



Universidade do Vale do Itajaí

Campus KobraSol

Programação Mobile

Avaliação M2

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ATIVIDADE 07 – AGENDA PESSOAL

Pacote com.univali.agendapessoal.entities:

```
package com.univali.agendapessoal.entities;

import java.io.Serializable;
import java.util.Date;

public class Event implements Serializable {

    private Integer id;
    private String name;
    private String description;
    private Date date;

    public Integer getId() {
        return id;
    }

    public void setId(Integer id) {
        this.id = id;
    }

    public String getName() {
        return name;
    }

    public void setName(String name) {
        this.name = name;
    }

    public String getDescription() {
        return description;
    }

    public void setDescription(String description) {
        this.description = description;
    }

    public Date getDate() {
        return date;
    }

    public void setDate(Date date) {
        this.date = date;
    }

    public Event(String name, String description, Date date) {
        this.name = name;
        this.description = description;
        this.date = date;
    }

    public Event(Integer id, String name, String description, Date date) {
        this.id = id;
        this.name = name;
        this.description = description;
    }
}
```

```

        this.date = date;
    }
}

```

```

package com.univali.agendapessoal.entities;

import android.app.Activity;

import com.univali.agendapessoal.persistence.DAOEvent;

import java.io.Serializable;
import java.util.ArrayList;
import java.util.Date;

public class EventList implements Serializable {

    ArrayList<Event> events;

    public EventList(Activity activity) {
        events = new ArrayList<>();
        attList(activity);
    }

    private void attList(Activity activity) {
        this.events = DAOEvent.findAllEvents(activity);

        int n = events.size();
        Event temp = null;
        for (int i = 0; i < n; i++) {
            for (int j = 1; j < (n - i); j++) {
                if (events.get(j -
1).getDate().compareTo(events.get(j).getDate()) > 0) {
                    //swap elements
                    temp = events.get(j - 1);
                    events.set(j - 1, events.get(j));
                    events.set(j, temp);
                }
            }
        }
    }

    public void cargaInicial(Activity activity) {
        attList(activity);
        if (events.size() < 1) {
            DAOEvent.insert(activity, new Event("Aula-1", "Aula na UNIVALI",
new Date()));
            DAOEvent.insert(activity, new Event("Aula-2", "Aula na UFSC", new
Date()));
            DAOEvent.insert(activity, new Event("Aula-3", "Aula na UNISUL",
new Date()));
            DAOEvent.insert(activity, new Event("Aula-4", "Aula na UDESC",
new Date()));
            attList(activity);
        }
    }

    public ArrayList<Event> getEvents() {
        return events;
    }
}

```

```

    }

    public void removeEvent(Activity activity, Event event) {
        DAOEvent.delete(activity, event);
        attList(activity);
    }

    public void insertEvent(Activity activity, Event event) {
        DAOEvent.insert(activity, event);
        attList(activity);
    }
}

```

Pacote com.univali.agendapessoal.persistence:

```

package com.univali.agendapessoal.persistence;

import android.app.Activity;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;

import com.univali.agendapessoal.entities.Event;

import java.util.ArrayList;
import java.util.Date;

public class DAOEvent {

    public static ArrayList<Event> findAllEvents(Activity activity) {
        ArrayList<Event> events = new ArrayList<>();
        SQLiteDatabase sqLiteDatabase = DAOSQLite.getDBInstance(activity);
        Cursor cursor = sqLiteDatabase.rawQuery("SELECT * FROM event ",
null);
        while(cursor.moveToNext()) {
            Event event = new Event(
                cursor.getInt(0),
                cursor.getString(1),
                cursor.getString(2),
                new Date(cursor.getString(3)) );
            events.add(event);
        }
        return events;
    }

    public static void insert(Activity activity, Event event) {
        DAOSQLite.getDBInstance(activity).execSQL("INSERT INTO event (name,
description, date)" +
            " values(" + "\"" + event.getName() + "\""
                + ", " + "\"" + event.getDescription() + "\""
                + ", " + "\"" + event.getDate() + "\"" + ") ");
    }

    public static void update(Activity activity, Event event) {
        DAOSQLite.getDBInstance(activity).execSQL("UPDATE event " +
            " SET " +
            " name = " + "\"" + event.getName() + "\"" + ", " +
            " description = " + "\"" + event.getDescription() + "\"" + ",

```

```

" +
        " date = " + "\"" + event.getDate().toString() + "\"" +
        " WHERE id = " + "\"" + event.getId().toString() + "\"" );
    }

    public static void delete(Activity activity, Event event) {
        DAOSQLite.getInstance(activity).execSQL("DELETE FROM " +
        " event WHERE id = " + "\"" + event.getId().toString() +
        "\"");
    }
}

```

```

package com.univali.agendapessoal.persistence;

import android.app.Activity;
import android.content.Context;
import android.database.sqlite.SQLiteDatabase;
import android.database.sqlite.SQLiteOpenHelper;

import androidx.annotation.Nullable;

public class DAOSQLite extends SQLiteOpenHelper {

    private static final String dbname="schedule";

    public DAOSQLite(@Nullable Context context, @Nullable String name,
    @Nullable SQLiteDatabase.CursorFactory factory, int version){
        super(context, name, factory, version);
    }

    @Override
    public void onCreate(SQLiteDatabase db) {
        System.out.println("TA CRIANDO");
        db.execSQL("CREATE TABLE event (id integer primary key autoincrement,
        name varchar(100), description varchar(300), date varchar(100) )");
    }

    @Override
    public void onUpgrade(SQLiteDatabase db, int oldVersion, int newVersion)
    {

    }

    public static SQLiteDatabase getInstance(Activity activity){
        DAOSQLite dao = new DAOSQLite(activity.getBaseContext(),
        DAOSQLite.dbname , null, 1);
        SQLiteDatabase sqLiteDatabase = dao.getWritableDatabase();
        return sqLiteDatabase;
    }
}

```

Pacote com.univali.agendapessoal:

```

package com.univali.agendapessoal;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;

```

```

import android.os.Bundle;
import android.util.EventLogTags;
import android.view.Menu;
import android.view.MenuInflater;
import android.view.MenuItem;
import android.view.View;
import android.view.ViewGroup;
import android.widget.Button;
import android.widget.LinearLayout;
import android.widget.TextView;

import com.univali.agendapessoal.entities.Event;
import com.univali.agendapessoal.entities.EventList;

public class MainActivity extends AppCompatActivity {

    private EventList eventList;
    private LinearLayout eventListView;

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

        setupViews();
    }

    private void setupViews() {
        this.eventList = new EventList(this);
        this.eventList.cargaInicial(this);
        eventListView = findViewById(R.id.eventList);
        setupEventListView();
    }

    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
        MenuInflater menuInflater = getMenuInflater();
        menuInflater.inflate(R.menu.main_menu, menu);
        return true;
    }

    @Override
    public boolean onOptionsItemSelected(MenuItem item) {
        switch (item.getItemId()) {
            case R.id.addEvent:
                Intent intent = new Intent(getBaseContext(), addEvent.class);
                intent.putExtra("eventList", eventList);
                startActivity(intent);
                break;
            case R.id.clearList:
                for (Event event : eventList.getEvents()) {
                    removeEvent(event);
                }
                break;
        }
        return super.onOptionsItemSelected(item);
    }

    public void setupEventListView() {

```

```

        eventListView.removeAllViews();
        for (Event event: eventList.getEvents()) {
            eventListView.addView(setupEventView(event));
        }
    }

    public LinearLayout setupEventView(Event event) {
        LinearLayout layout = new LinearLayout(this);
        layout.setLayoutParams(new
LinearLayout.LayoutParams(ViewGroup.LayoutParams.MATCH_PARENT,
ViewGroup.LayoutParams.WRAP_CONTENT));
        layout.setOrientation(LinearLayout.HORIZONTAL);

        LinearLayout.LayoutParams lp = new
LinearLayout.LayoutParams(ViewGroup.LayoutParams.WRAP_CONTENT,
ViewGroup.LayoutParams.WRAP_CONTENT);

        layout.addView(setupEventTextView(event));

        final Button removeButton = new Button(this);
        removeButton.setText("Remover");
        removeButton.setLayoutParams(lp);
        removeButton.setTag(event);
        removeButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Event event = (Event)v.getTag();
                removeEvent(event);
            }
        });
        layout.addView(removeButton);

        return layout;
    }

    public LinearLayout setupEventTextView(Event event) {
        LinearLayout layout = new LinearLayout(this);
        layout.setLayoutParams(new
LinearLayout.LayoutParams(ViewGroup.LayoutParams.WRAP_CONTENT,
ViewGroup.LayoutParams.MATCH_PARENT));
        layout.setOrientation(LinearLayout.VERTICAL);

        LinearLayout.LayoutParams lp = new
LinearLayout.LayoutParams(ViewGroup.LayoutParams.WRAP_CONTENT,
ViewGroup.LayoutParams.WRAP_CONTENT);

        TextView tv = new TextView(this);
        tv.setWidth(600);
        tv.setText(event.getName());
        tv.setLayoutParams(lp);
        layout.addView(tv);

        TextView tv1 = new TextView(this);
        tv1.setWidth(600);
        tv1.setText(event.getDescription());
        tv1.setLayoutParams(lp);
        layout.addView(tv1);

        return layout;
    }

```

```

    }

    public void removeEvent(Event event) {
        this.eventList.removeEvent(this, event);
        setupEventListView();
    }
}

```

```

package com.univali.agendapessoal;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.view.KeyEvent;
import android.view.View;
import android.widget.Button;
import android.widget.CalendarView;
import android.widget.TextView;

import com.google.android.material.textfield.TextInputEditText;
import com.univali.agendapessoal.entities.Event;
import com.univali.agendapessoal.entities.EventList;

import java.util.Date;

public class addEvent extends AppCompatActivity {

    private TextInputEditText inputName;
    private TextInputEditText inputDescription;
    private CalendarView dateInput;
    private EventList eventList;
    private Button addButton;

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

        setupViews();
        setupListeners();
    }

    public void setupViews() {
        Intent intent = getIntent();
        this.eventList = (EventList)intent.getSerializableExtra("eventList");
        this.inputName = findViewById(R.id.nameInput);
        this.inputDescription = findViewById(R.id.descriptionInput);
        this.dateInput = findViewById(R.id.dateInput);
        this.addButton = findViewById(R.id.addButton);
        this.addButton.setEnabled(false);

        getSupportActionBar().setDisplayHomeAsUpEnabled(true);
    }

    private void setupListeners() {
        addButton.setOnClickListener(new View.OnClickListener() {

```



```

        @Override
        public void onClick(View v) {
            String eventName = inputName.getText().toString();
            String eventDescription =
inputDescription.getText().toString();
            Date eventDate = new Date(dateInput.getDate());
            Event event = new Event(eventName, eventDescription,
eventDate);

            eventList.insertEvent(addEvent.this, event);
            Intent intent = new Intent(getBaseContext(),
MainActivity.class);
            startActivity(intent);
        }
    });

    inputName.setOnKeyListener(new View.OnKeyListener() {
        @Override
        public boolean onKey(View v, int keyCode, KeyEvent event) {
            if (inputName.getText() == null ||
inputName.getText().toString().equals(""))
                || inputDescription.getText() == null ||
inputDescription.getText().toString().equals("")) {
                addButton.setEnabled(false);
            } else {
                addButton.setEnabled(true);
            }
            return false;
        }
    });

    inputDescription.setOnKeyListener(new View.OnKeyListener() {
        @Override
        public boolean onKey(View v, int keyCode, KeyEvent event) {
            if (inputName.getText() == null ||
inputName.getText().toString().equals(""))
                || inputDescription.getText() == null ||
inputDescription.getText().toString().equals("")) {
                addButton.setEnabled(false);
            } else {
                addButton.setEnabled(true);
            }
            return false;
        }
    });
}
}
}

```

layout do pacote com.univali.agendapessoal:

```

<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:tools="http://schemas.android.com/tools"
android:layout_width="match_parent"
android:layout_height="match_parent"
tools:context=".MainActivity">

```

```

<TextView
    android:id="@+id/title"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Meus eventos"
    android:textSize="24sp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintLeft_toLeftOf="parent"
    app:layout_constraintRight_toRightOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.084" />

<ScrollView
    android:id="@+id/scrollView2"
    android:layout_width="409dp"
    android:layout_height="450dp"
    android:layout_marginTop="100dp"
    android:layout_marginBottom="30dp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/title">

    <LinearLayout
        android:id="@+id/eventList"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="vertical" />

</ScrollView>

</androidx.constraintlayout.widget.ConstraintLayout>

```

```

<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".addEvent">

    <TextView
        android:id="@+id/title"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="50dp"
        android:text="Adicionar Evento"
        android:textSize="30sp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <com.google.android.material.textfield.TextInputLayout
        android:id="@+id/nameInputLayout"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_marginStart="1dp"
        android:layout_marginLeft="1dp"

```

```

        android:layout_marginTop="116dp"
        android:layout_marginEnd="1dp"
        android:layout_marginRight="1dp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.0"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent">

        <com.google.android.material.textfield.TextInputEditText
            android:id="@+id/nameInput"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:hint="Nome" />
    </com.google.android.material.textfield.TextInputLayout>

    <com.google.android.material.textfield.TextInputLayout
        android:id="@+id/inputDescriptionLayout"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_marginStart="1dp"
        android:layout_marginLeft="1dp"
        android:layout_marginTop="13dp"
        android:layout_marginEnd="1dp"
        android:layout_marginRight="1dp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/nameInputLayout">

        <com.google.android.material.textfield.TextInputEditText
            android:id="@+id/descriptionInput"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:hint="Descrição" />
    </com.google.android.material.textfield.TextInputLayout>

    <CalendarView
        android:id="@+id/dateInput"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="30dp"
        android:layout_marginLeft="30dp"
        android:layout_marginTop="19dp"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/inputDescriptionLayout" />

    <Button
        android:id="@+id/addButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginBottom="61dp"
        android:text="Adicionar"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

ATIVIDADE 10 – XML

Pacote http:

```
package http;

import android.util.Xml;

import com.google.gson.Gson;
import com.google.gson.reflect.TypeToken;
import com.univali.entities.BreakFestMenu;
import com.univali.entities.Food;

import org.w3c.dom.Document;
import org.w3c.dom.Node;
import org.w3c.dom.NodeList;
import org.xml.sax.SAXException;

import java.io.IOException;
import java.io.InputStream;
import java.lang.annotation.Documented;
import java.lang.reflect.Type;
import java.net.HttpURLConnection;
import java.net.MalformedURLException;
import java.net.URL;
import java.util.ArrayList;
import java.util.List;
import java.util.Scanner;

import javax.xml.bind.JAXBContext;
import javax.xml.bind.JAXBException;
import javax.xml.bind.Unmarshaller;
import javax.xml.parsers.DocumentBuilder;
import javax.xml.parsers.DocumentBuilderFactory;
import javax.xml.parsers.ParserConfigurationException;

public class BreakFestMenuAPI {

    private final String resourceURI =
"https://www.w3schools.com/xml/simple.xml";

    public List<Food> getAllPosts() {
        try {
            Document document = null;
            String httpParameters = ""; // ?id=0
            String formattedURL = resourceURI + httpParameters;
            URL url = new URL(formattedURL);
            InputStream is = url.openStream();
            DocumentBuilderFactory dbFactory =
DocumentBuilderFactory.newInstance();
            DocumentBuilder dBuilder = null;
            try {
                dBuilder = dbFactory.newDocumentBuilder();
                document = dBuilder.parse(is);
            } catch (ParserConfigurationException | IOException |
SAXException e) {
                e.printStackTrace();
            }
        }
    }
}
```

```

        return parseFoods(document);
    } catch (IOException ex) {
        return null;
    }
}

private List<Food> parseFoods(Document document) {
    List<Food> foods = new ArrayList<Food>();
    NodeList foodElements = document.getElementsByTagName("food");
    for (int i=0; i<foodElements.getLength(); i++) {
        Food food = new Food(
            Long.valueOf(i),
            foodElements.item(i).getChildNodes().item(1).getTextContent(),
            foodElements.item(i).getChildNodes().item(3).getTextContent(),
            foodElements.item(i).getChildNodes().item(5).getTextContent(),
            Integer.parseInt(foodElements.item(i).getChildNodes().item(7).getTextContent(
            )));
        foods.add(food);
    }
    return foods;
}
}

```

pacote com.univali.entities:

```

package com.univali.entities;

public class Food {

    private Long id;
    private String name;
    private String price;
    private String description;
    private Integer calories;

    private Boolean selected;

    public Food(Long id, String name, String price, String description,
Integer calories) {
        this.id = id;
        this.name = name;
        this.price = price;
        this.description = description;
        this.calories = calories;
        this.selected = false;
    }

    public String getName() {
        return name;
    }
}

```

```

    public void setName(String name) {
        this.name = name;
    }

    public String getPrice() {
        return price;
    }

    public void setPrice(String price) {
        this.price = price;
    }

    public String getDescription() {
        return description;
    }

    public void setDescription(String description) {
        this.description = description;
    }

    public Integer getCalories() {
        return calories;
    }

    public void setCalories(Integer calories) {
        this.calories = calories;
    }

    public Boolean getSelected() {
        return selected;
    }

    public void setSelected(Boolean selected) {
        this.selected = selected;
    }

    public Long getId() {
        return id;
    }

    public void setId(Long id) {
        this.id = id;
    }
}

```

pacote com.univali.xml

```

package com.univali.xml;

import androidx.appcompat.app.AlertDialog;
import androidx.appcompat.app.AppCompatActivity;

import android.content.DialogInterface;
import android.content.Intent;
import android.graphics.Color;
import android.graphics.drawable.GradientDrawable;
import android.os.Bundle;

```

```

import android.view.View;
import android.view.ViewGroup;
import android.widget.Button;
import android.widget.LinearLayout;
import android.widget.TextView;

import com.univali.entities.BreakFestMenu;
import com.univali.entities.Food;

import org.w3c.dom.Text;

import java.util.ArrayList;
import java.util.List;

import javax.xml.bind.JAXBException;

import http.BreakFestMenuAPI;

public class MainActivity extends AppCompatActivity {

    public static List<Food> foods;
    private LinearLayout foodList;
    private Button calculateButton;

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

        setupViews();
        setupListeners();
    }

    private void setupViews() {
        this.foodList = findViewById(R.id.foodList);
        this.calculateButton = findViewById(R.id.calculateButton);

        Thread thread = new Thread(new Runnable() {
            @Override
            public void run() {
                MainActivity.foods = new BreakFestMenuAPI().getAllPosts();
            }
        });

        thread.start();
        while (thread.isAlive()) {}
        setupFoodListView(MainActivity.foods);
    }

    private void setupListeners() {
        calculateButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Double totalPrice = 0d;
                for (Food food : MainActivity.foods) {
                    if (food.getSelected()) {
                        totalPrice +=
Double.parseDouble(food.getPrice().replace("$", ""));
                    }
                }
            }
        });
    }
}

```

```

        }
        alertDialog("Preço Total: $" + totalPrice.toString(),
"CALCULADO" );
    }
    });
}

private void setupFoodListView(List<Food> foods) {
    foodList.removeAllViews();
    for (Food food : foods) {
        foodList.addView(setupFoodView(food));
    }
}

private LinearLayout setupFoodView(Food food) {
    LinearLayout layout = new LinearLayout(this);
    layout.setLayoutParams(new
LinearLayout.LayoutParams(ViewGroup.LayoutParams.MATCH_PARENT,
ViewGroup.LayoutParams.WRAP_CONTENT));
    layout.setOrientation(LinearLayout.VERTICAL);

    LinearLayout.LayoutParams lp = new
LinearLayout.LayoutParams(ViewGroup.LayoutParams.WRAP_CONTENT,
ViewGroup.LayoutParams.WRAP_CONTENT);

    TextView tv = new TextView(this);
    tv.setText(food.getName());
    tv.setLayoutParams(lp);
    tv.setAllCaps(true);
    layout.addView(tv);

    TextView tv1 = new TextView(this);
    tv1.setText(food.getDescription());
    tv1.setLayoutParams(lp);
    layout.addView(tv1);

    TextView tv2 = new TextView(this);
    tv2.setText("Price: " + food.getPrice());
    tv2.setLayoutParams(lp);
    layout.addView(tv2);

    TextView tv3 = new TextView(this);
    tv3.setText("Calories: " + food.getCalories() + "\n");
    tv3.setLayoutParams(lp);
    layout.addView(tv3);

    layout.setTag(food.getId());

    layout.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            Long foodId = (Long)v.getTag();
            if (MainActivity.foods.get(foodId.intValue()).getSelected())
            {
                v.setBackgroundColor(Color.parseColor("#ffffff"));
                System.out.println("FALSE");
            }
            MainActivity.foods.get(foodId.intValue()).setSelected(false);
        } else {

```



```

        v.setBackgroundColor(Color.parseColor("#00ff7f"));
        System.out.println("TRUE");
MainActivity.foods.get(foodId.intValue()).setSelected(true);
    }
}
});

GradientDrawable border = new GradientDrawable();
border.setColor(0xFFFFFFFF); //white background
border.setStroke(1, 0xFF000000); //black border with full opacity
layout.setBackground(border);
layout.setClickable(true);

return layout;
}

private void alertDialog(String message, String title) {
    AlertDialog.Builder dialog=new AlertDialog.Builder(this);
    dialog.setMessage(message);
    dialog.setTitle(title);
    AlertDialog alertDialog=dialog.create();
    alertDialog.show();
}
}

```

layout do pacote com.univali.xml:

```

<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:tools="http://schemas.android.com/tools"
android:layout_width="match_parent"
android:layout_height="match_parent"
tools:context=".MainActivity">

    <TextView
        android:id="@+id/title"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="55dp"
        android:layout_marginBottom="1dp"
        android:text="Menu"
        android:textSize="35dp"
        app:layout_constraintBottom_toTopOf="@+id/foodListScrollView"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <ScrollView
        android:id="@+id/foodListScrollView"
        android:layout_width="0dp"
        android:layout_height="0dp"
        android:layout_marginBottom="130dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"

```

```
        app:layout_constraintTop_toBottomOf="@+id/title">

        <LinearLayout
            android:id="@+id/foodList"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:orientation="vertical" />
    </ScrollView>

    <Button
        android:id="@+id/calculateButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="30dp"
        android:text="Calcular valor da compra"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/foodListScrollView" />

</androidx.constraintlayout.widget.ConstraintLayout>
```