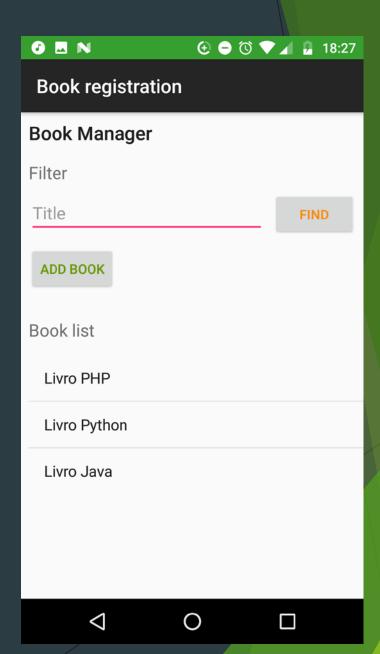












Gratos!

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