

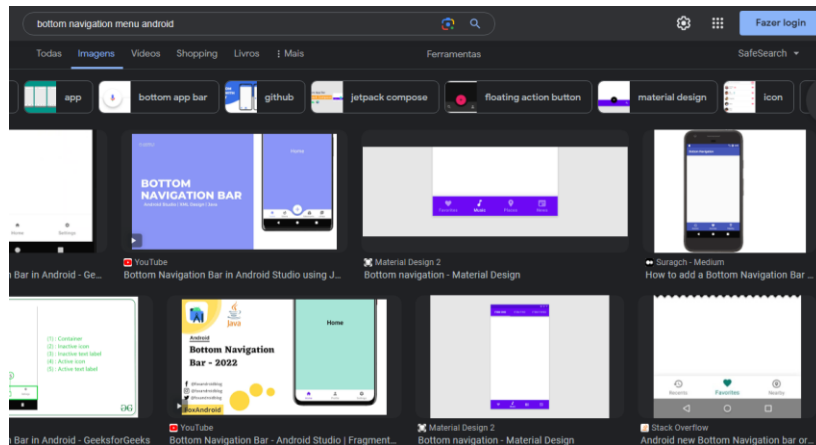
# Menu com navigation (Bottom)

Prof. Diogo Soares

# Menus

- Menus em formato de “Bottom Navigation Bar” são um dos mais populares menus dos aplicativos
  - Tipo de menu em barra que permite movimento primário entre destinos no app como acesso a uma home, listagem, configurações, etc..
  - É tão popular que possui muito conteúdo e até componentes próprias no Android

- No google não faltam exemplos:



# Menu



▣ Para isso, iremos iniciar com os seguintes passos:

- ▣ Menu
  - *Modelo do menu junto com os ícones*
- ▣ Navigation
  - *Componente do menu inferior*
- ▣ Activity
  - *Será modificada para considerar os eventos de clique e envio para outras telas*

# Criando Menu

- Lembre-se da aula em que criamos um menu, e crie um menu novamente!
- New -> Android Resource File :



The screenshot shows the 'New Resource File' dialog box in Android Studio. The dialog has a title bar with an Android icon and a close button. It contains several input fields and a list of qualifiers.

File name: navigation

Resource type: Menu

Root element: menu

Source set: main src/main/res

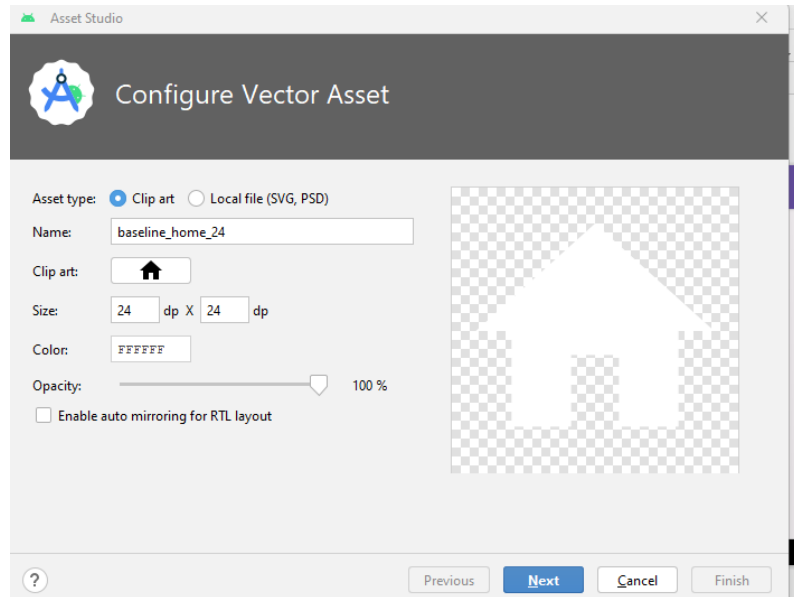
Directory name: menu

Available qualifiers:

Chosen qualifiers:

# Criando Menu

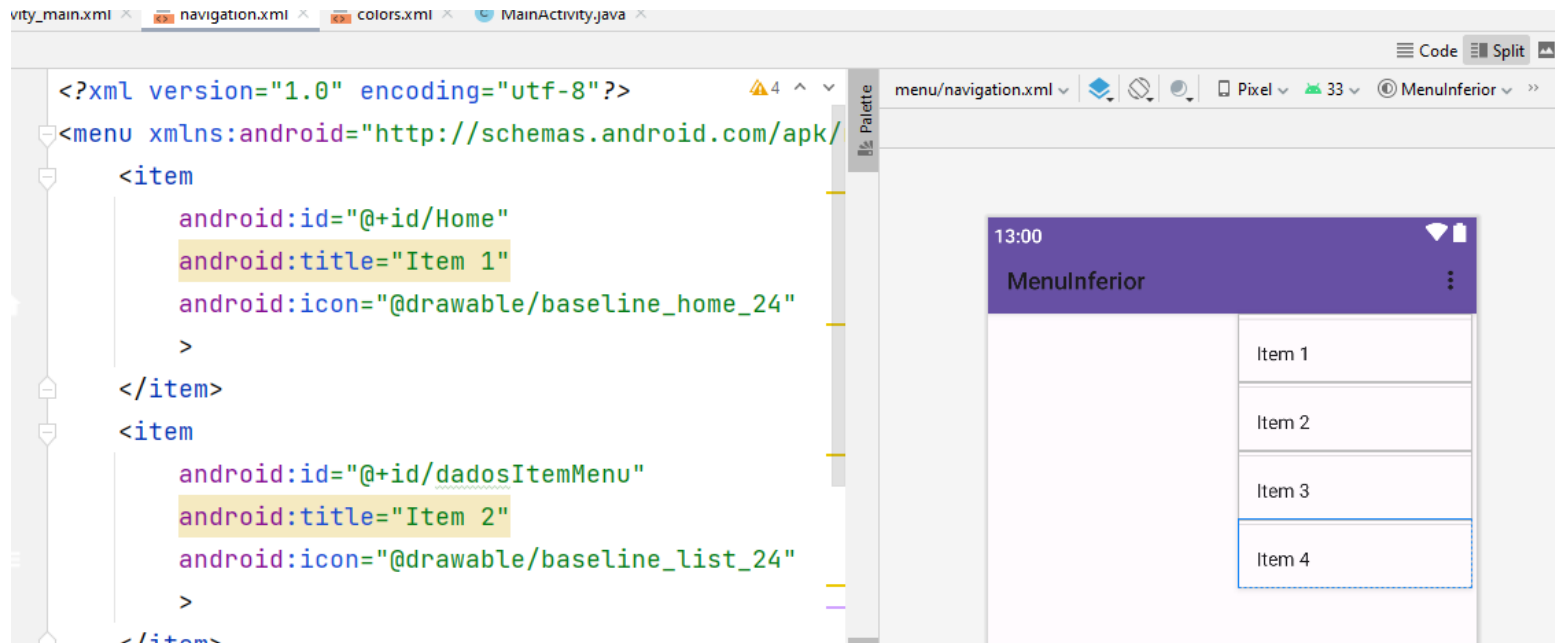
- Se necessário, adicione ícones (imagens ou vector assets)
  - Vector assets: Android já vem com diversos assets para auxiliar
  - New->Vector Asset (se clicar em Clip art dá pra buscar vários!)



# Criando Menu

■ Agora volte no menu e adicione os itens

□ Android:params: Adicione parâmetros como icons e title. Ex.:



# Activity (XML)



- Agora vá na activity principal (pode ser a tela de hello world!) e adicione alguns componentes e ao final adicione um componente de navigation
  - `BottomNavigationView`: Componente da android para gerar barra de navegação na parte inferior do app. É uma implementação em formato da Material Design da google. Documentação oficial: [BottomNavigationView | Android Developers](#).
  - É só uma das dezenas de componentes e formas de se fazer barras. Documentação atual de barras: [Bottom app bar – Material Design 3](#)

# Activity Principal

■ Código-fonte (parcial) da activity:

```
<com.google.android.material.bottomnavigation.BottomNavigationView
    android:id="@+id/navegacaoDash"
    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:background="@color/purple_700"
    app:itemIconTint="@color/white"
    app:itemRippleColor="@color/white"
    app:itemTextColor="@color/white"
    app:labelVisibilityMode="labeled"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintLeft_toLeftOf="parent"
    app:layout_constraintRight_toRightOf="parent"
    app:menu="@menu/navigation"
    tools:ignore="MissingClass" />
```



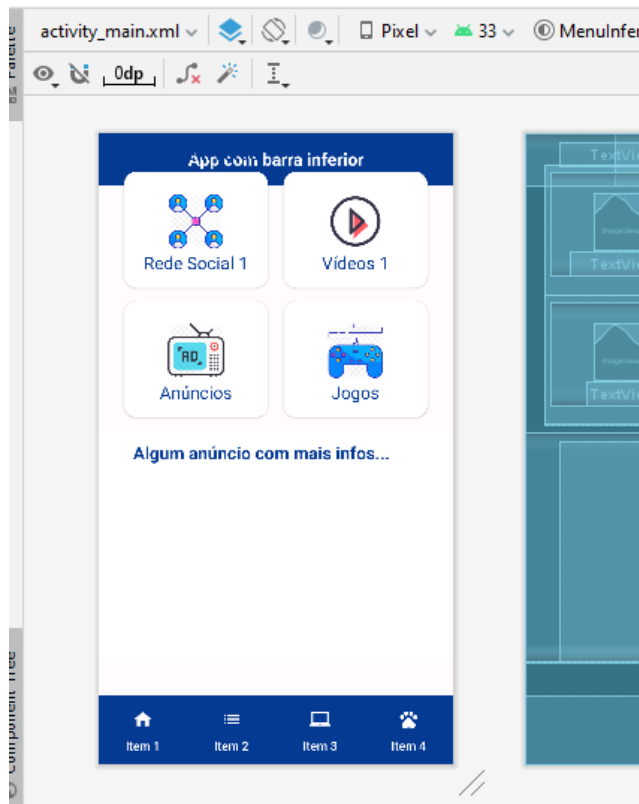
# Activity (XML)

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- Perceba que alguns detalhes foram adicionados
  - `menu`: id do menu construído (res->menu)
  - `background`: cor de fundo para o background (res->values->colors.xml) já que os exemplos de assets criados tinham fundo branco
  - `itemIconTint`: Para padronizar a cor dos ícones para branco, incluído o item do menu selecionado (por padrão é o primeiro)
  - E por aí vai 😊

# Activity (XML)

■ Exemplo do preview:



# Activity (XML)

## XML Completo

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:app="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=".MainActivity">
```

```

    <androidx.appcompat.widget.Toolbar
        android:id="@+id/toolbarDashboard"
        android:layout_width="match_parent"
        android:layout_height="60dp"
        android:background="@color/purple_700"
        android:gravity="center"
        android:padding="0dp"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:titleTextColor="@color/white">
```

```

        <TextView
            android:layout_width="wrap_content"
            android:layout_height="match_parent"
            android:layout_gravity="center"
            android:gravity="center"
            android:text="App com barra inferior"
```

```
            android:textColor="@color/white"
            android:textSize="20sp"
            android:textStyle="bold"
            tools:layout_editor_absoluteX="16dp"
            tools:layout_editor_absoluteY="12dp">
```

```
        </TextView>
    </androidx.appcompat.widget.Toolbar>
```

```

    <ScrollView
        android:layout_width="match_parent"
        android:paddingTop="60dp"
        android:layout_height="match_parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/toolbarDashboard"
        tools:ignore="UselessLeaf">
```

```

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

```

            <TextView
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:layout_marginStart="40dp"
                android:layout_marginTop="10dp"
                android:layout_marginEnd="20dp"
                android:text="Dados em cards"
                android:textColor="@color/purple_700"
                android:textSize="20sp"
                android:textStyle="bold"></TextView>
```

```

            <GridLayout
                android:id="@+id/gradeCards"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:layout_marginStart="23dp"
                android:layout_marginEnd="10dp"
                android:alignmentMode="alignMargins"
                android:columnCount="2"
                android:columnOrderPreserved="false"
                android:rowCount="2">
```

# Activity (XML)

## XML Complete

```
<androidx.cardview.widget.CardView
    android:id="@+id/carta01"
    android:layout_width="180dp"
    android:layout_height="150dp"
    android:layout_rowWeight="0"
    android:layout_columnWeight="0"
    android:layout_marginEnd="5dp"
    app:cardCornerRadius="15dp"
    app:cardElevation="2dp"
    app:cardUseCompatPadding="true">
```

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

```
<ImageView
    android:layout_width="65dp"
    android:layout_height="65dp"
    android:layout_gravity="center"
    android:layout_marginTop="25dp"
    android:src="@drawable/img"></ImageView>
```

```
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_gravity="center"
    android:layout_marginTop="2dp"
    android:text="Rede Social 1"
    android:textColor="@color/purple_700"
    android:textSize="20sp"></TextView>
```

```
</LinearLayout>
</androidx.cardview.widget.CardView>
```

```
<androidx.cardview.widget.CardView
    android:id="@+id/carta02"
    android:layout_width="180dp"
    android:layout_height="150dp"
    android:layout_rowWeight="1"
    android:layout_columnWeight="0"
    app:cardCornerRadius="15dp"
    app:cardElevation="2dp"
    app:cardUseCompatPadding="true">
```

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

    <ImageView
        android:layout_width="65dp"
        android:layout_height="65dp"
        android:layout_gravity="center"
        android:layout_marginTop="25dp"
        android:src="@drawable/img_1"></ImageView>
```

```
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_gravity="center"
    android:layout_marginTop="2dp"
    android:text="Vídeos 1"
    android:textColor="@color/purple_700"
    android:textSize="20sp"></TextView>

</LinearLayout>
</androidx.cardview.widget.CardView>
```

# Activity (XML)

## XML Complete

```
<androidx.cardview.widget.CardView
    android:id="@+id/carta03"
    android:layout_width="180dp"
    android:layout_height="150dp"
    app:cardCornerRadius="15dp"
    app:cardElevation="2dp"
    app:cardUseCompatPadding="true">
```

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

```
<ImageView
    android:layout_width="65dp"
    android:layout_height="65dp"
    android:layout_gravity="center"
    android:layout_marginTop="25dp"
    android:src="@drawable/img_2"></In
```

```
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_gravity="center"
    android:layout_marginTop="2dp"
    android:text="Anúncios"
    android:textColor="@color/purple_700"
    android:textSize="20sp"></TextView>
```

```
</LinearLayout>
```

```
</androidx.cardview.widget.CardView>
```

```
<androidx.cardview.widget.CardView
    android:id="@+id/carta04"
    android:layout_width="180dp"
    android:layout_height="150dp"
    app:cardCornerRadius="15dp"
    app:cardElevation="2dp"
    app:cardUseCompatPadding="true">
```

```
<LinearLayout
```

```
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="vertical">
```

```
<ImageView
```

```
    android:layout_width="65dp"
    android:layout_height="65dp"
    android:layout_gravity="center"
    android:layout_marginTop="25dp"
    android:src="@drawable/img_3"></ImageView>
```

```
<TextView
```

```
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_gravity="center"
    android:layout_marginTop="2dp"
    android:text="Jogos"
    android:textColor="@color/purple_700"
    android:textSize="20sp"></TextView>
```

```
</LinearLayout>
```

```
</androidx.cardview.widget.CardView>
```

```
</GridLayout>
```

# Activity (XML)

## XML Complete

```
<androidx.cardview.widget.CardView
    android:layout_width="match_parent"
    android:layout_height="265dp"
    android:layout_marginStart="0dp"
    android:layout_marginTop="10dp"
    app:cardElevation="2dp">

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:orientation="vertical">

        <TextView
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:layout_marginStart="40dp"
            android:layout_marginTop="10dp"
            android:layout_marginEnd="20dp"
            android:text="Algum anúncio com mais infos..."
            android:textColor="@color/purple_700"
            android:textSize="20sp"
            android:textStyle="bold"></TextView>

        </LinearLayout>
    </androidx.cardview.widget.CardView>
</LinearLayout>
</ScrollView>
```

```
<com.google.android.material.bottomnavigation.BottomNavigationView
    android:id="@+id/navegacaoDash"
    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:background="@color/purple_700"
    app:itemIconTint="@color/white"
    app:itemRippleColor="@color/white"
    app:itemTextColor="@color/white"
    app:labelVisibilityMode="labeled"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintLeft_toLeftOf="parent"
    app:layout_constraintRight_toRightOf="parent"
    app:menu="@menu/navigation"
    tools:ignore="MissingClass" />

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

# Activity (Java)

- Na classe java da activity, adicione uma componente de navigation

```
private BottomNavigationView navigationView;
```

- Na função onCreate adicione o listener para quando o item for clicado
  - Código no próximo slide

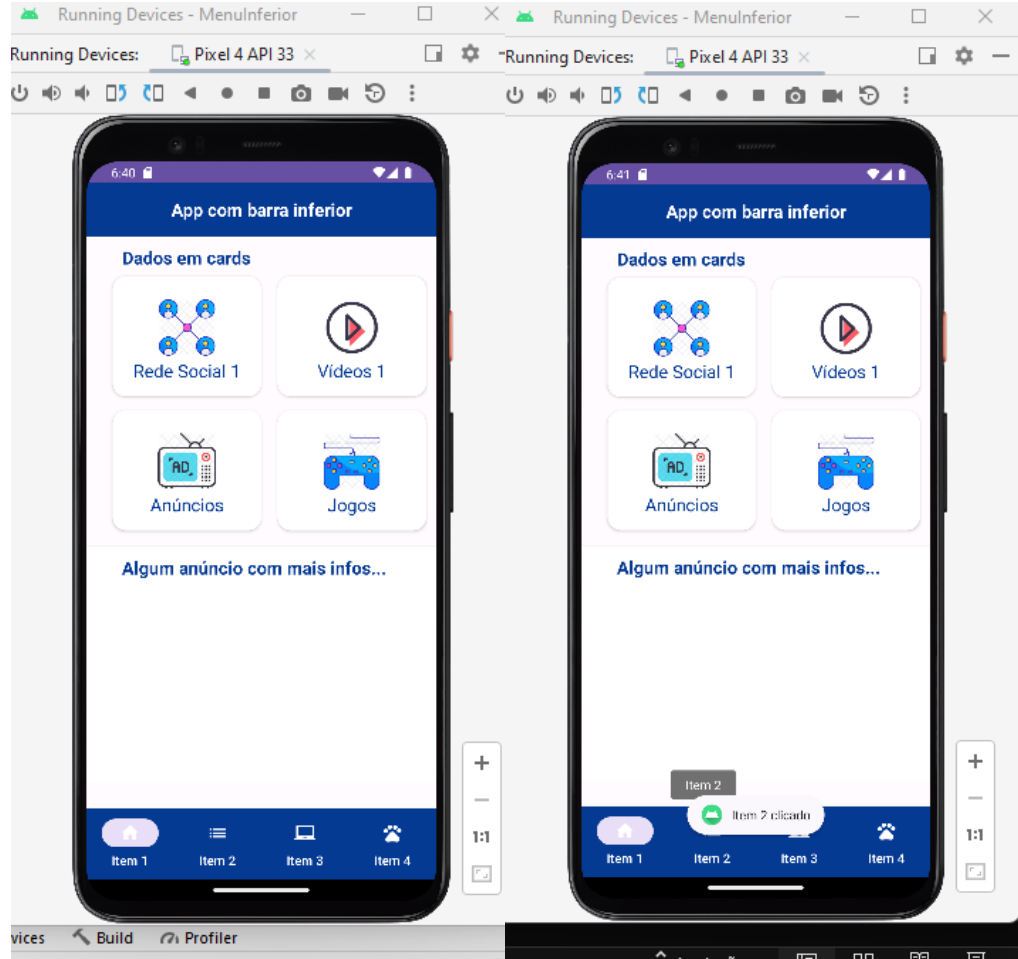
# Activity (Java)

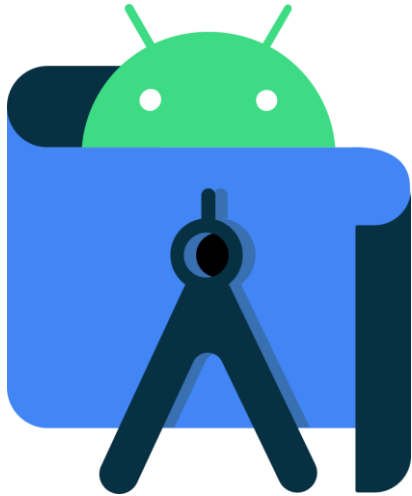
```
navigationView = (BottomNavigationView) findViewById(R.id.navegacaoDash);
navigationView.setOnItemClickListener
(
    item ->
    {
        if(item.getItemId() == R.id.Home){
            startActivity(new Intent(this, MainActivity.class));
            finish();
            return true; //auto loop :-p
        }else if(item.getItemId() == R.id.dadosItemMenu){
            Toast aux =
                Toast.makeText(this, "Item 2 clicado", Toast.LENGTH_SHORT);
            aux.show();
        }else if(item.getItemId() == R.id.pontosItemMenu){
            Toast aux =
                Toast.makeText(this, "Item 3 clicado", Toast.LENGTH_SHORT);
            aux.show();
        }else if(item.getItemId() == R.id.outraCoisaItemMenu){
            Toast aux =
                Toast.makeText(this, "Item 4 clicado", Toast.LENGTH_SHORT);
            aux.show();
        }
        return false;
    }
);
```



# Resultado

- 1ª Tela: resultado
- 2ª Tela: clicando no ícone do item 2





# Challenging

Prof. Diogo Soares

# Sunflower

- Tente adicionar uma bottom navigation bar no Sunflower
  - Link:  
[android/sunflower at compose\\_recyclerview \(github.com\)](https://github.com/android/sunflower/tree/master/compose_recyclerview)
  - Ex:

