

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.)



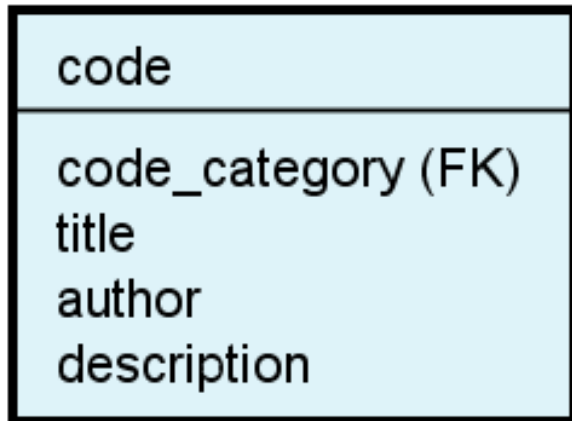
Modelagem UML do Sistema

Etapa 1

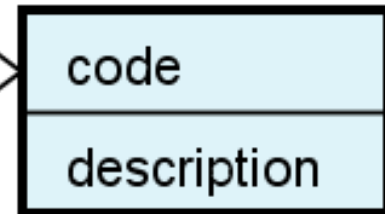
ER Diagram

Etapa 1 - Modelagem UML

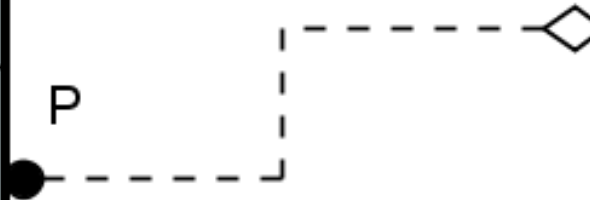
book



category

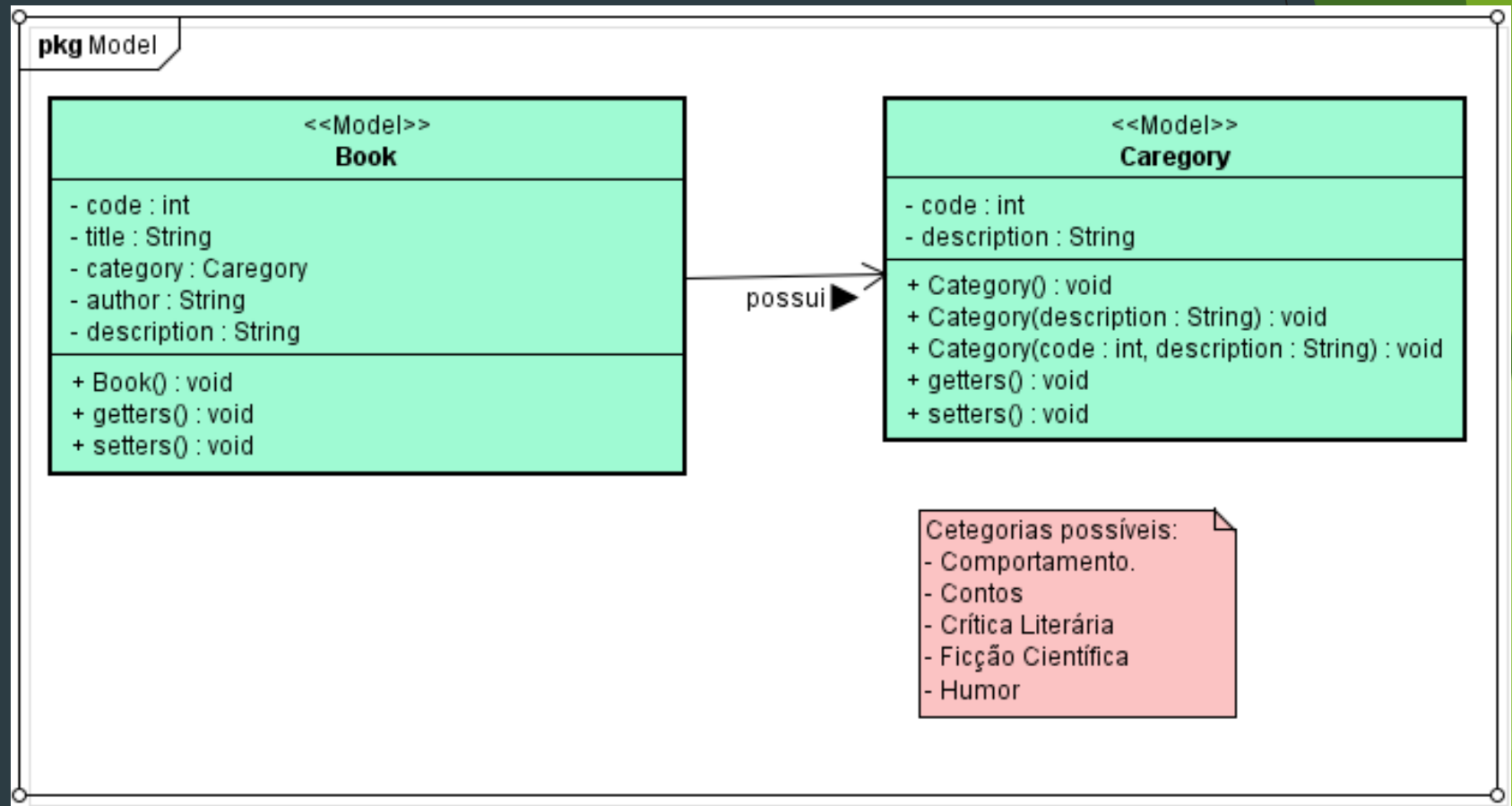


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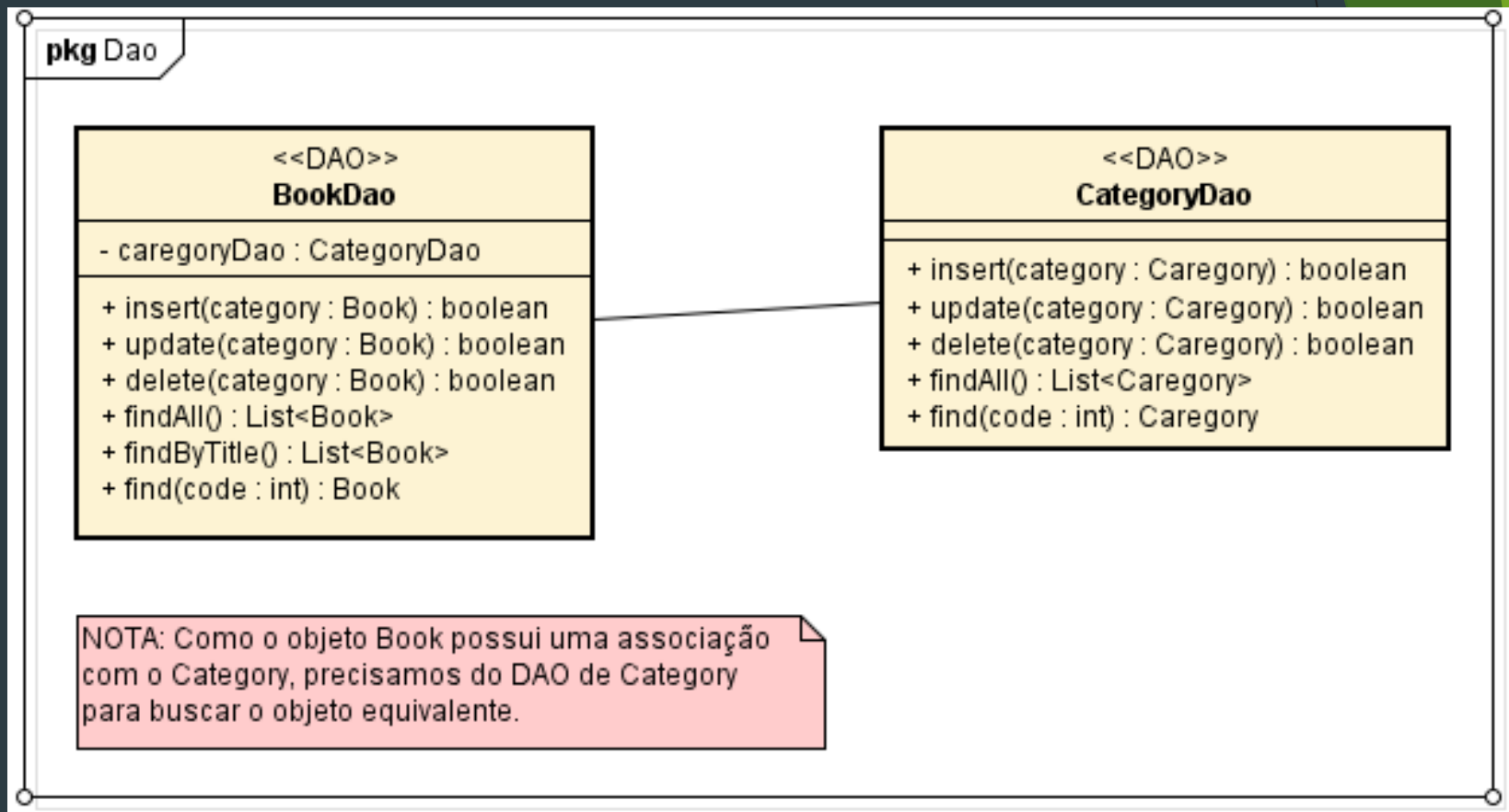
Model Class Diagram

Etapa 1 - Modelagem UML



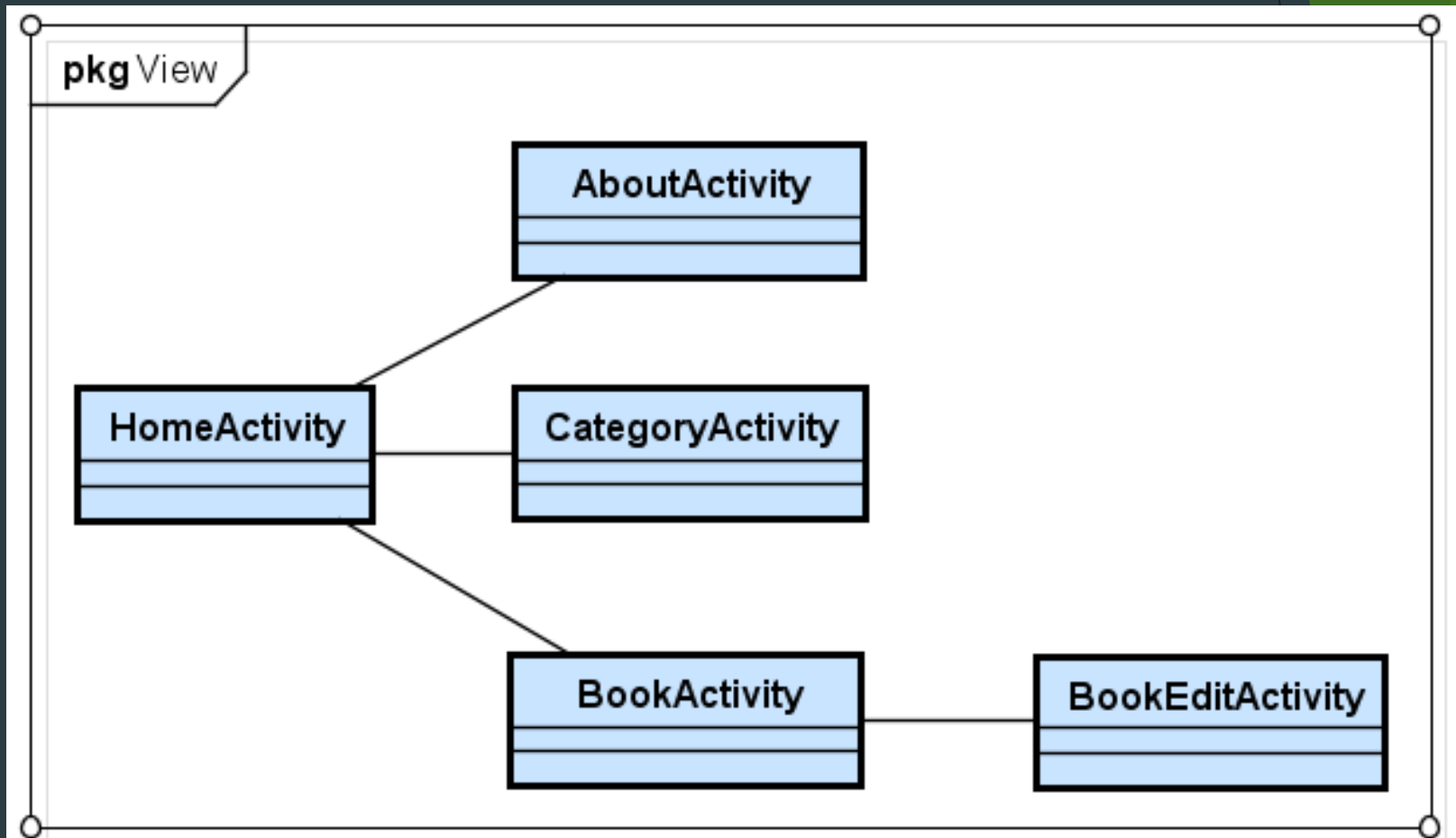
DAO Class Diagram

*Eta*pa 1 - Modelagem UML



View Class Diagram

Etapa 1 - Modelagem UML

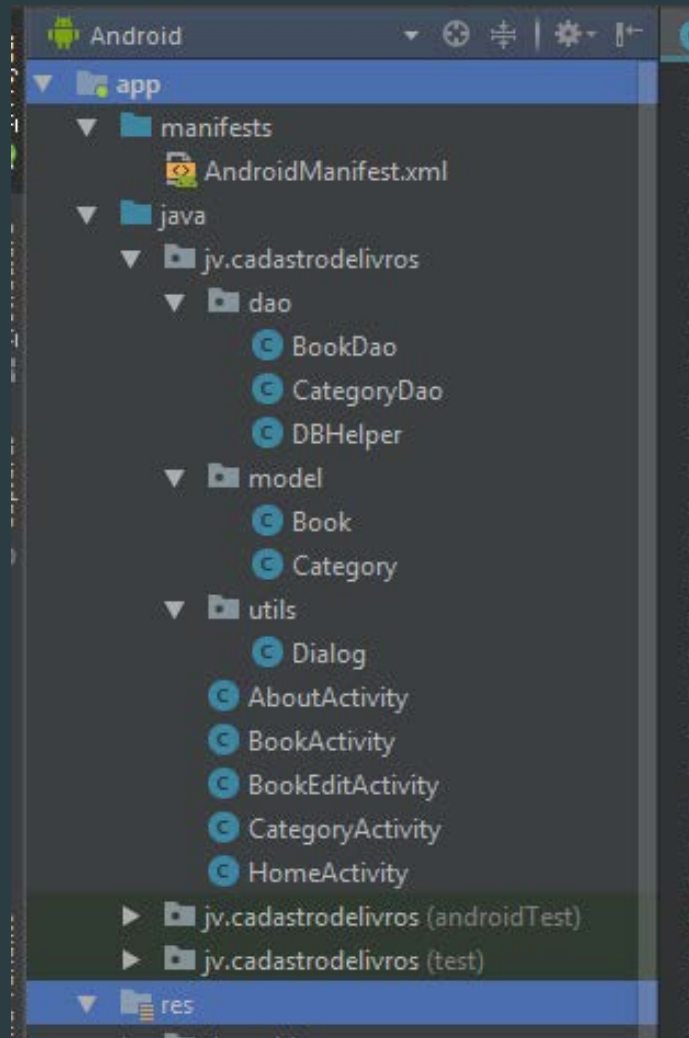


Desenvolvimento da aplicação utilizando o Android Studio

Etapa 2

Structure

*Eta*pa 2 - Desenvolvimento



Trechos de código

*Eta*pa 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) {

        // Create table description
        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);

        // Create books
        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(sql2);
    }
}
```

Trechos de código

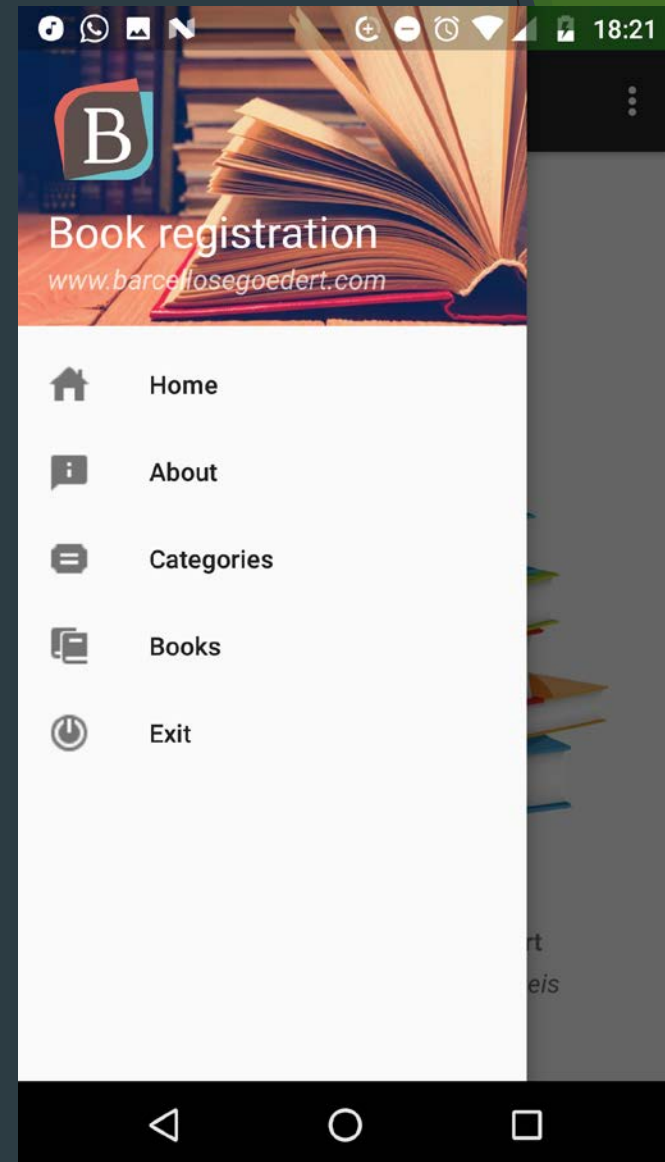
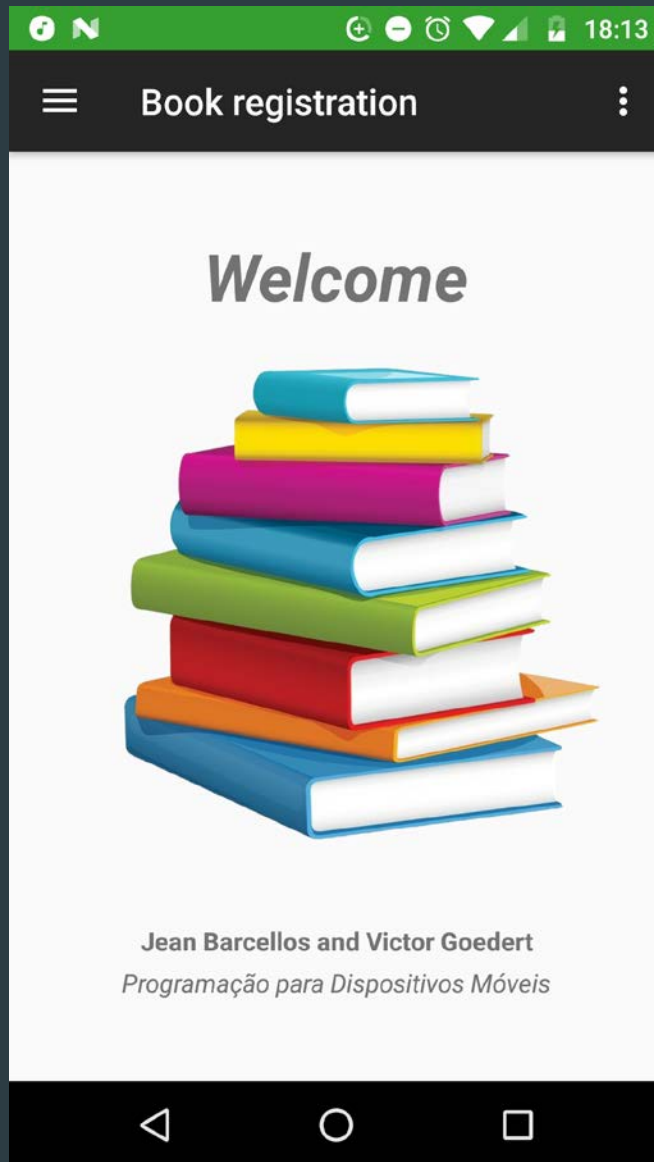
Etapas 2 - Desenvolvimento

```
public class BookEditActivity extends AppCompatActivity implements View.OnClickListener {  
  
    // DAOs  
    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() {...}
```

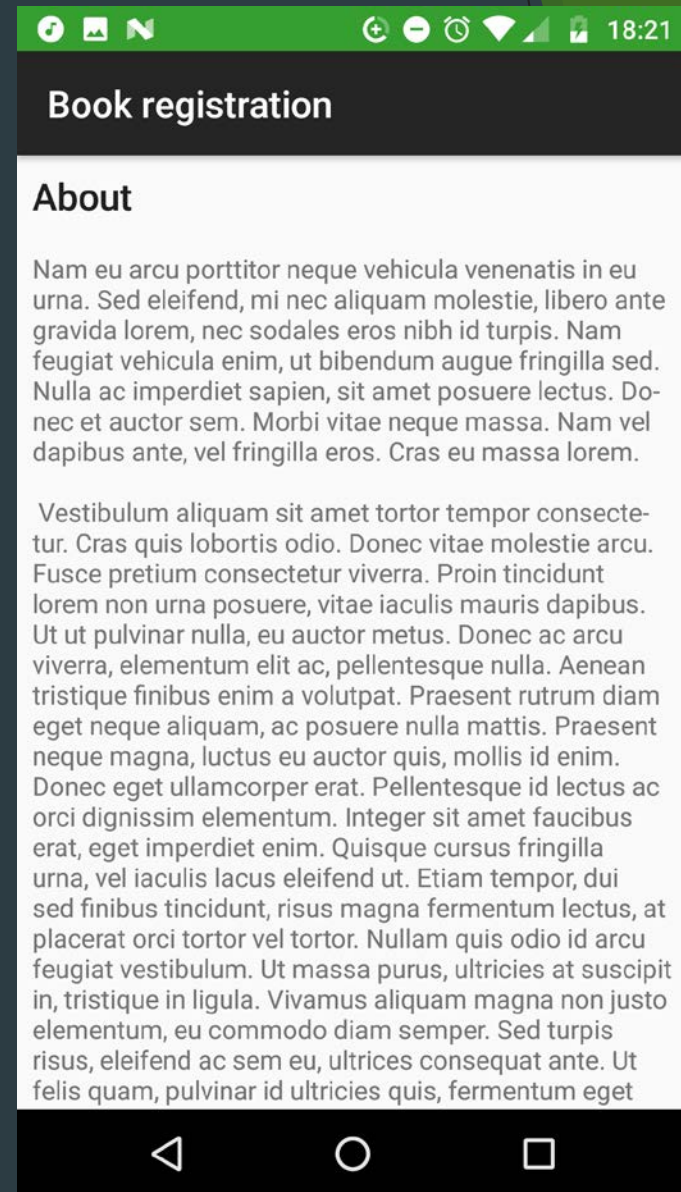
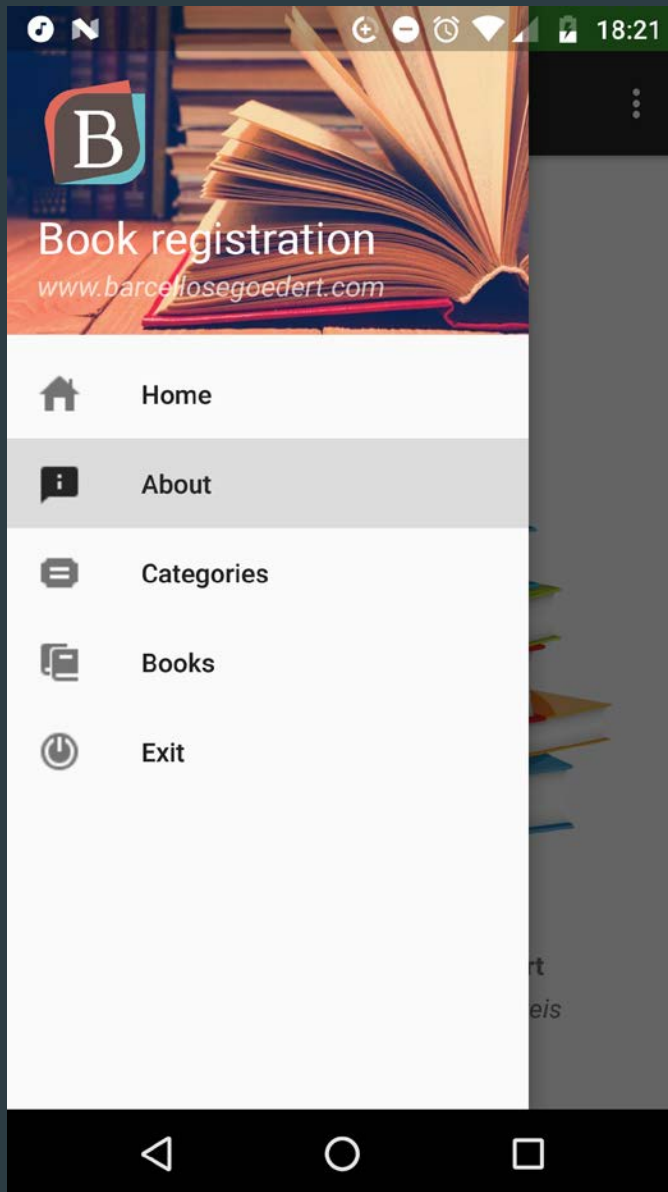
Demonstração do App

Etapa 3

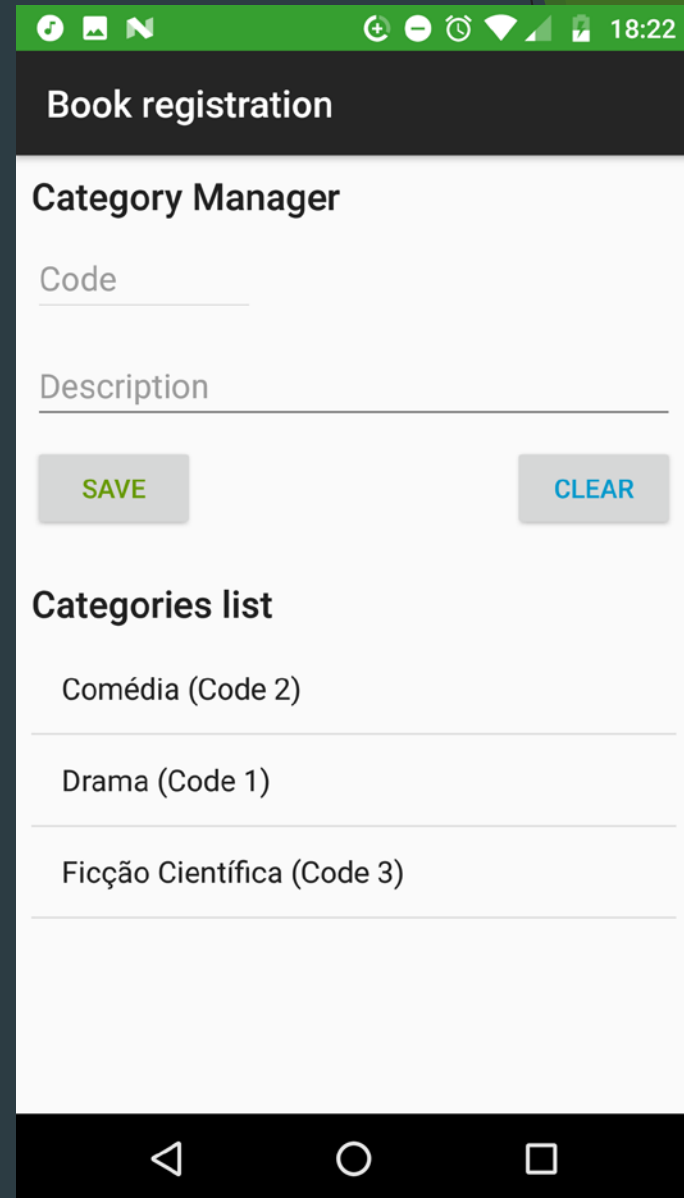
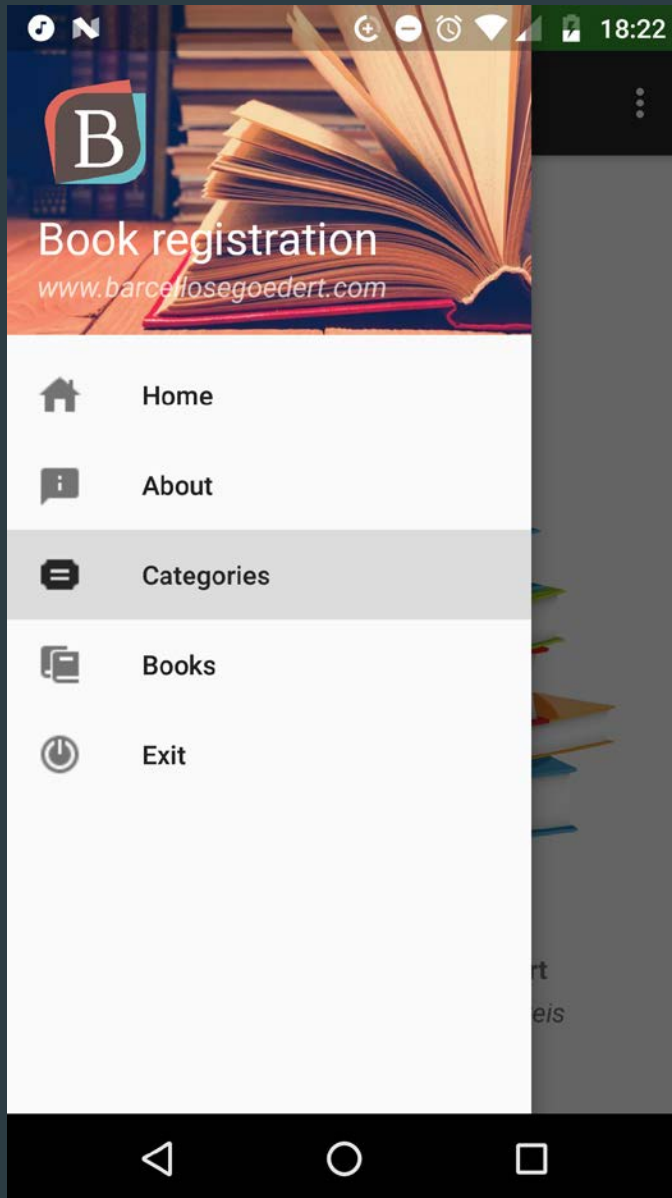
Home e Menu



About



Categories



Categories

Book registration

Category Manager

Code

Tecnologia da Informação

SAVE CLEAR

Categories list

+ Informação

1 2 3 4 5 6 7 8 9 0
q w e r t y u i o p
@ # & * - + = ()
a s d f g h j k l
↑ _ \$ % ^ & ' : ; /
123 ☺ 🔊 SwiftKey .!?

Book registration

Category Manager

Code

Description

Success!
Category successfully registered
OK

Drama (Code 1)

Ficção Científica (Code 3)

Tecnologia da Informação (Code 4)

Categories

Book registration

Category Manager

Code

Description

Categories list

- Comédia (Code 2)
- Drama (Code 1)
- Ficção Científica (Code 3)
- Tecnologia da Informação (Code 4)

Book registration

Category Manager

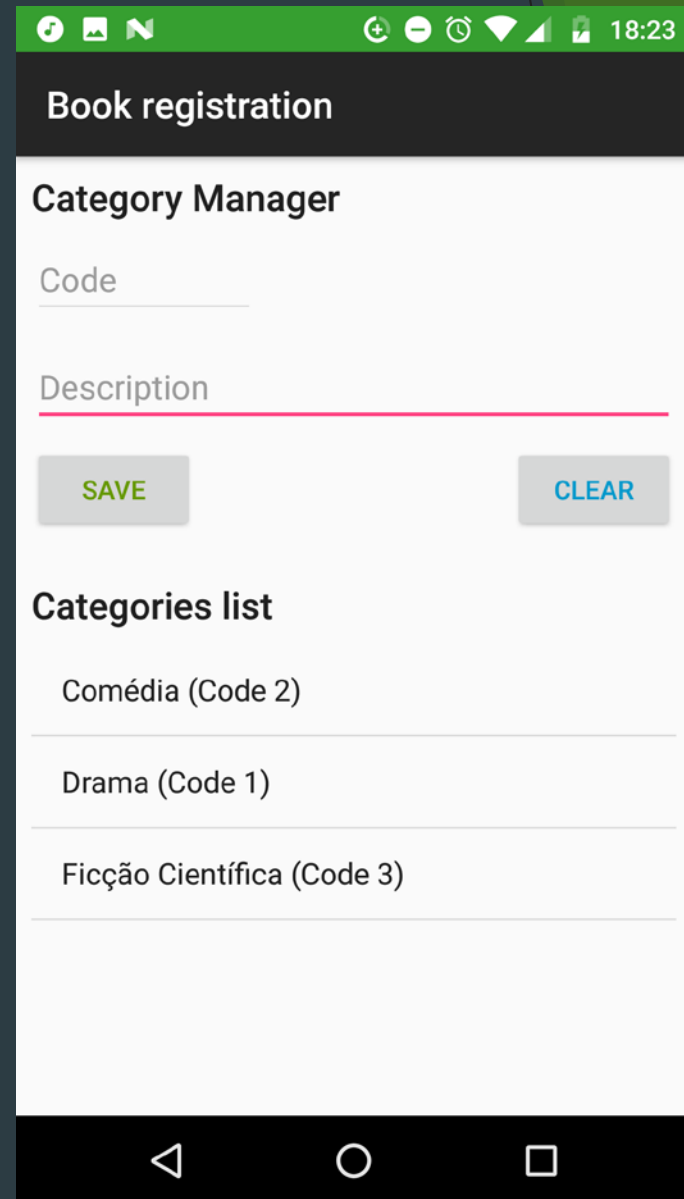
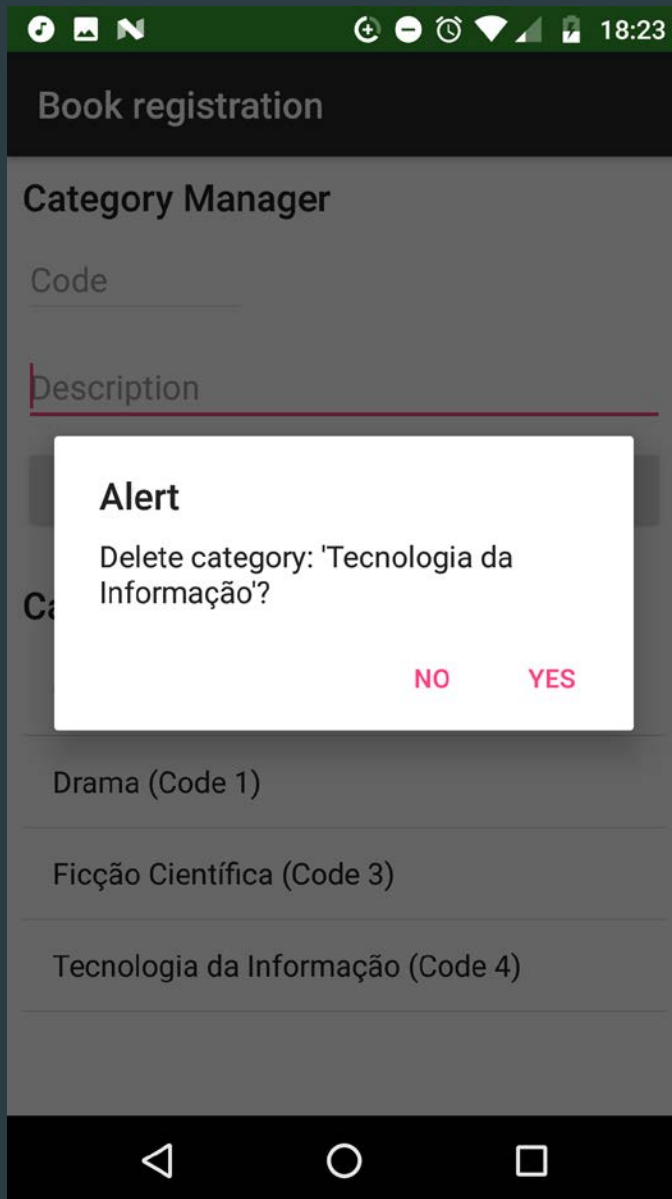
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Tecnologia da Informação

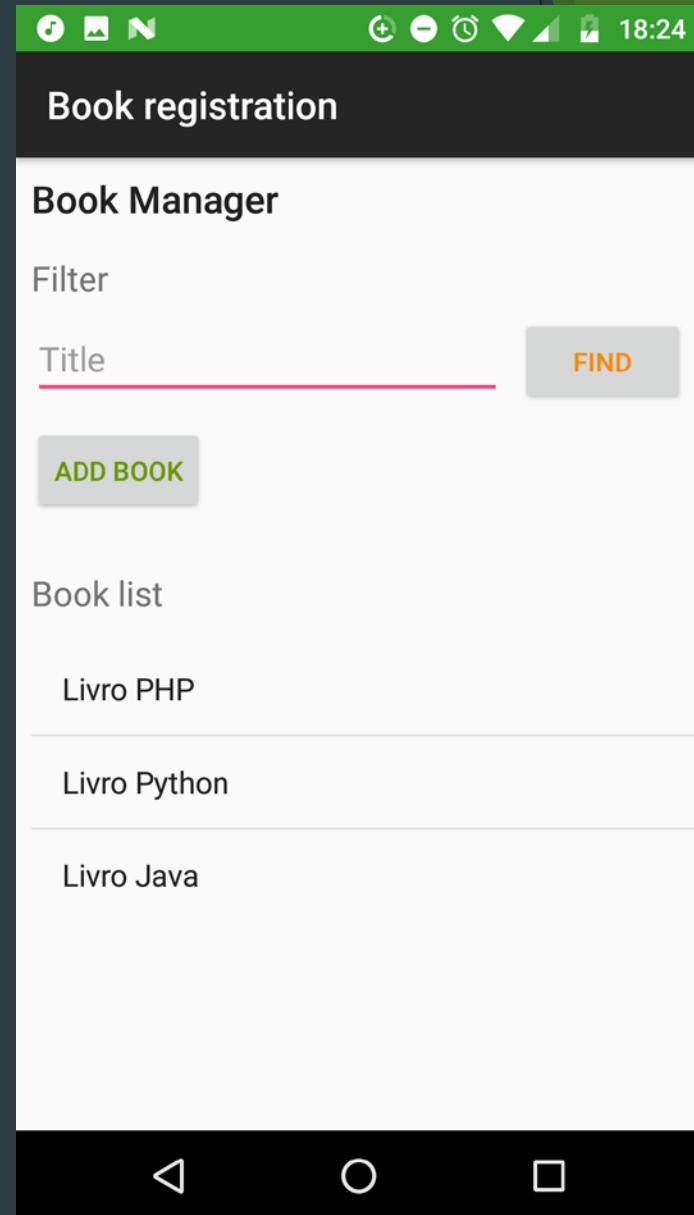
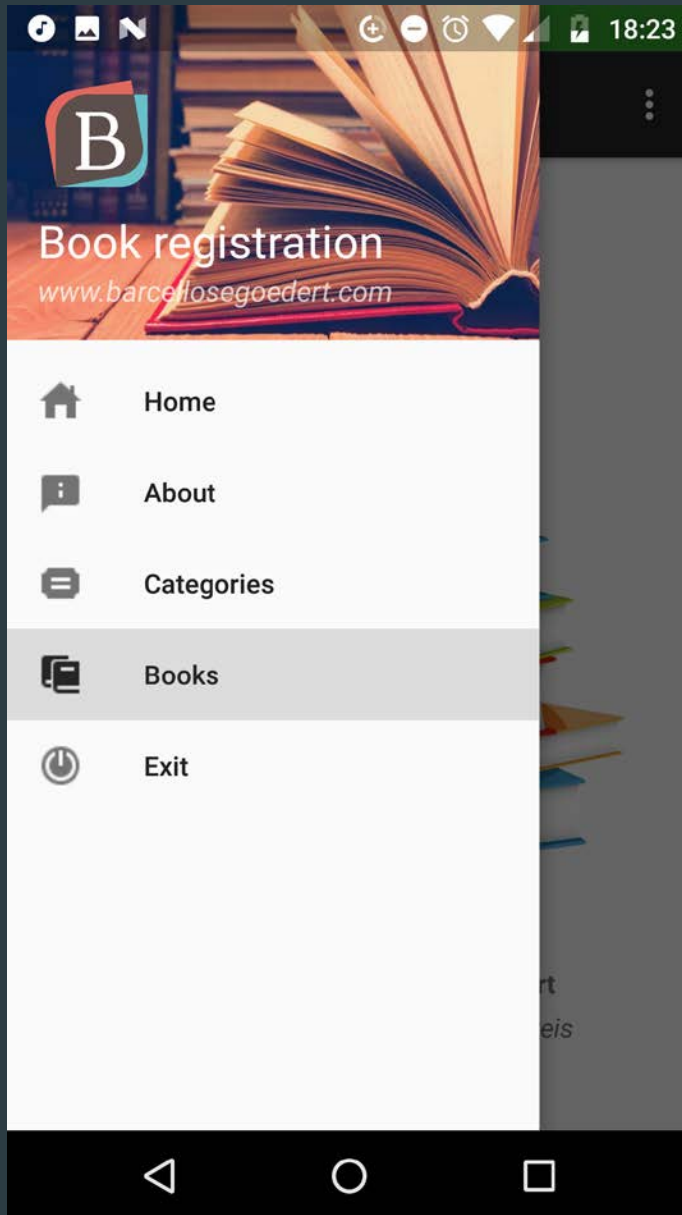
Categories list

- Comédia (Code 2)
- Drama (Code 1)
- Ficção Científica (Code 3)
- Tecnologia da Informação (Code 4)

Categories



Books



Books

Book registration

Book Register

Code

Tecnologia da Internet (Code 4)

Title

Author

Description

SAVE CLEAR

Book registration

Book Register

Code

Comédia (Code 2)

Drama (Code 1)

Ficção Científica (Code 3)

Tecnologia da Internet (Code 4)

Description

SAVE CLEAR

Books

Book registration

Book Register

Code

Tecnologia da Internet (Code 4)

Livro Android Studio

Pafûncio Da Silva

Descrição do livro....

SAVE CLEAR

Book registration

Book Manager

Filter

Title

FIND

Success!

Book successfully registered

OK

Livro Android Studio

Livro Python

Livro Java

Books

Book registration

Book Manager

Filter

Title

FIND

ADD BOOK

Book list

Livro PHP

Livro Android Studio

Livro Python

Livro Java

Book registration

Book Register

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Tecnologia da Internet (Code 4)

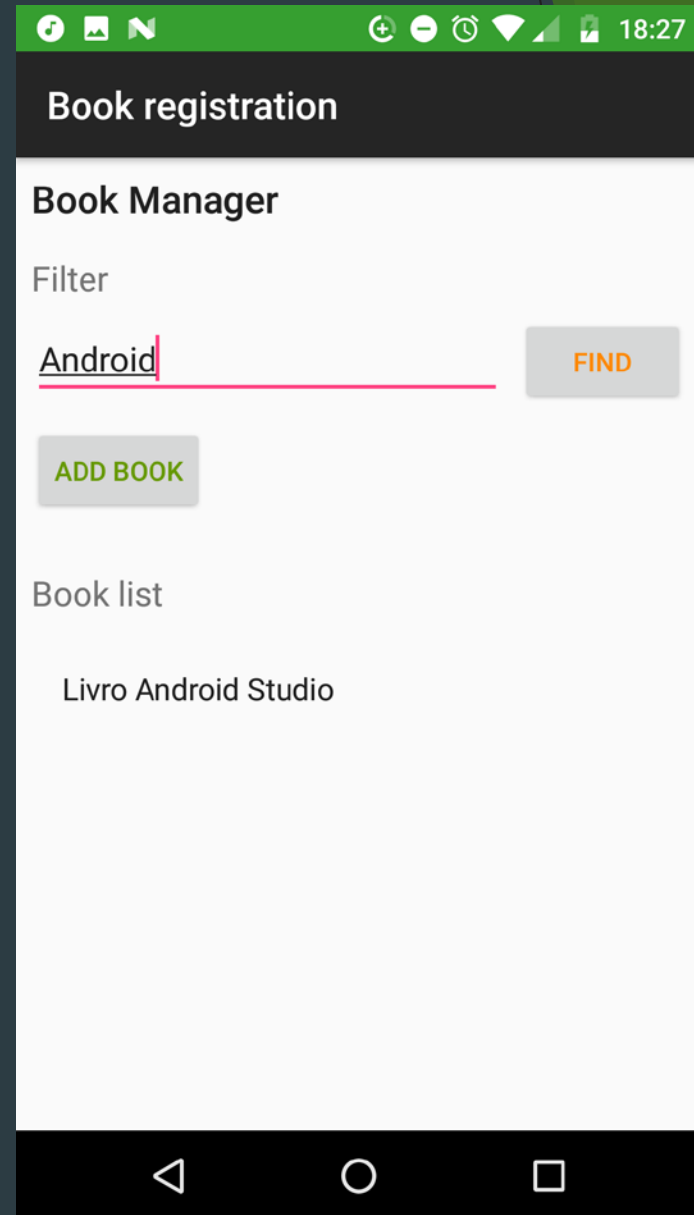
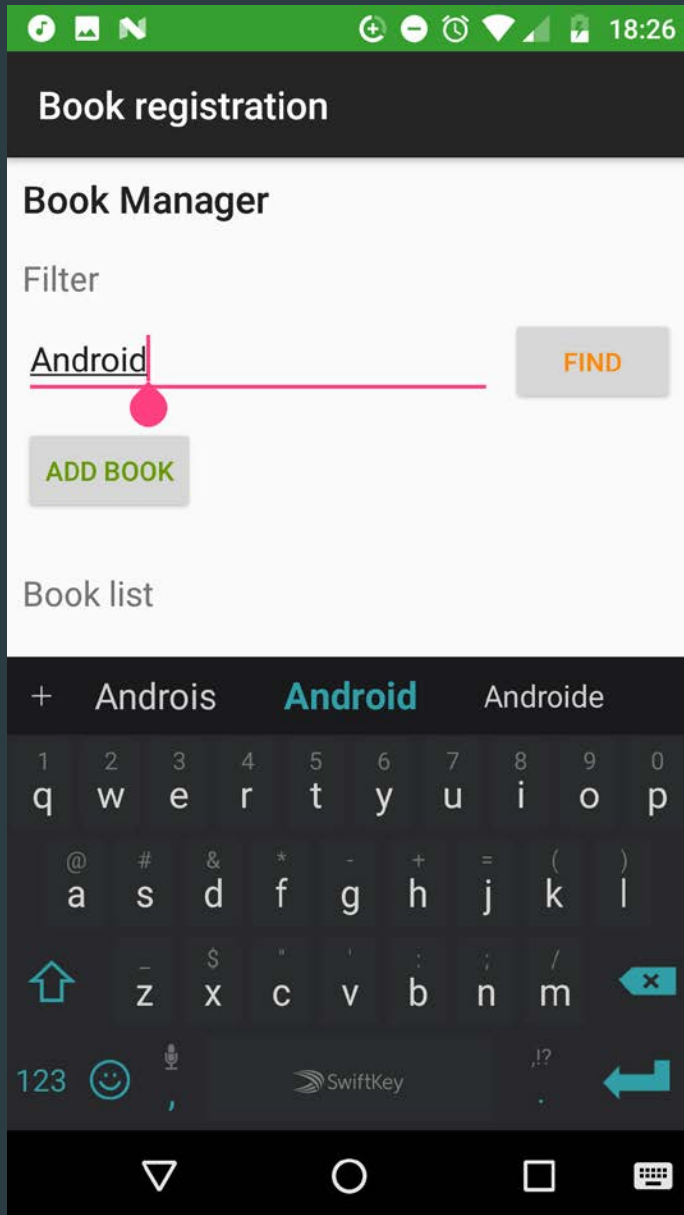
Livro Android Studio

Pafûncio Da Silva

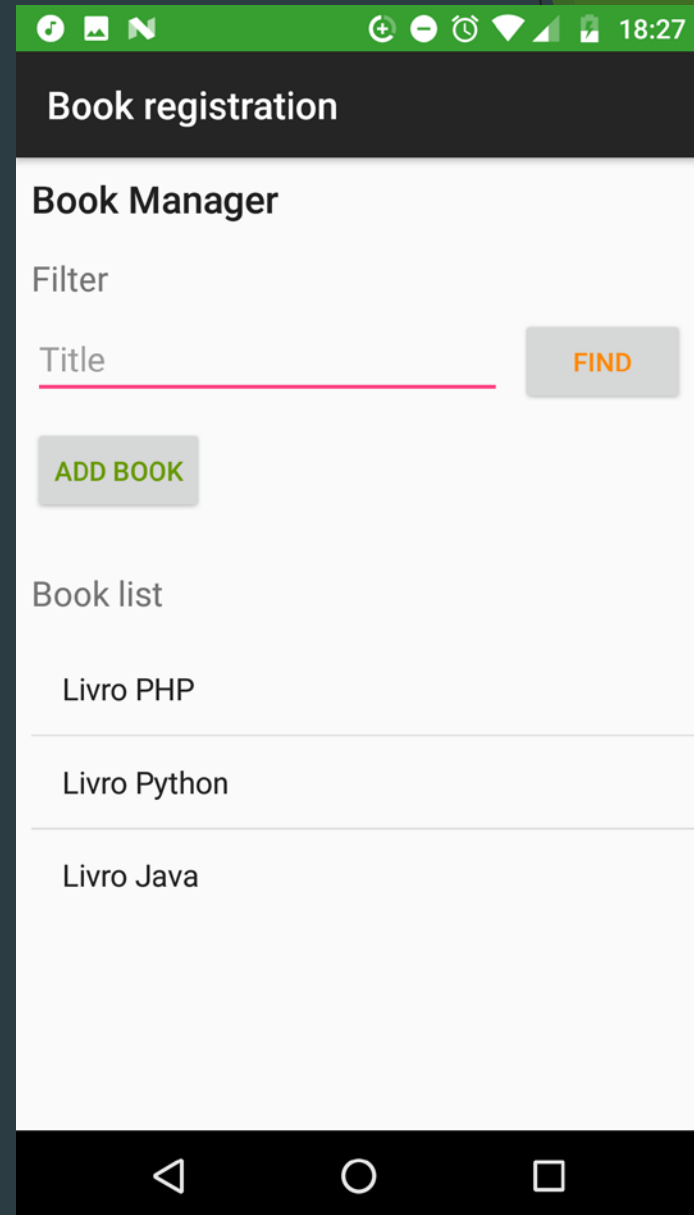
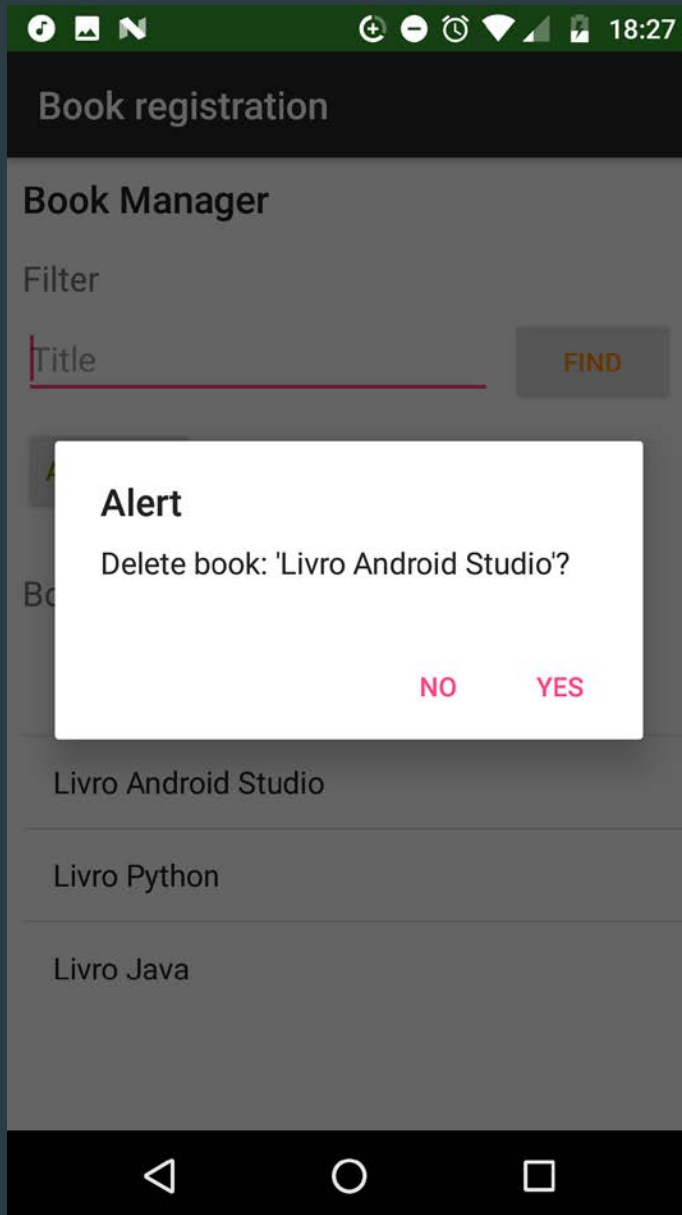
Descrição do livro....

SAVE **CLEAR**

Books



Books





Gratos!

Fim