FUNDAÇÃO INSTITUTO DE EDUCAÇÃO DE BARUERI

Instituto Técnico de Barueri “Brasílio Flores de Azevedo”

Tecnologias Emergentes

# Tutorial Android para Navegação de Janelas Tabuladas

versão 1.0

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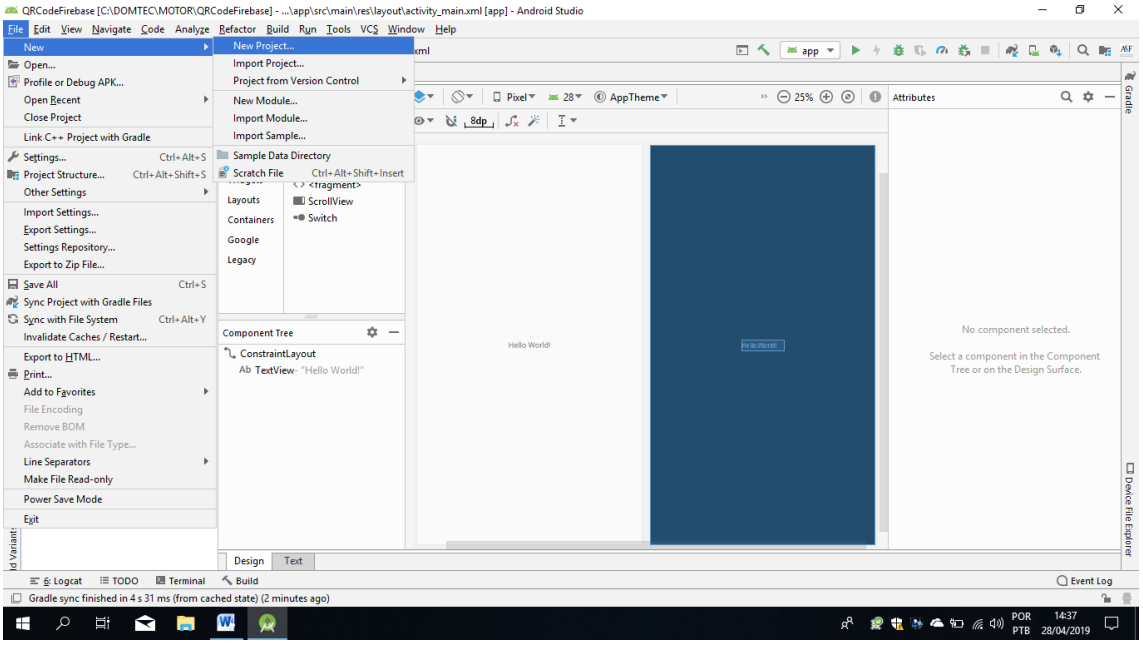
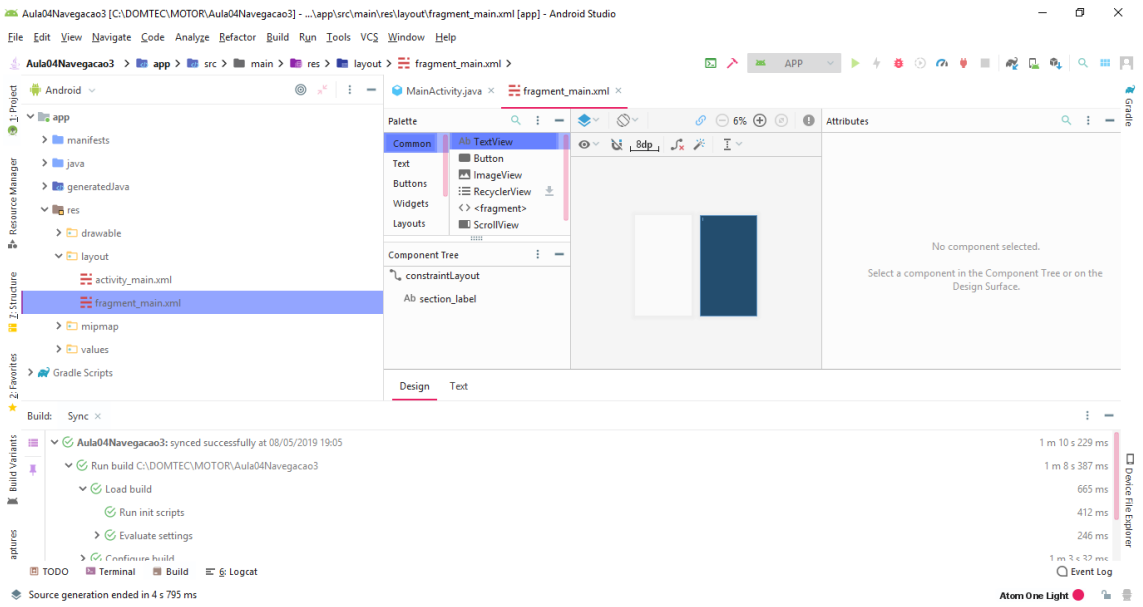
## AULA 04 – Tabbed Activity

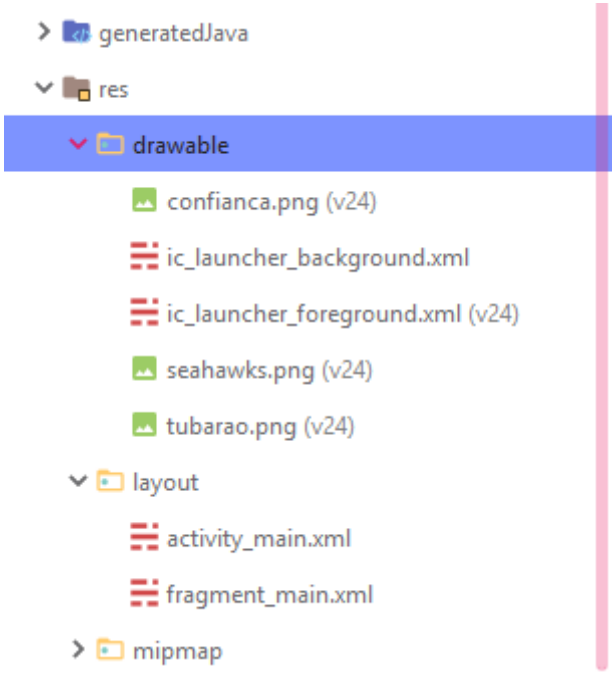
1. CRIAR PROJETO:
    a. FILE > NEW > NEW PROJECT...



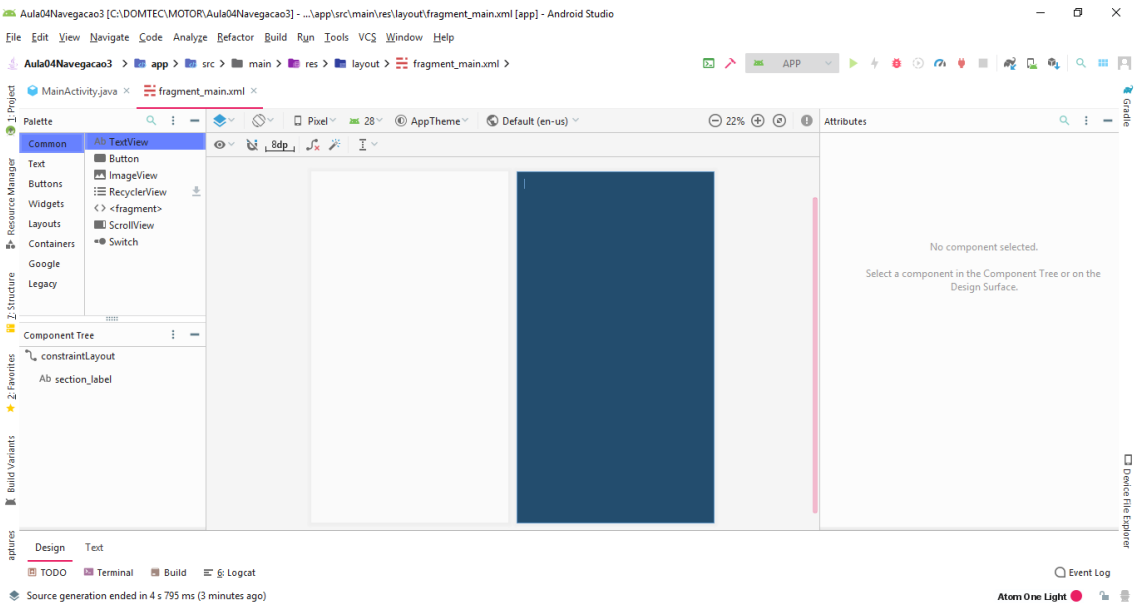

    a. Altere as opções da primeira janela e clique no Finish:
        i. Aplication Name: Aula04Navegacao3
        ii. Company Domain: aula04navegacao3.itb.com.br
        iii. Location: Z:\... (sua pasta na Z:)
    b. API 22
    c. ESCOLHA A ATIVIDADE DE EXEMPLO: Tabbed Activity
        iv. Não altere nada na última janela e clique em Finish
    b. Aguarde o carregamento do projeto:



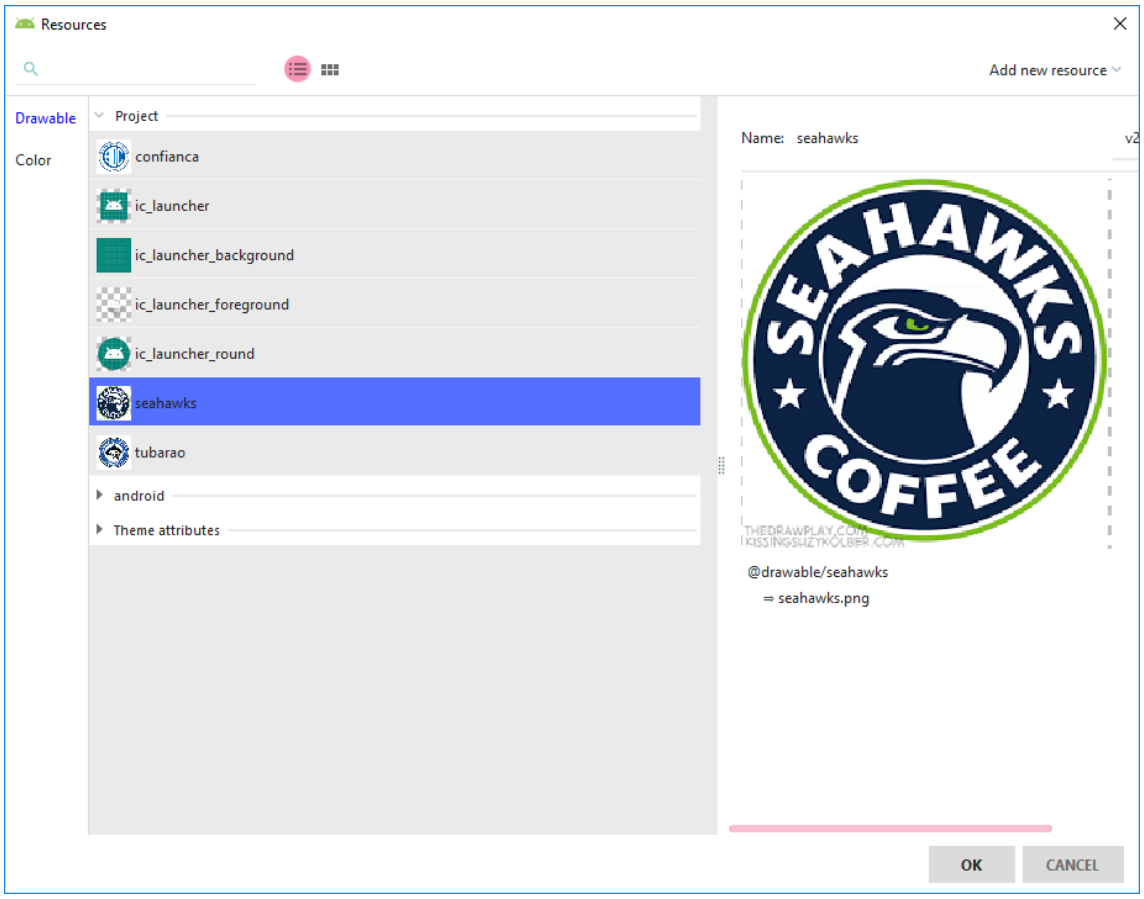
a. Adicione as três imagens que serão utilizadas no projeto, copie as mesmas na pasta drawable diretamente, em Android > app > res > drawable, as imagens estão na pasta dos Tutoriais:



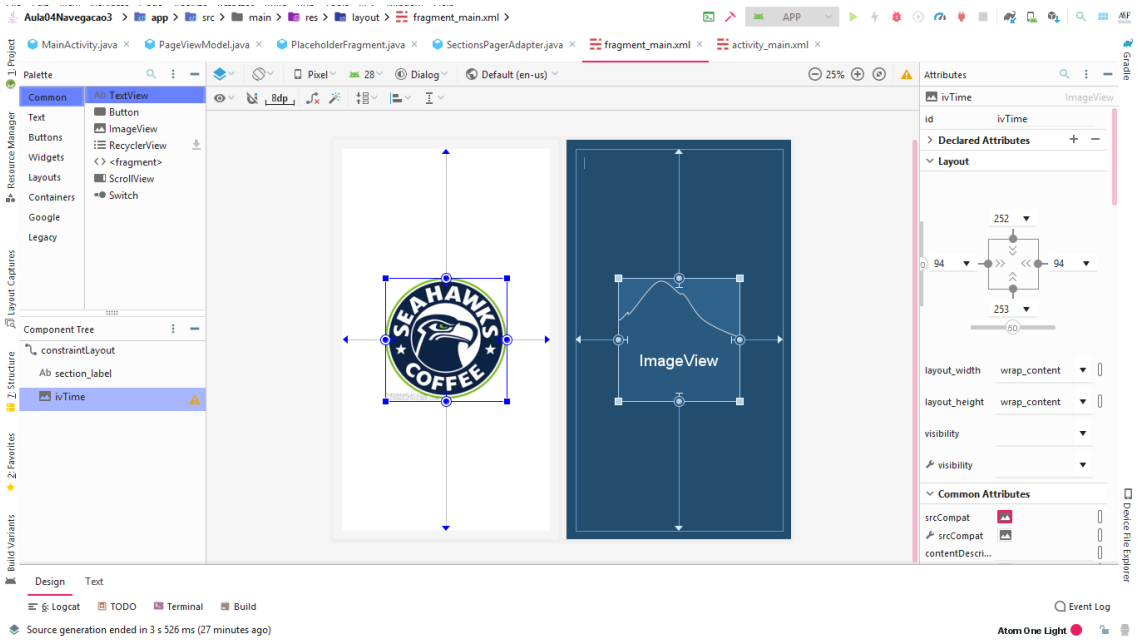

b. Abra a edição da tela fragment_main.xml
   i. Clique duas vezes em Android > app > res > layout > fragment_main.xml



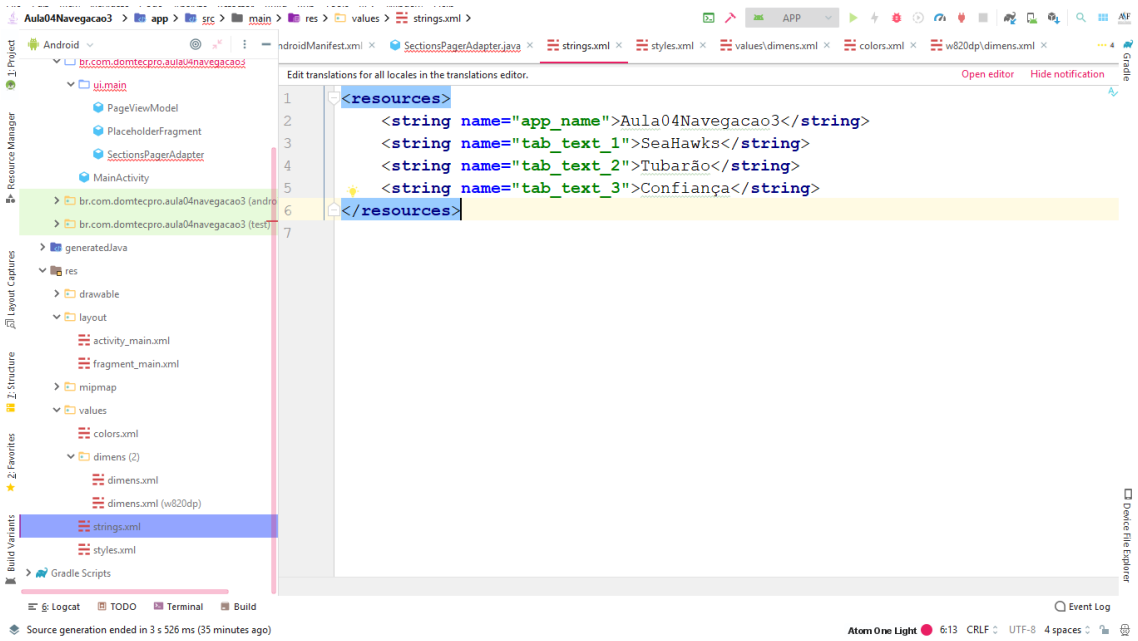

c. Clique no menu View > Entre Full Screen
   ii. Ajuste a tela para melhor visualização e edição da janela
d. Insira um objeto ImageView:
   iii. Escolha a imagem seahawks:




e. Ajuste a imagem ao centro da tela e altere os atributos:
   iv. id: ivTime
   v. Defina as margnes (ancoragem)
   vi. layout_width: wrap_content
   vii. layout_height: wrap_content



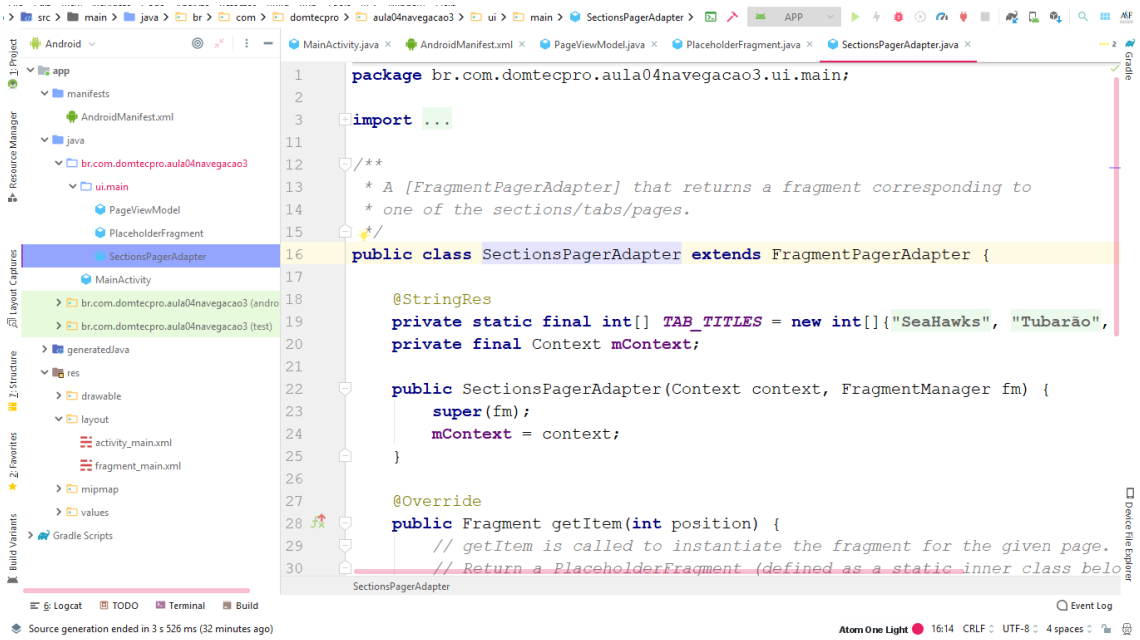
f. Altere o arquivo strings.xml para criar os recursos das três imagens que serão utilizadas:
   viii. O caminho do strings.xml é: Android > app > res > values > strings.xml




```
<resources>
    <string name="app_name">Aula04Navegacao3</string>
    <string name="tab_text_1">SeaHawks</string>
    <string name="tab_text_2">Tubarão</string>
    <string name="tab_text_3">Confiança</string>
</resources>
```

Agora vamos alterar as classes responsáveis pela movimentação do Tabbed Activity:

Abra a classe SectionsPagerAdapter.java em Android > app > java > br.com.itb.aula04navegacao3 > ui.man > SectionsPagerAdapter.java

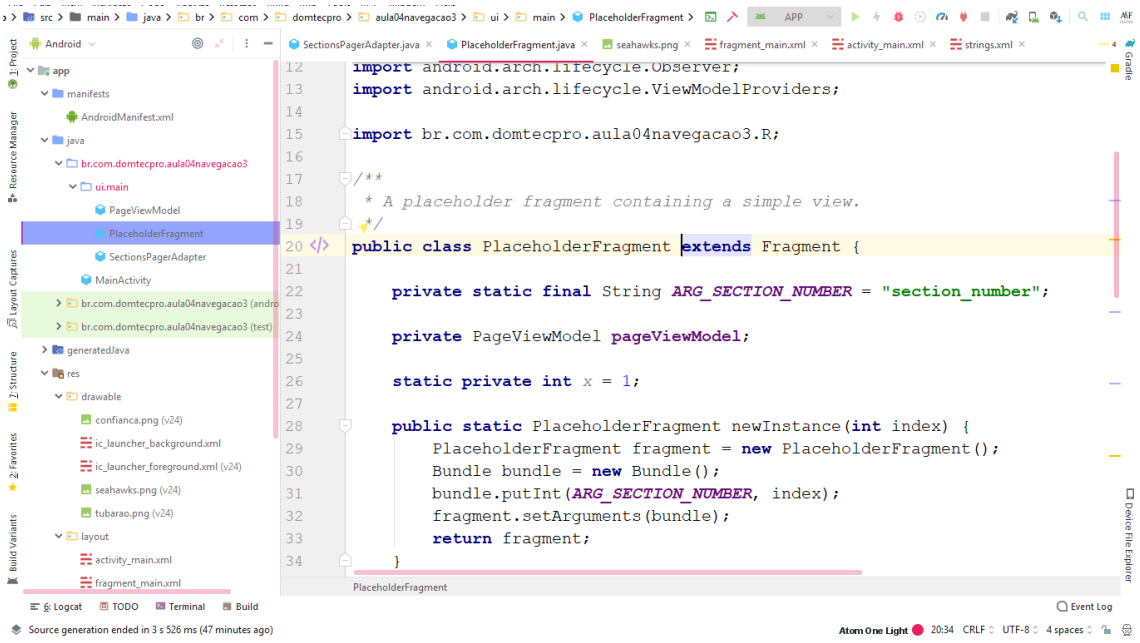



Altere o código como abaixo:

```
package br.com.domtecpro.aula04navegacao3.ui.main;

import android.content.Context;
import android.support.annotation.Nullable;
import android.support.annotation.StringRes;
import android.support.v4.app.Fragment;
import android.support.v4.app.FragmentManager;
import android.support.v4.app.FragmentPagerAdapter;

import br.com.domtecpro.aula04navegacao3.R;

/**
 * A [FragmentPagerAdapter] that returns a fragment corresponding to
 * one of the sections/tabs/pages.
 */
public class SectionsPagerAdapter extends FragmentPagerAdapter {

    @StringRes
    private static final int[] TAB_TITLES = new
int[]{R.string.tab_text_1, R.string.tab_text_2, R.string.tab_text_3};
    private final Context mContext;

    public SectionsPagerAdapter(Context context, FragmentManager fm) {
        super(fm);
        mContext = context;
    }

    @Override
    public Fragment getItem(int position) {
        // getItem is called to instantiate the fragment for the given
page.
        // Return a PlaceholderFragment (defined as a static inner
class below).
        return PlaceholderFragment.newInstance(position + 1);
    }
```

```
    @Nullable
    @Override
    public CharSequence getPageTitle(int position) {
        return
mContext.getResources().getString(TAB_TITLES[position]);
    }

    @Override
    public int getCount() {
        // Show 2 total pages.
        return 3;
    }
}
```

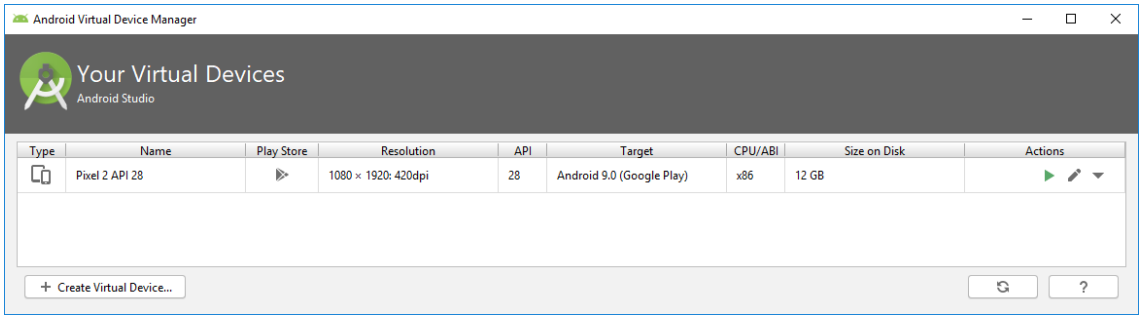
Abra a classe PlaceholderFragment.java em Android > app > java > br.com.itb.aula04navegacao3 > ui.man > PlaceholderFragment.java



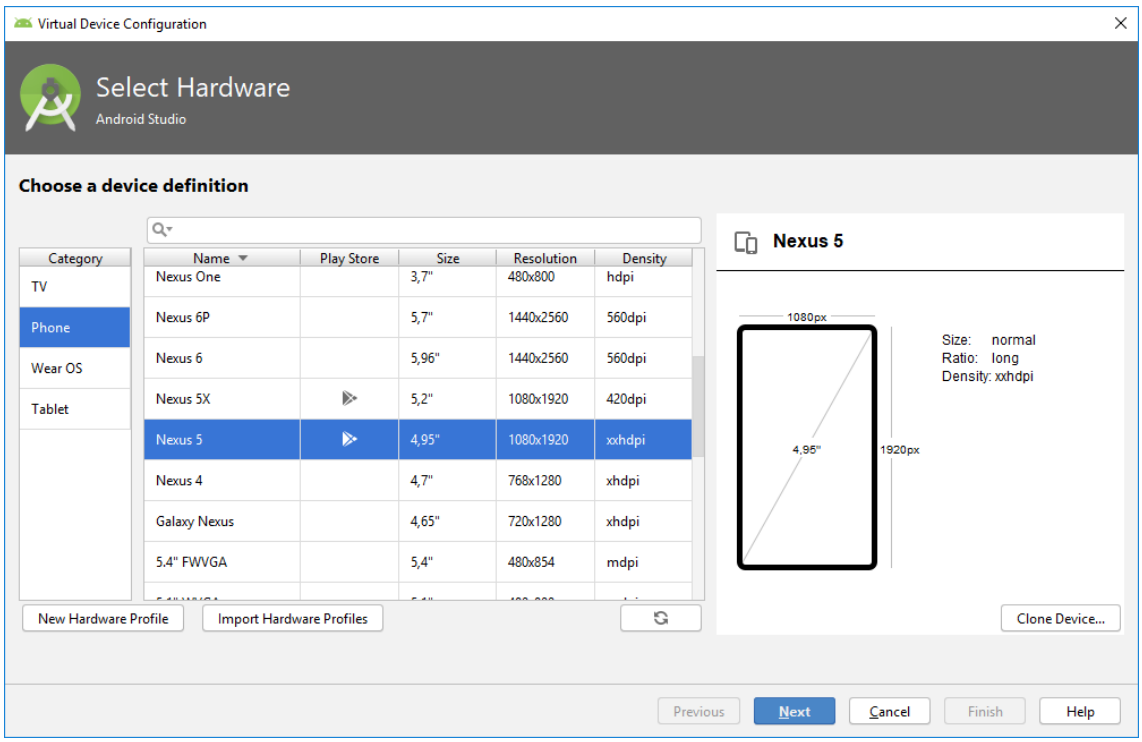

```
package br.com.domtecpro.aula04navegacao3.ui.main;

import android.os.Bundle;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.ImageView;
import android.widget.TextView;
import android.support.annotation.Nullable;
import android.support.annotation.NonNull;
import android.support.v4.app.Fragment;
import android.arch.lifecycle.Observer;
import android.arch.lifecycle.ViewModelProviders;

import br.com.domtecpro.aula04navegacao3.R;

/**
 * A placeholder fragment containing a simple view.
 */
```

```
public class PlaceholderFragment extends Fragment {

    private static final String ARG_SECTION_NUMBER = "section_number";

    private PageViewModel pageViewModel;

    static private int x = 1;

    public static PlaceholderFragment newInstance(int index) {
        PlaceholderFragment fragment = new PlaceholderFragment();
        Bundle bundle = new Bundle();
        bundle.putInt(ARG_SECTION_NUMBER, index);
        fragment.setArguments(bundle);
        return fragment;
    }

    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        pageViewModel =
ViewModelProviders.of(this).get(PageViewModel.class);
        int index = 1;
        if (getArguments() != null) {
            index = getArguments().getInt(ARG_SECTION_NUMBER);
        }
        pageViewModel.setIndex(index);
    }

    @Override
    public View onCreateView(
            @NonNull LayoutInflater inflater, ViewGroup container,
            Bundle savedInstanceState) {
        final View root = inflater.inflate(R.layout.fragment_main,
container, false);
        final TextView textView =
root.findViewById(R.id.section_label);
        //Adicionado ImageView para troca de imagens
        final ImageView imageView = root.findViewById(R.id.ivTime);

        pageViewModel.getText().observe(this, new Observer<String>() {
            @Override
            public void onChanged(@Nullable String s) {
                textView.setText(s);

                int x = Integer.parseInt(s.replace("Hello world from
section: ", "").trim());

                if(x == 1){
                    imageView.setImageResource(R.drawable.seahawks);
                } else if(x == 2){
                    imageView.setImageResource(R.drawable.tubarao);
                } else if(x == 3){
                    imageView.setImageResource(R.drawable.confianca);
                }
            }
        });
        return root;
    }
}
```

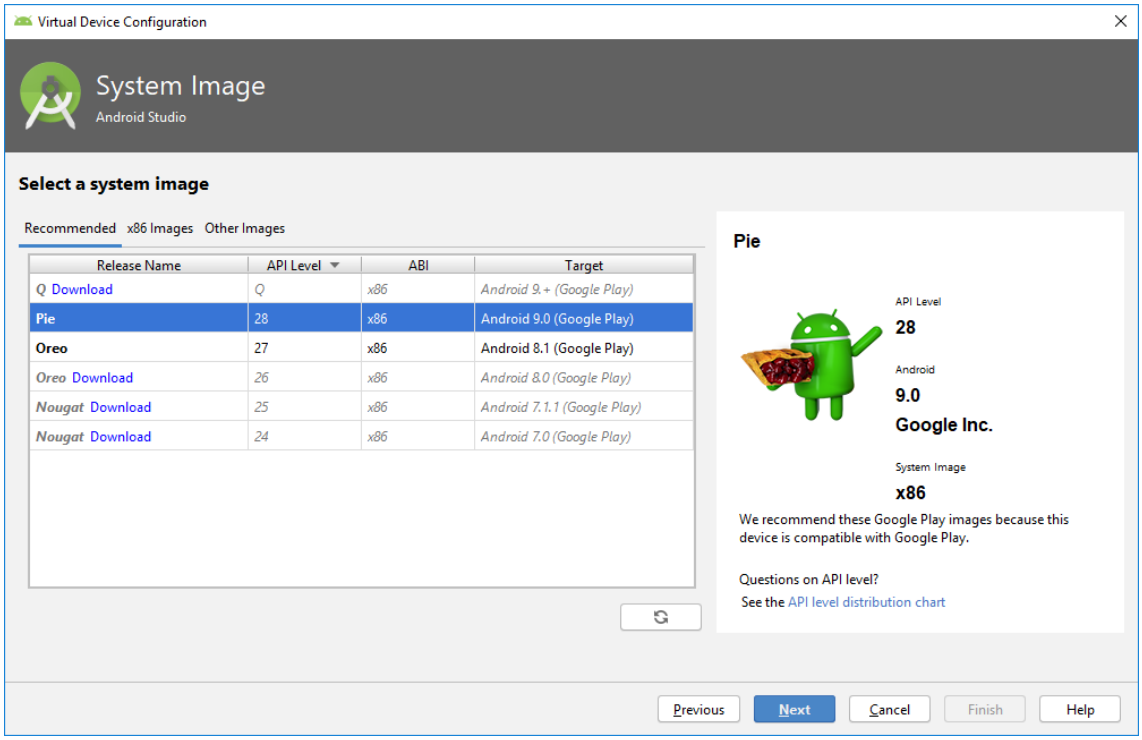
Clique em Tools > AVD Manager e crie sua máquina virtual clicando em Create Virtual Device:



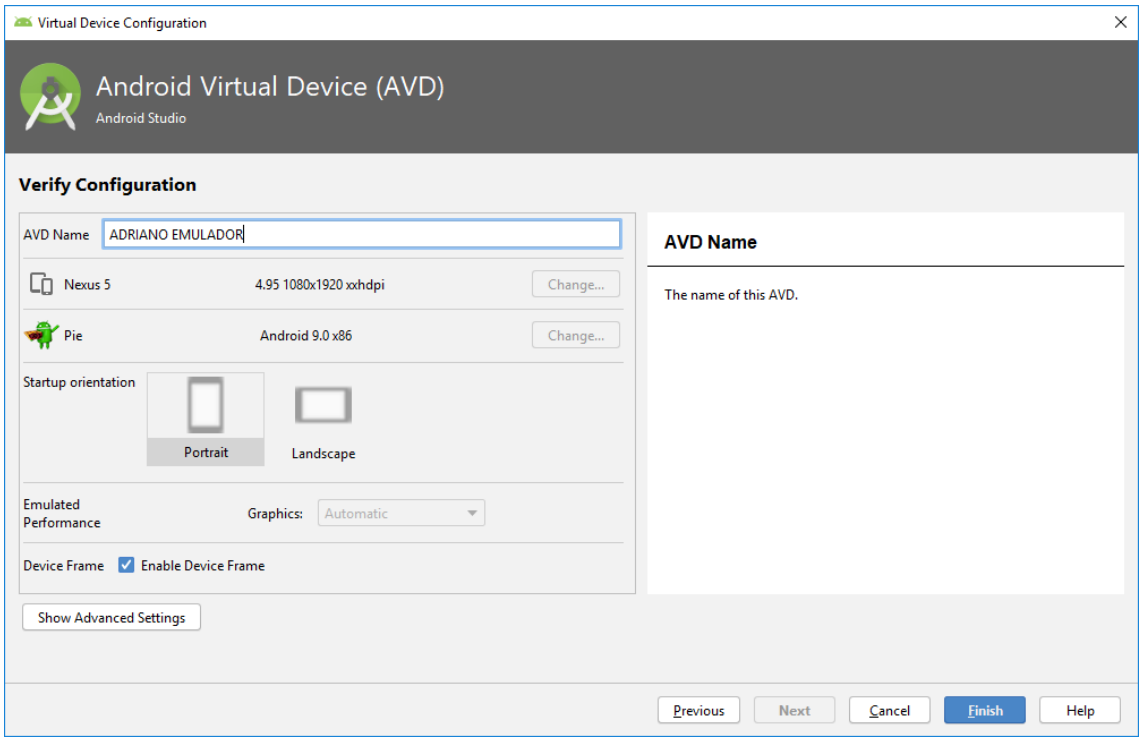

Selecione o aparelho, isto é a dimensão da tela desejada e clique em Next:



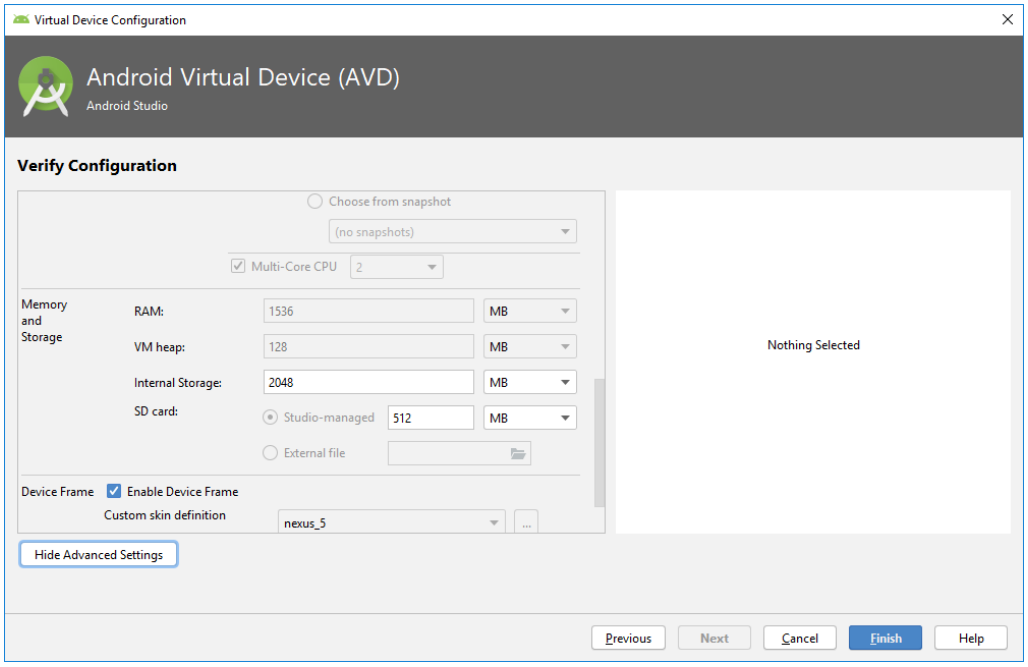
Selecione a imagem de sistema operacional da máquina virtual e clique em Next:




Altere o AVD Name para <SEU NOME> EMULADOR:
*Se preferir remova o clique na opção Enable Device Frame se preferir obter apenas a emulação da tela do celular.*



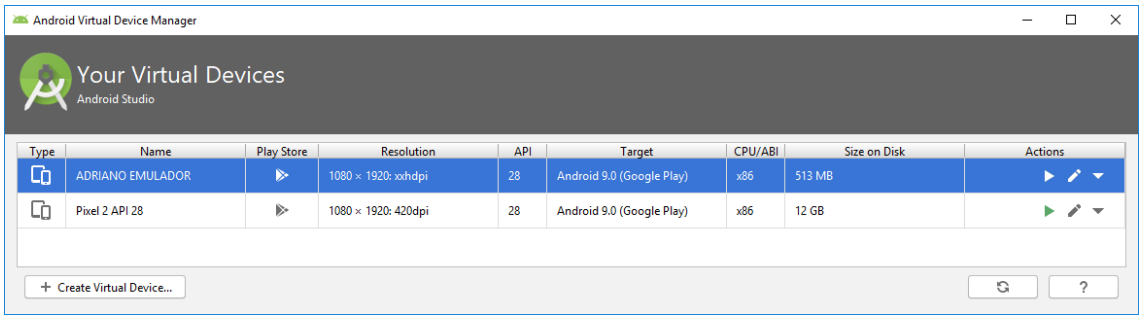

Clique no botão chamado Show Advanced Settings para ajustar a memória do emulador:




Altere a propriedade RAM para 200Mb e a propriedade VM heap para 32Mb.

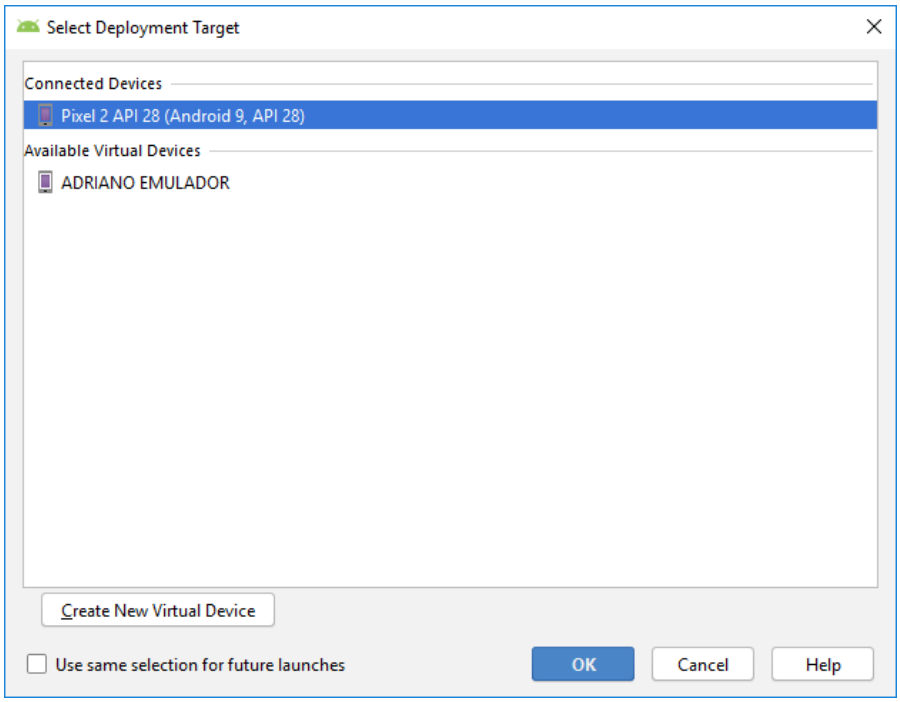
Clique em Finish ao terminar os ajustes de memória.

Execute o emulador criado, clicando no ícone de execução (play), para editar a máquina virtual basta clicar na caneta ao lado do play:

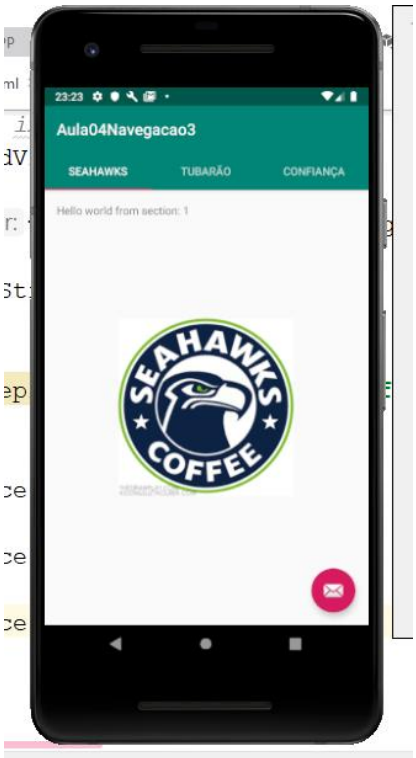




Clique no menu Run > Run app… (Shift+F10)




Escolha o emulador e clique em OK (dê preferência ao aparelho ou emulador em execução em Connected Devices)




## Referência Bibliográfica

[1] http://developer.android.com. Acessado em 28/04/2019.

[2] https://stackoverflow.com/questions/17398640/android-support-v4-app-fragmenttransaction-required. Acessado em 01/05/2019.

[3] https://developer.android.com/training/basics/fragments/communicating.html. Acessado em 01/05/2019.

[4] https://developer.android.com/guide/components/fragments.html. Acessado em 01/05/2019.