

SailingAdventures [C:\Users\nbashias1\Documents\AndroidStudioProjects\SailingAdventures] - ...app\src\main\java\edu\udayton\sailingadventures>MainActivity.java [app] - Android Studio

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help

SailingAdventures app src main java [app] C:\Users\nbashias1\Documents\AndroidStudioProjects\SailingAdventures\app\src\main\res\layout\activity_main.xml

1:Project Resource Manager

Android

app

- manifests
- AndroidManifest.xml
- java
- edu.udayton.sailingadventures
- MainActivity
- edu.udayton.sailingadventures (androidTest)
- edu.udayton.sailingadventures (test)

generatedJava

res

- drawable
- layout
- mipmap
- values
 - colors.xml
 - dimens.xml
 - strings.xml
 - styles.xml

Gradle Scripts

I:Structure

2:Favorites

Build Variants

Layout Captures

activity_main.xml x MainActivity.java x

```
1 package edu.udayton.sailingadventures;
2
3 import ...
4
5 public class MainActivity extends AppCompatActivity {
6
7     private TextView resTextView; // output TextView
8
9     private static final Calendar cal = Calendar.getInstance();
10
11    private static final DateFormat fmtDate = DateFormat.getDateInstance();
12
13    @Override
14    protected void onCreate(Bundle savedInstanceState) {
15        super.onCreate(savedInstanceState);
16        setContentView(R.layout.activity_main);
17
18        // get UI component references
19
20        resTextView = (TextView) findViewById(R.id.resText);
21        Button btnDate = (Button) findViewById(R.id.btnDate);
22
23        // set listener for button
24        btnDate.setOnClickListener(new View.OnClickListener() {
25            @Override
26            public void onClick(View v) {
27                // get current date
28                Date currentDate = new Date();
29
30                // set date to calendar
31                cal.set(Calendar.YEAR, currentDate.getYear());
32                cal.set(Calendar.MONTH, currentDate.getMonth());
33                cal.set(Calendar.DAY_OF_MONTH, currentDate.getDate());
34
35                // set date to text view
36                resTextView.setText(fmtDate.format(cal.getTime()));
37            }
38        });
39
40        // set up listener for user date picker
41        DatePickerDialog.OnDateSetListener datePickerListener = new DatePickerDialog.OnDateSetListener() {
42            @Override
43            public void onDateSet(DatePicker view, int year, int month, int day) {
44
45                // set the selected date and time in the Calendar
46
47                cal.set(Calendar.YEAR, year);
48                cal.set(Calendar.MONTH, month);
49                cal.set(Calendar.DAY_OF_MONTH, day);
50
51                // get the selected date from the calendar, and show it to the user
52
53                Date reservedDate = cal.getTime();
54                resTextView.setText("Your reservation is set for " + fmtDate.format(reservedDate));
55            }
56        };
57
58        // set up listener for the btnDate Button
59        btnDate.setOnClickListener(datePickerListener);
60    }
61
62    // set up listener for the btnDate Button
63    btnDate.setOnClickListener(datePickerListener);
64}
```

In Part 3 of this lesson, we completed and test our app for a "standard" (default) Android phone.

In this part of Lesson 6, we use Android Studio's implementation of Responsive Design to easily develop and test an "extra large" layout for a 10-inch tablet.

This means that, due to responsive design, we only have to add the new layout by copying and then modifying the existing layout.

Without adding or modifying any Java code, our app will work correctly on the new platform!

Event Log

Emulator: Process finished with exit code 0 (6 minutes ago)

35:53 CRLF ÷ UTF-8 ÷ 4 spaces ÷

SailingAdventures [C:\Users\nbashias1\Documents\AndroidStudioProjects\SailingAdventures] - ...app\src\main\java\edu\udayton\sailingadventures\MainActivity.java [app] - Android Studio

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help

SailingAdventures app src main java [app] C:\Users\nbashias1\Documents\AndroidStudioProjects\SailingAdventures\app\src\main\res\layout\activity_main.xml

1: Project

Resource Manager

Let's start by switching back to the default layout (completed in Part 2)

Android

app

- manifests
- AndroidManifest.xml
- java
 - edu.udayton.sailingadventures
 - MainActivity
- generatedJava
- res
 - drawable
 - layout
 - mipmap
 - values
 - colors.xml
 - dimens.xml
 - strings.xml
 - styles.xml

Gradle Scripts

2: Favorites

Build Variants

Layout Captures

MainActivity.java

```
1 package edu.udayton.sailingadventures;
2 ...
3
4 class MainActivity extends AppCompatActivity {
5     ...
6     private static final Calendar cal = Calendar.getInstance();
7
8     private static final DateFormat fmtDate = DateFormat.getDateInstance();
9
10    @Override
11    protected void onCreate(Bundle savedInstanceState) {
12        super.onCreate(savedInstanceState);
13        setContentView(R.layout.activity_main);
14
15        // get UI component references
16
17        resTextView = (TextView) findViewById(R.id.resTextView);
18        Button btnDate = (Button) findViewById(R.id.btnDate);
19
20        // set listener for btnDate button
21
22        btnDate.setOnClickListener(btnDateListener);
23
24    } // end onCreate method
25
26
27    // set up listener for user choosing a date
28    DatePickerDialog.OnDateSetListener dateListener = new DatePickerDialog.OnDateSetListener() {
29        @Override
30        public void onDateSet(DatePicker view, int year, int monthOfYear, int dayOfMonth) {
31
32            // set the selected date and time in the Calendar
33
34            cal.set(Calendar.YEAR, year);
35            cal.set(Calendar.MONTH, monthOfYear);
36            cal.set(Calendar.DAY_OF_MONTH, dayOfMonth);
37
38            // get the selected date from the calendar, and show it to the user
39
40            Date reservedDate = cal.getTime();
41            resTextView.setText("Your reservation is set for " + fmtDate.format(reservedDate));
42
43        } // end onDateSet handler
44
45    };
46
47
48    // set up listener for the btnDate Button
49
50    ...
51
52
53
54
55
56
57
58 }
```

MainActivity > onCreate()

TODO Terminal Build Logcat Profiler Run Event Log

Emulator: Process finished with exit code 0 (6 minutes ago) 35:53 CRLF UTF-8 4 spaces

SailingAdventures [C:\Users\nbashias1\Documents\AndroidStudioProjects\SailingAdventures] - ...app\src\main\java\edu\udayton\sailingadventures\MainActivity.java [app] - Android Studio

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help

SailingAdventures > app > src > main > java > edu > udayton > sailingadventures > MainActivity

1:Project
Resource Manager
2:Structure
Favorites
Build Variants
Layout Captures
Device File Explorer

Android
manifests
AndroidManifest.xml
java
edu.udayton.sailingadventures
MainActivity
edu.udayton.sailingadventures (androidTest)
edu.udayton.sailingadventures (test)
generatedJava
res
drawable
layout
mipmap
values
colors.xml
dimens.xml
strings.xml
styles.xml
Gradle Scripts

activity_main.xml > MainActivity.java > Device for Preview (D)

Device for Preview (D) Nexus 5_P 28 AppTheme Default (en-us) 28% + A Attributes
Common Ab TextView
Text Button
Buttons ImageView
Widgets RecyclerView
Layouts <> <fragment>
Containers ScrollView
Google Switch
Legacy

Click to display the device preview menu

What would this layout look like on a 10-inch tablet?
Let's use the preview to find out.

- Kona, Hawaii
a Harbor on the Big Island in Hawaii, has a simple sailing
Our experience, expertise and knowledge of the high
seas provide our customers with the best chance of having an enjoyable and productive
sailing adventure. Select a date for your sailing day trip.
Select the Date for a Full-Day Sailing Trip

Component Tree
LinearLayout(horizontal)
sailboatImageView
tblLayout
tblRow1
View
Ab titleTextView- "@string..."
tblRow2
View
Ab descTextView- "@str..." A
tblRow3
View
btnDate- "@string/btn..."
tblRow4
View
Ab resTextView

Sailing Adventures - Kona, Hawaii
Sailing Adventures
SELECT THE DATE FOR A FULL-DAY SAILING TRIP

Design Text

TODO Terminal Build Logcat Profiler Run
Device for Preview (D) Event Log
35:53 CRLF UTF-8 4 spaces

SailingAdventures [C:\Users\nbashias1\Documents\AndroidStudioProjects\SailingAdventures] - ...app\src\main\java\edu\udayton\sailingadventures\MainActivity.java [app] - Android Studio

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help

SailingAdventures > app > src > main > java > edu > udayton > sailingadventures > MainActivity

1:Project Resource Manager 2:Structure Favorites Build Variants Layout Captures

activity_main.xml MainActivity.java

Palette Attributes

Common Ab TextView

Text Button

Buttons ImageView

Widgets RecyclerView

Layouts <> <fragment>

Containers ScrollView

Google Switch

Legacy

Nexus_5_Pie 28 AppTheme Default (en-us) 28% + A

Phone

5.0, 1080 x 1920, 420dpi (Pixel)

5.0, 1080 x 1920, 420dpi (Pixel 2)

5.2, 1080 x 1920, 420dpi (Nexus 5X)

5.5, 1080 x 2160, 440dpi (Pixel 3)

5.5, 1440 x 2560, 560dpi (Pixel XL)

5.7, 1440 x 2560, 560dpi (Nexus 6P)

6.0, 1440 x 2560, 560dpi (Nexus 6)

6.0, 1440 x 2880, 560dpi (Pixel 2 XL)

6.3, 1440 x 2960, 560dpi (Pixel 3 XL)

Tablet

7.0, 800 x 1280, tvdpi (Nexus 7 2012)

7.0, 1200 x 1920, xhdpi (Nexus 7)

8.9, 2048 x 1536, xhdpi (Nexus 9)

9.9, 2560 x 1800, xhdpi (Pixel C)

10.1, 2560 x 1600, xhdpi (Nexus 10)

Wear

280 x 280, hdpi (Square)

320 x 320, hdpi (Round)

320 x 290, tvdpi (Round Chin)

TV

1080p, 1920 x 1080, xhdpi (TV)

720p, 1280 x 720, tvdpi (TV)

Custom

Virtual Device

AVD: Nexus10_Pie

AVD: Nexus5_Pie

AVD: Nexus7_Pie

Generic Phones and Tablets

Add Device Definition...

Kona, Hawaii

arbor on the Big Island in Hawaii, has a simple sailing
r experience, expertise and knowledge of the high
est chance of having an enjoyable and productive
ur sailing day trip.

te for a Full-Day Sailing Trip

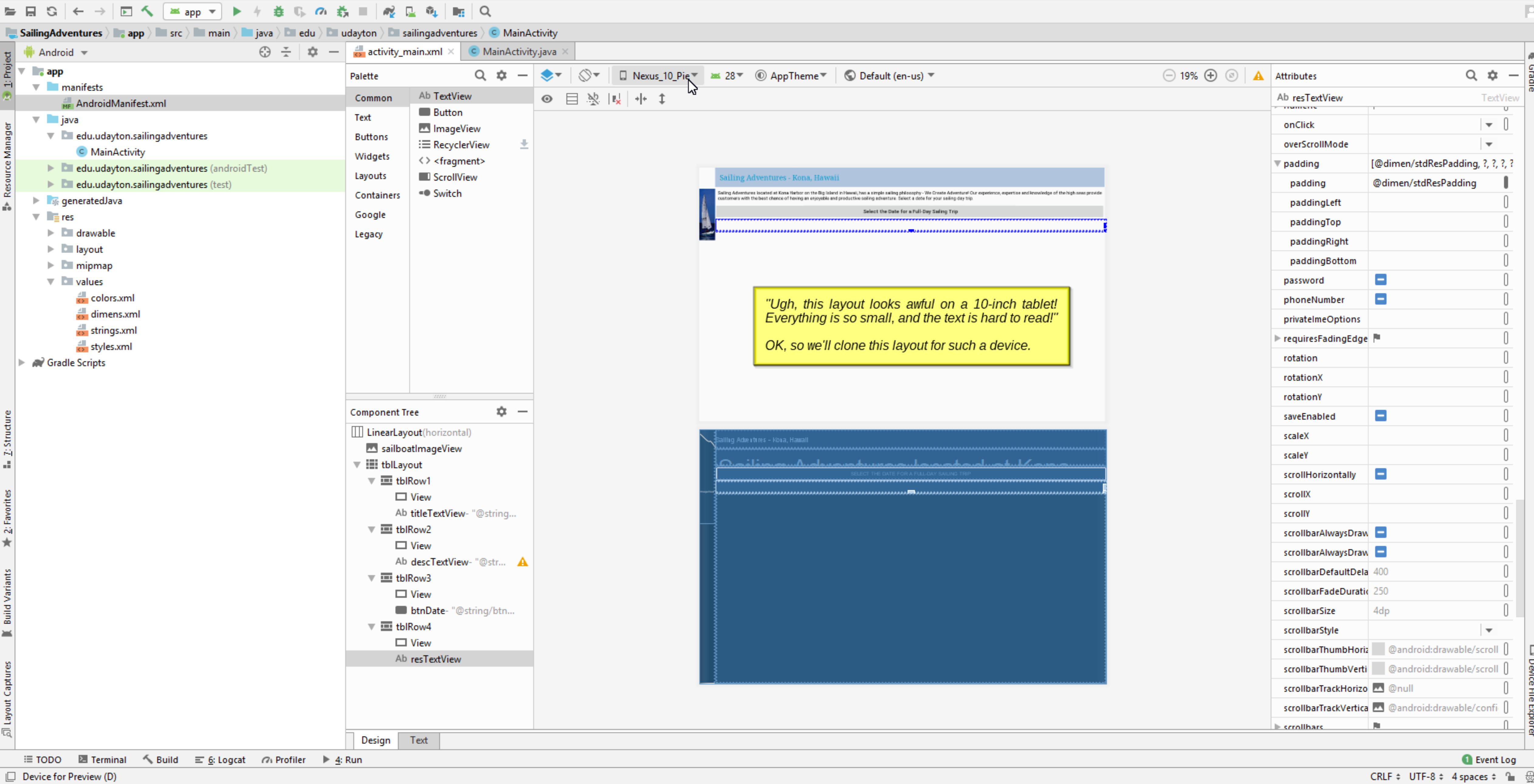
Hawaii
entures

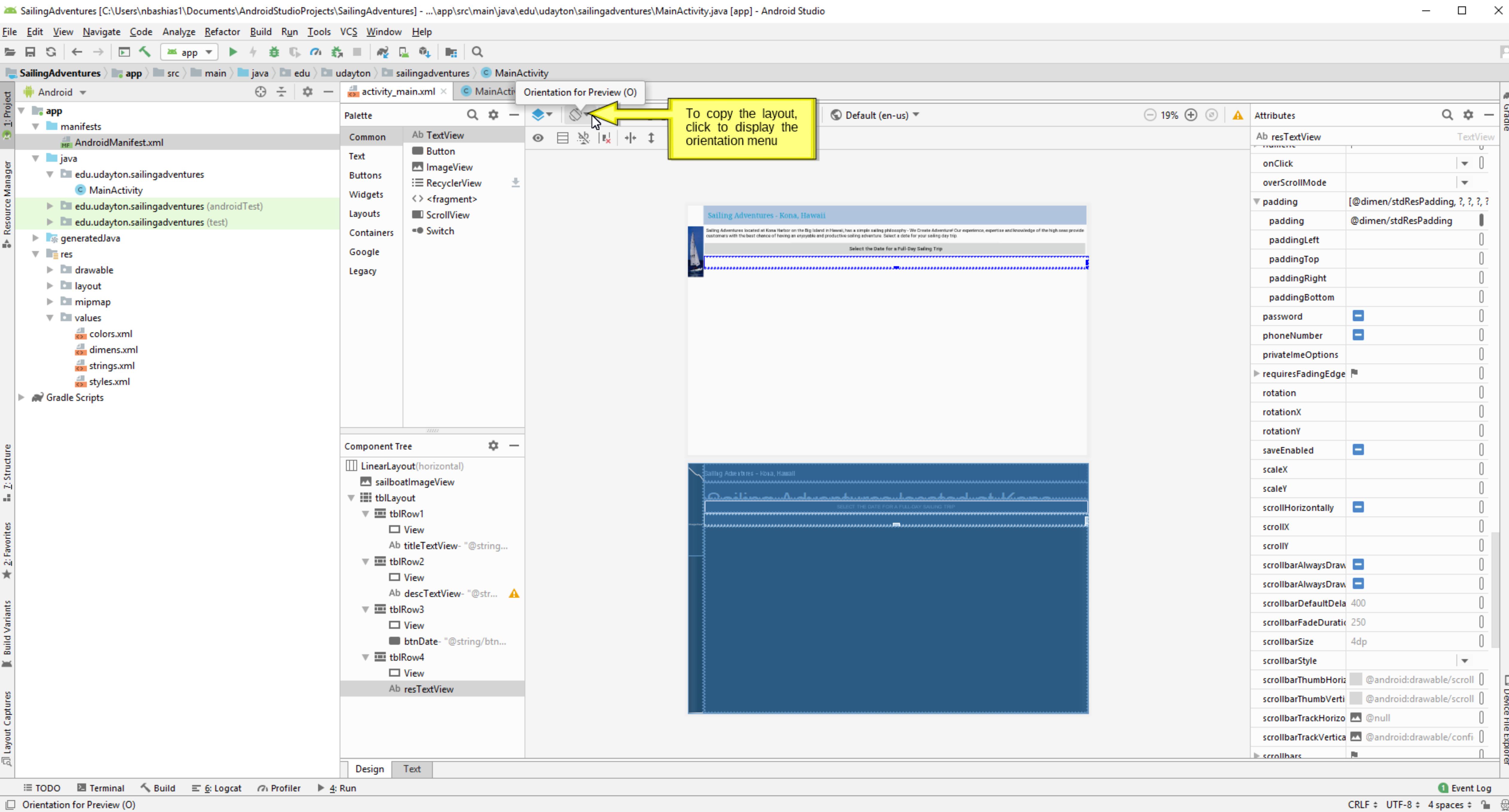
Select the Nexus 10 system image
(created in Part 1)

Design Text

TODO Terminal Build Logcat Profiler Run Event Log

Emulator: Process finished with exit code 0 (6 minutes ago) CRLF UTF-8 4 spaces





SailingAdventures [C:\Users\nbashias1\Documents\AndroidStudioProjects\SailingAdventures] - ...app\src\main\java\edu\udayton\sailingadventures\MainActivity.java [app] - Android Studio

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help

SailingAdventures > app > src > main > java > edu > udayton > sailingadventures > MainActivity

1:Project
Resource Manager
2:Structure
Favorites
Build Variants
Layout Captures
2: Favorites
Build Scripts

Android
Manifests
Java
edu.udayton.sailingadventures
MainActivity
edu.udayton.sailingadventures (androidTest)
edu.udayton.sailingadventures (test)
generatedJava
res
drawable
layout
mipmap
values
colors.xml
dimens.xml
strings.xml
styles.xml

activity_main.xml
MainActivity.java

Palette
Common
Text
Buttons
Widgets
Layouts
Containers
Google
Legacy

Nexus_10_Pie 28 AppTheme Default (en-us) 19% Attributes

Portrait
Landscape
UI Mode
Night Mode
Create Landscape Variation
Create Tablet Variation
Create Other...

Select Create Other... to create a different variation of this layout

Component Tree

- LinearLayout(horizontal)
 - sailboatImageView
 - tblLayout
 - tblRow1
 - View
 - Ab titleTextView- "@string..."
 - tblRow2
 - View
 - Ab descTextView- "@str..."
 - tblRow3
 - View
 - btnDate- "@string/btn..."
 - tblRow4
 - View
 - Ab resTextView

Design Text

TODO Terminal Build Logcat Profiler Run Event Log

Emulator: Process finished with exit code 0 (7 minutes ago) CRLF UTF-8 4 spaces

Device File Explorer

SailingAdventures [C:\Users\nbashias1\Documents\AndroidStudioProjects\SailingAdventures] - ...app\src\main\java\edu\udayton\sailingadventures\MainActivity.java [app] - Android Studio

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help

SailingAdventures > app > src > main > java > edu > udayton > sailingadventures > MainActivity

Android

1: Project SailingAdventures

Java

Manifests

AndroidManifest.xml

Java

edu.udayton.sailingadventures

MainActivity

edu.udayton.sailingadventures (androidTest)

edu.udayton.sailingadventures (test)

generatedJava

res

drawable

layout

mipmap

values

colors.xml

dimens.xml

strings.xml

styles.xml

Gradle Scripts

2: Structure

Layouts

Containers

Google

Legacy

Palette

Common

Ab TextView

Ab Button

Ab ImageView

Ab RecyclerView

<> <fragment>

Ab ScrollView

Ab AdapterView

Ab AdapterView

Nexus_10_Pie 28 AppTheme Default (en-us) 19% Attributes

Ab resTextView

name

onClick

overScrollMode

padding

[@dimen/stdResPadding, ?, ?, ?, ?]

padding

@dimen/stdResPadding

paddingLeft

paddingTop

paddingRight

paddingBottom

password

phoneNumber

privateImeOptions

requiresFadingEdge

rotation

rotationX

rotationY

saveEnabled

scaleX

scaleY

scrollHorizontally

scrollX

scrollY

scrollbarAlwaysDraw

scrollbarAlwaysDraw

scrollbarDefaultDelt

250

scrollbarFadeDuration

400

scrollbarSize

4dp

scrollbarStyle

scrollbarThumbHoriz

@android:drawable(scroll)

scrollbarThumbVerti

@android:drawable(scroll)

scrollbarTrackHorizo

@null

scrollbarTrackVertica

@android:drawable(confi

scrollbars

Select Resource Directory

Directory name: layout

Resource type: layout

Available qualifiers:

Country Code

Network Code

Locale

Layout Direction

Smallest Screen Width

Screen Width

Screen Height

Size

Ratio

Orientation

UI Mode

Night Mode

Density

Touch Screen

Keyboard

Chosen qualifiers:

Nothing to show

OK Cancel Help

Design Text

Notice all the qualifiers that can be used to find-tune the layout that is being created!

For instance, we could add an orientation qualifier that would allow us to develop different layouts for the device displaying the layout in either portrait or landscape view!

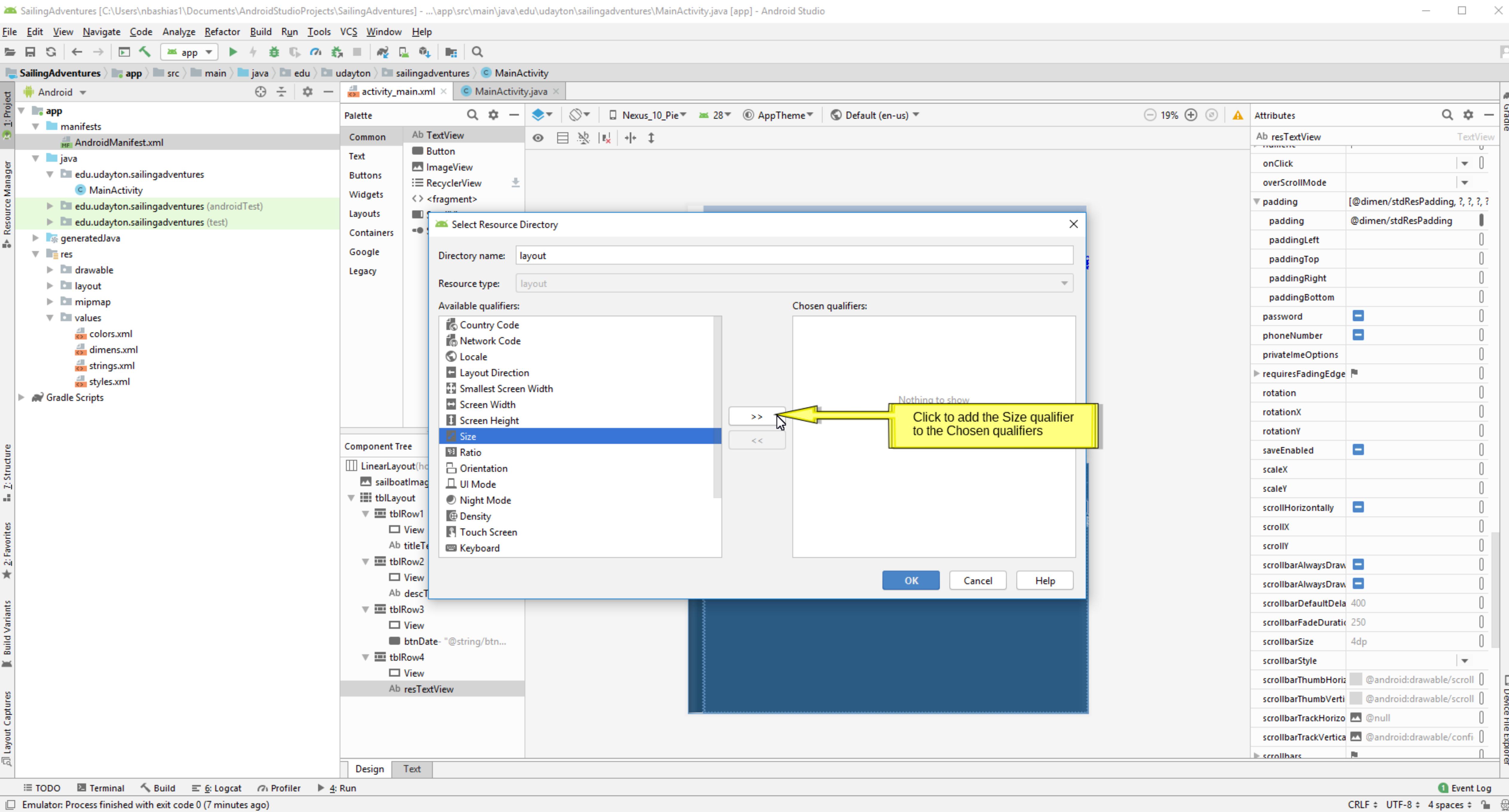
Click to add the Size qualifier to our list of Chosen qualifiers, since we are creating a different-size layout

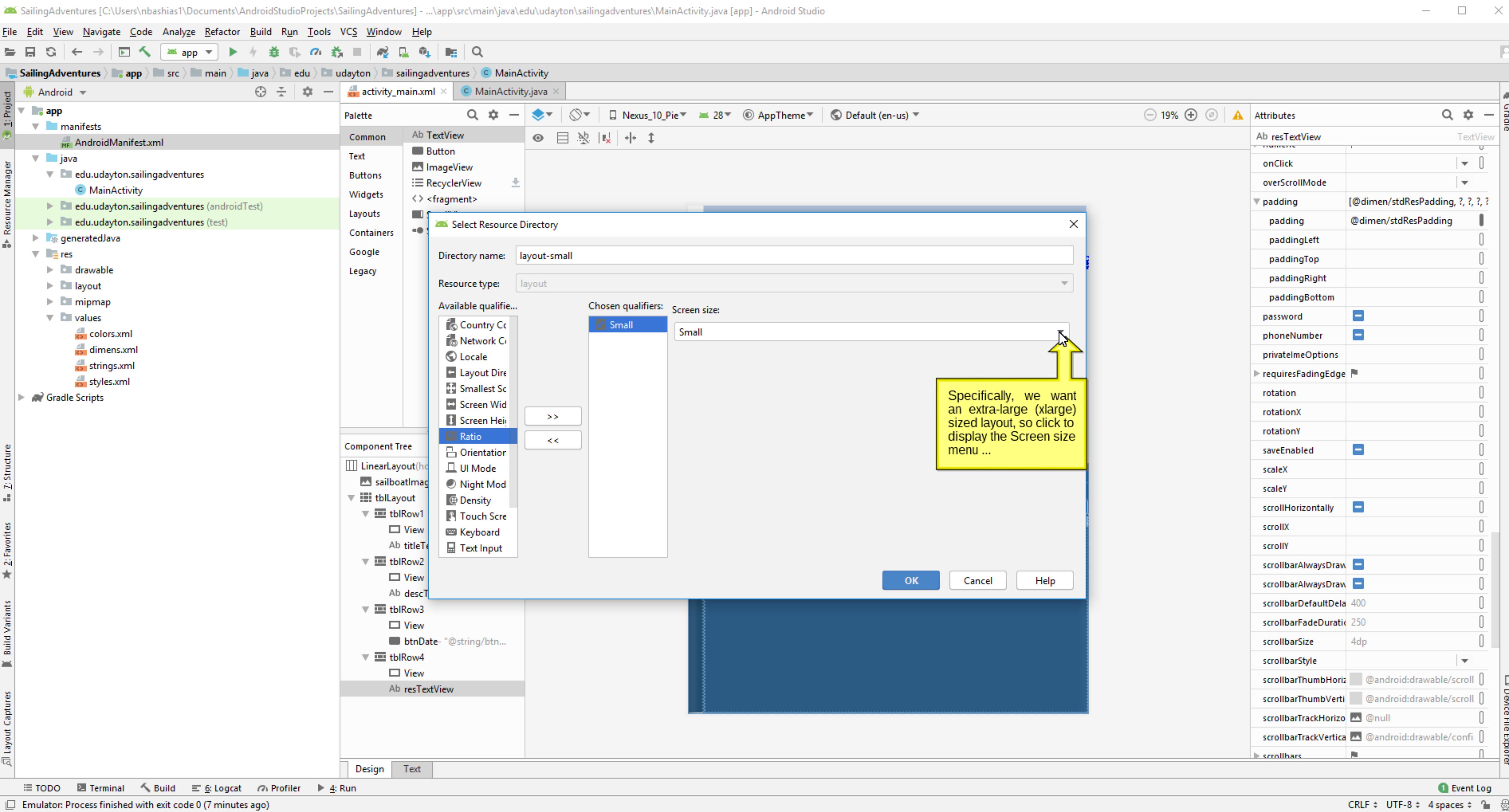
Layout Captures

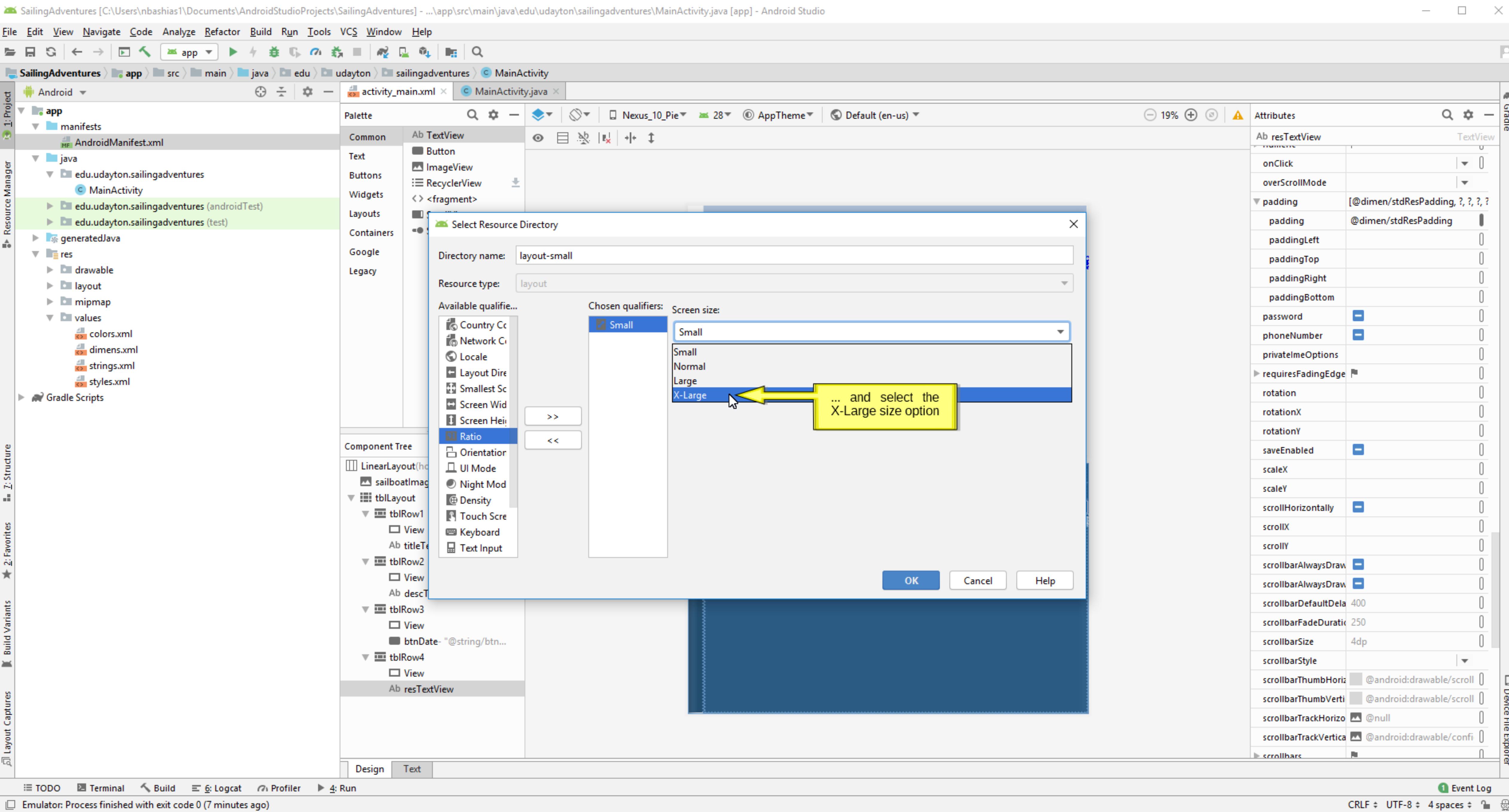
Build Variants

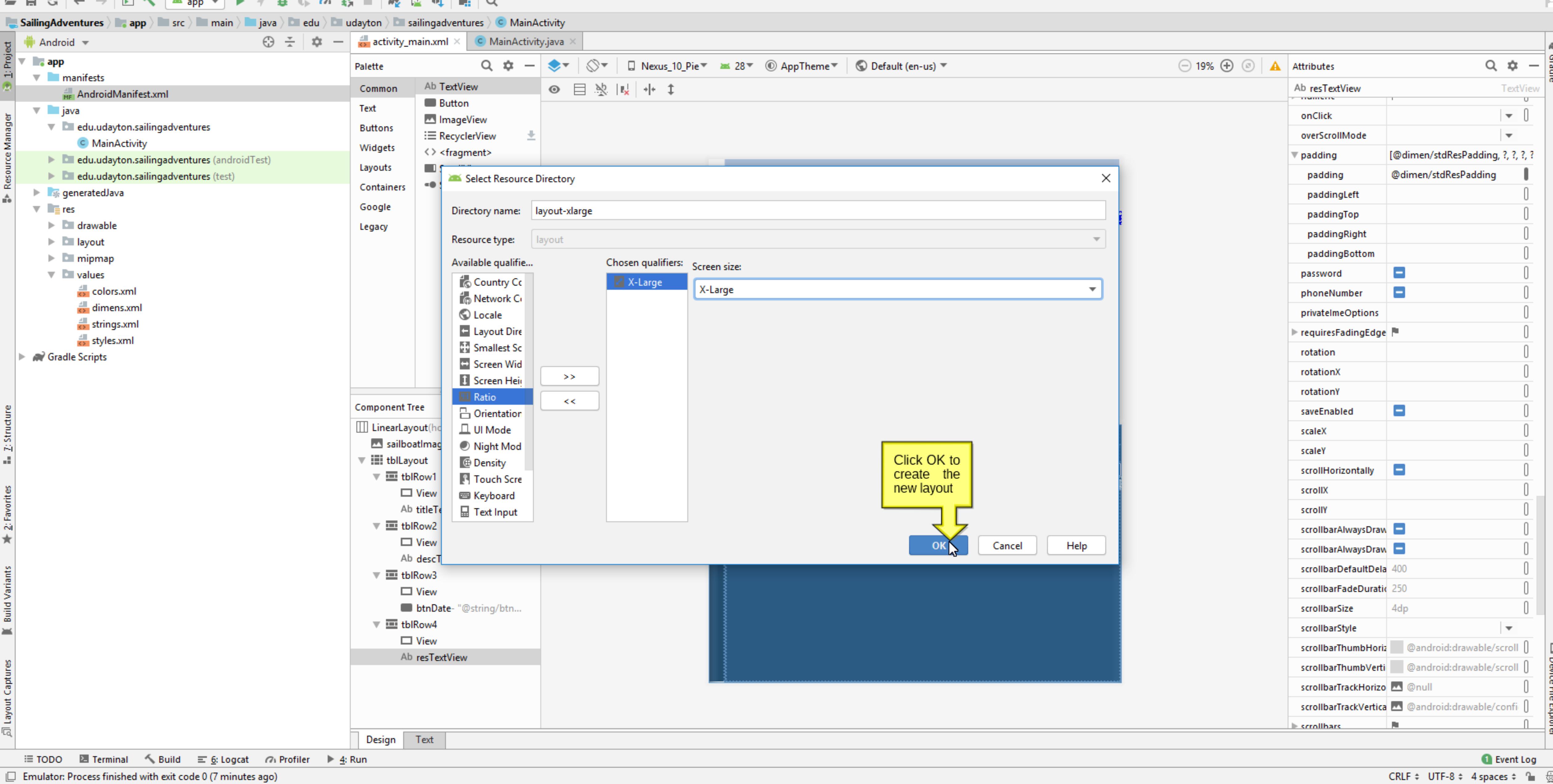
Favorites

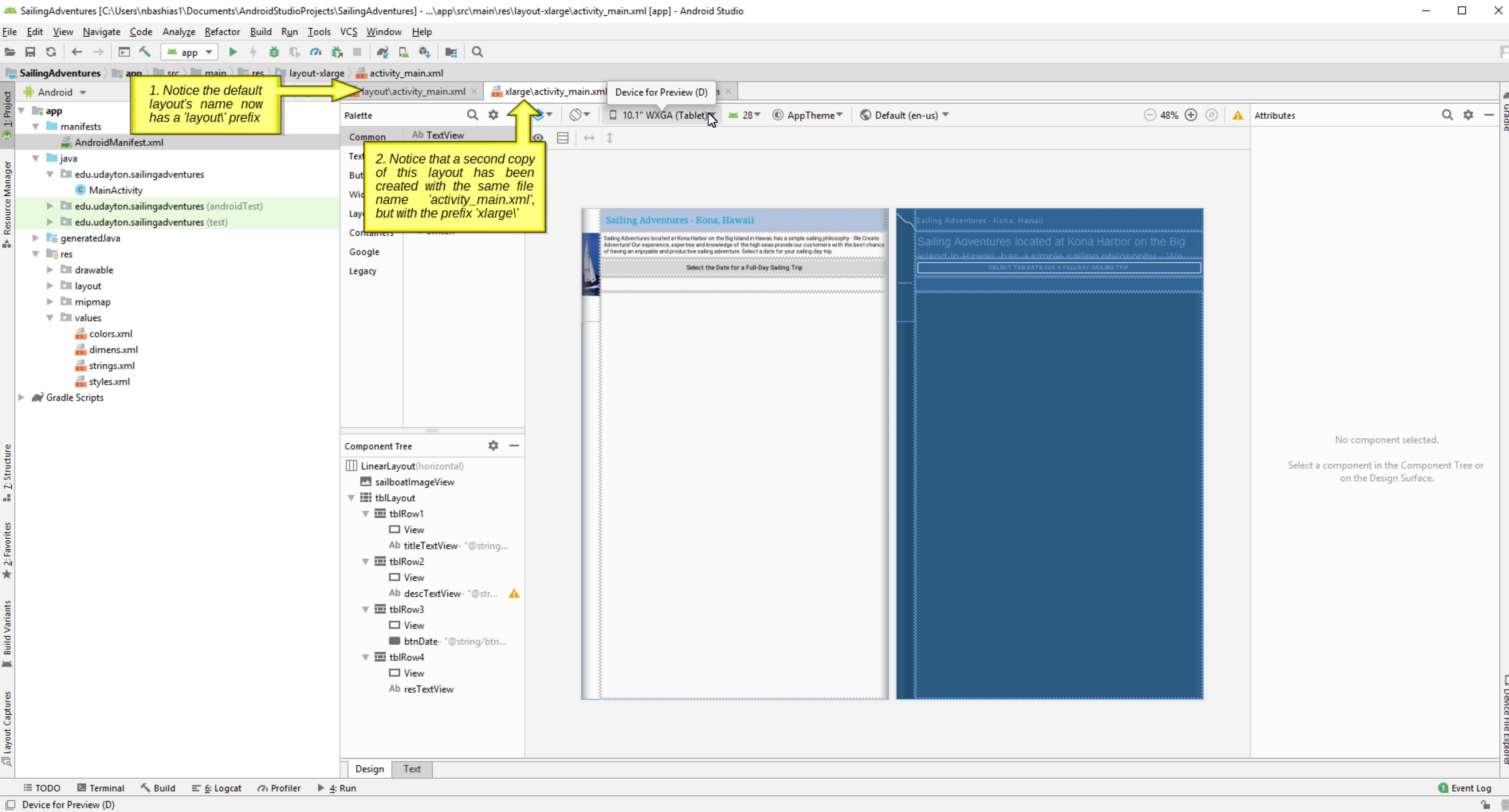
Layout File Explorer

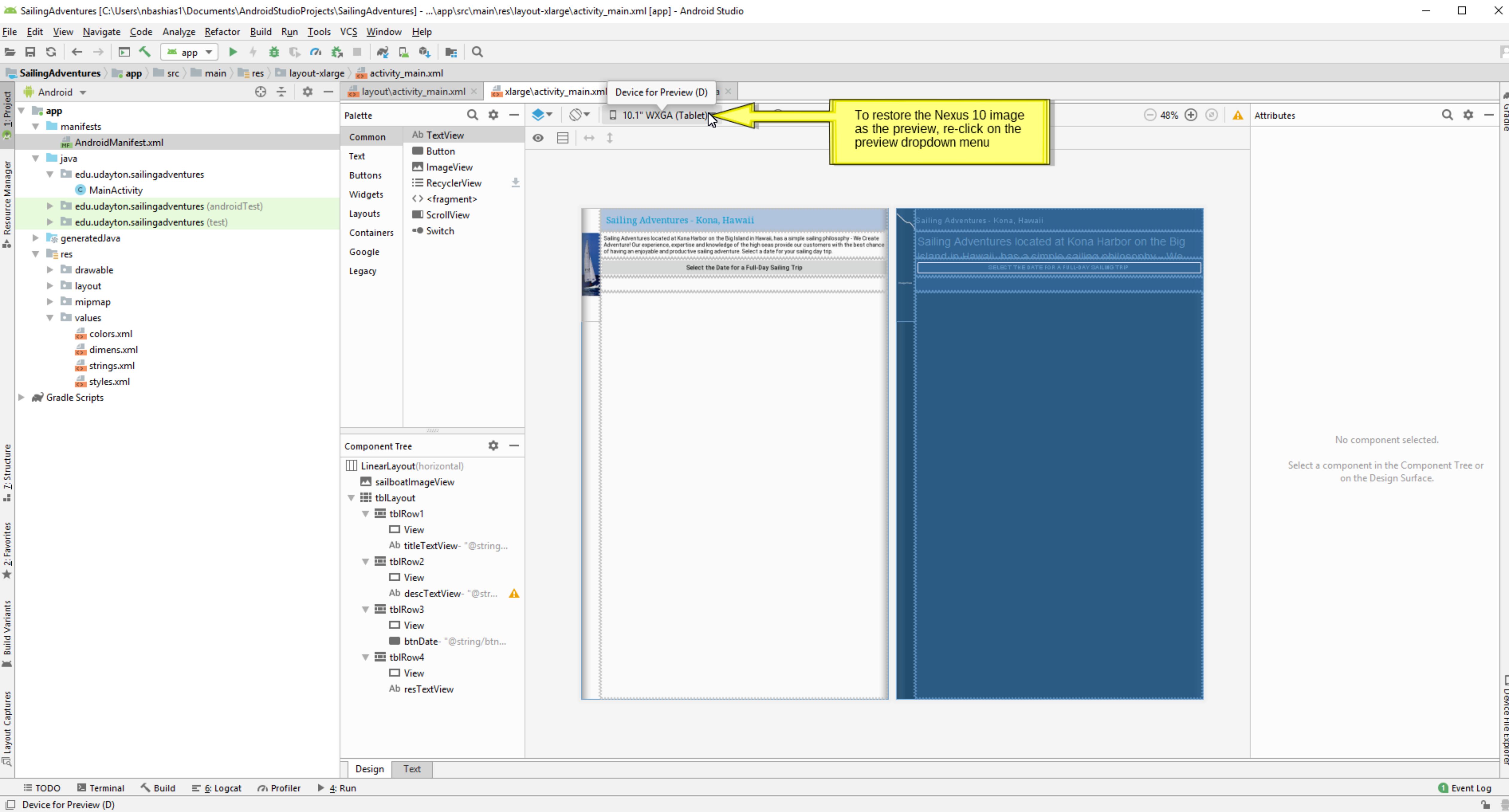












SailingAdventures [C:\Users\nbashias1\Documents\AndroidStudioProjects\SailingAdventures] - ...app\src\main\res\layout-xlarge\activity_main.xml [app] - Android Studio

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help

SailingAdventures app src main res layout-xlarge activity_main.xml

1:Project

Resource Manager

Palette

Common Text Buttons Widgets Layouts Containers Google Legacy

layout\activity_main.xml xlarge\activity_main.xml MainActivity.java

10.1" WXGA (Tablet) 28 AppTheme Default (en-us) 48% Attributes

No component selected.

Select a component in the Component Tree or on the Design Surface.

Component Tree

- LinearLayout(horizontal)
 - sailboatImageview
- tblLayout
 - tblRow1
 - View
 - Ab titleTextview- "@string..."
 - tblRow2
 - View
 - Ab descTextview- "@str..."
 - tblRow3
 - View
 - btnDate- "@string/btn..."
 - tblRow4
 - View
 - Ab resTextview

Re-select the Nexus 10 image we created in Part 1

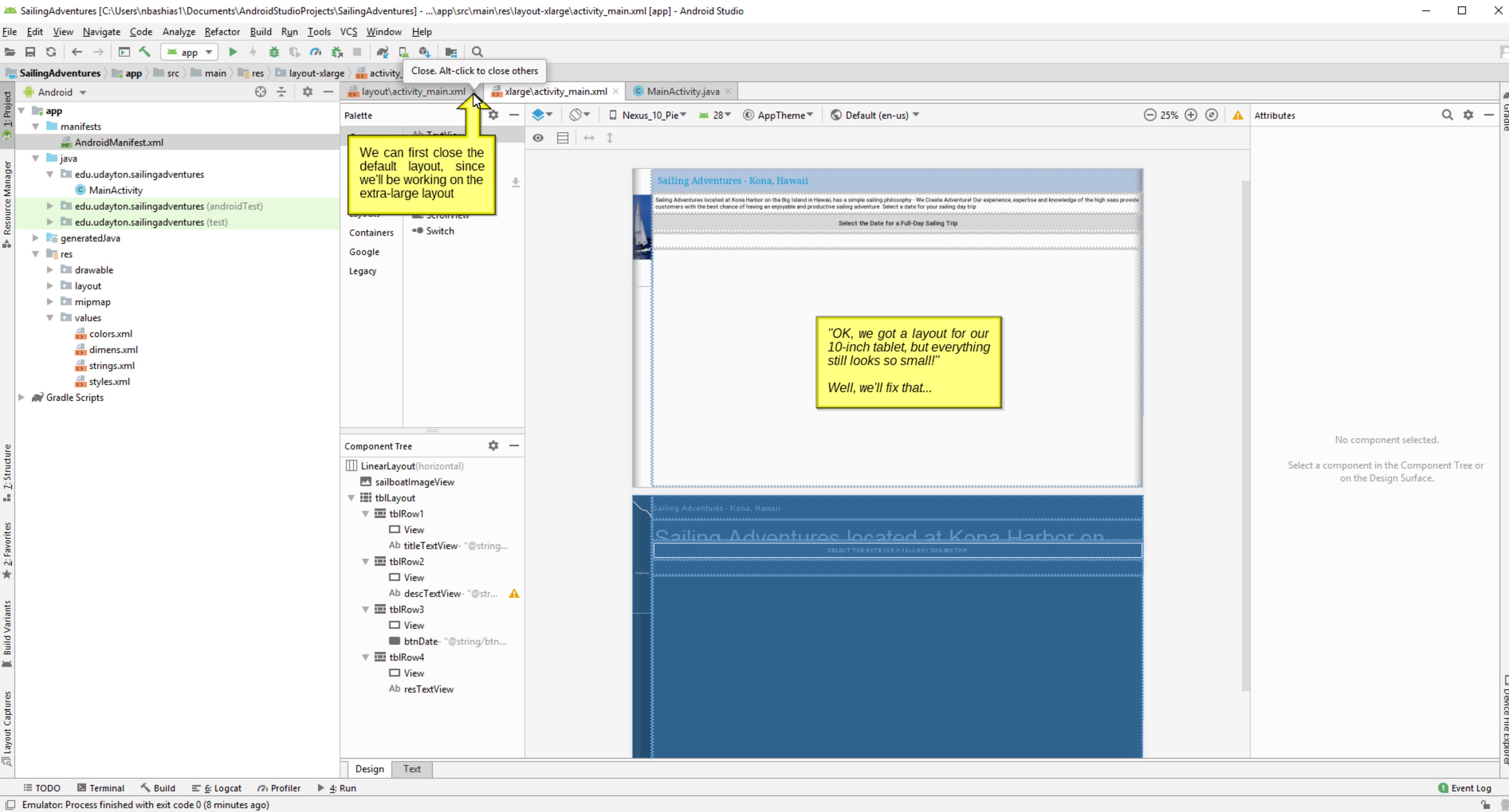
AVD: Nexus10_Pie AVD: Nexus5_Pie AVD: Nexus7_Pie Generic Phones and Tablets Add Device Definition...

Design Text

TODO Terminal Build Logcat Profiler Run Event Log

Emulator: Process finished with exit code 0 (8 minutes ago)

The screenshot shows the Android Studio interface with the project 'SailingAdventures' open. The 'activity_main.xml' layout file is being edited. The layout features a top section with a sailboat image and a bottom section with a table containing four rows. A yellow callout box points to the device selection dropdown in the top right, with the text 'Re-select the Nexus 10 image we created in Part 1'. The device dropdown shows various options like '10.1" WXGA (Tablet)', 'Nexus 10_Pie', etc.



SailingAdventures [C:\Users\nbashias1\Documents\AndroidStudioProjects\SailingAdventures] - ...app\src\main\res\layout-xlarge\activity_main.xml [app] - Android Studio

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help

SailingAdventures app src main res layout-xlarge activity_main.xml

1:Project SailingAdventures

Resource Manager

Java

MainActivity.java

Android

Manifests

AndroidManifest.xml

java

edu.udayton.sailingadventures

MainActivity

edu.udayton.sailingadventures (androidTest)

edu.udayton.sailingadventures (test)

generatedJava

res

drawable

layout

mipmap

values

colors.xml

dimens.xml

strings.xml

styles.xml

Gradle Scripts

Component Tree

LinearLayout(horizontal)

- sailboatImageview

tblLayout

- tblRow1
- View
- titleTextView- "@string..."

- tblRow2
- View
- descTextView- "@str..."

- tblRow3
- View
- btnDate- "@string/btn..."

- tblRow4

Switch to the
xlarge layout's
text view

No component selected.

Select a component in the Component Tree or
on the Design Surface.

Nexus_10_Pie 28 AppTheme Default (en-us) 25% Attributes

Sailing Adventures - Kona, Hawaii

Sailing Adventures located at Kona Harbor on the Big Island in Hawaii, has a simple sailing philosophy - We Create Adventure! Our experience, expertise and knowledge of the high seas provide customers with the best chance of having an enjoyable and productive sailing adventure. Select a date for your sailing day trip.

Select the Date for a Full-Day Sailing Trip

Sailing Adventures - Kona, Hawaii

Sailing Adventures located at Kona Harbor on the Big Island in Hawaii, has a simple sailing philosophy - We Create Adventure! Our experience, expertise and knowledge of the high seas provide customers with the best chance of having an enjoyable and productive sailing adventure. Select a date for your sailing day trip.

SELECT THE DATE FOR A FULL-DAY SAILING TRIP

Design Text

TODO Terminal Build Logcat Profiler Run Event Log

Emulator: Process finished with exit code 0 (9 minutes ago)

SailingAdventures [C:\Users\nbashias1\Documents\AndroidStudioProjects\SailingAdventures] - ...app\src\main\res\layout-xlarge\activity_main.xml [app] - Android Studio

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help

SailingAdventures app src main res layout-xlarge activity_main.xml

Android

Project

Resource Manager

Gradle Scripts

2: Structure

2: Favorites

Build Variants

Layout Captures

1: Project

app

manifests

AndroidManifest.xml

java

edu.udayton.sailingadventures

MainActivity

edu.udayton.sailingadventures (androidTest)

edu.udayton.sailingadventures (test)

generatedJava

res

drawable

layout

mipmap

values

colors.xml

dimens.xml

strings.xml

styles.xml

activity_main.xml

xlarge\activity_main.xml

MainActivity.java

Preview

Nexus_10_Pie 28 AppTheme 17%

Palette

Design Text

OK, remember the naming scheme when we created the dimension resources?
If you don't, you can review slides 37 and 38 in Part 1 of this lesson.

So, now we can perform a global find-and-replace of the prefix 'std' with the prefix 'xlr'.

Sailing Adventures - Kona, Hawaii
Sailing Adventures located at Kona Harbor on the Big Island in Hawaii, has a simple sailing philosophy - We Create Adventure! Our experience, expertise and knowledge of the high seas provide customers with the best chance of having an enjoyable and productive sailing adventure. Select a date for your sailing day trip.

Select the Date for a Full-Day Sailing Trip

Device File Explorer

Event Log

1:1 LF 4 spaces

Emulator: Process finished with exit code 0 (9 minutes ago)

TODO Terminal Build Logcat Profiler Run

SailingAdventures [C:\Users\nbashias1\Documents\AndroidStudioProjects\SailingAdventures] - ...app\src\main\res\layout-xlarge\activity_main.xml [app] - Android Studio

File Edit Under the Edit menu ... Tools VCS Window Help

SailingAdventures app src main res layout-xlarge activity_main.xml

1: Project Resource Manager 2: Favorites Build Variants Layout Captures

Android app manifests AndroidManifest.xml java edu.udayton.sailingadventures MainActivity generatedJava res drawable layout mipmap values colors.xml dimens.xml strings.xml styles.xml Gradle Scripts

xlarge\activity_main.xml MainActivity.java

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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">

    <ImageView
        android:id="@+id/sailboatImageView"
        android:layout_width="99dp"
        android:layout_height="295dp"
        android:layout_weight="1"
        android:contentDescription="sailboat"
        app:srcCompat="@drawable/sail" />

    <TableLayout
        android:id="@+id/tblLayout"
        android:layout_width="fill_parent"
        android:layout_height="fill_parent"
        android:layout_gravity="center_vertical"
        android:layout_weight="1">

        <TableRow
            android:id="@+id/tblRow1"
            android:layout_width="fill_parent"
            android:layout_height="wrap_content" >
            <View android:layout_height="27dp" />

            <TextView
                android:id="@+id/titleTextView"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:background="@color/titleBackground"
                android:gravity="fill_horizontal"
                android:padding="15dp"
                android:text="Sailing Adventures - Kona, Hawaii"
                android:textColor="@android:color/holo_blue_dark"
                android:textSize="23sp"
                app:fontFamily="serif" />
        </TableRow>

        <TableRow
            android:id="@+id/tblRow2"
            android:layout_width="fill_parent"
            android:layout_height="wrap_content" >
            <View android:layout_height="27dp" />
    </TableLayout>

```

Preview Nexus_10_Pie 28 AppTheme 17% + Preview

Sailing Adventures - Kona, Hawaii
Sailing Adventures located at Kona Harbor on the Big Island in Hawaii, has a simple sailing philosophy - We Create Adventure! Our experience, expertise and knowledge of the high seas provide customers with the best chance of having an enjoyable and productive sailing adventure. Select a date for your sailing day trip.

Select the Date for a Full-Day Sailing Trip

Design Text

TODO Terminal Build Logcat Profiler Run Event Log

Emulator: Process finished with exit code 0 (9 minutes ago) 1:1 LF UTF-8 4 spaces

SailingAdventures [C:\Users\nbashias1\Documents\AndroidStudioProjects\SailingAdventures] - ...app\src\main\res\layout-xlarge\activity_main.xml [app] - Android Studio

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help

Undo Ctrl+Z
Redo Ctrl+Shift+Z

Cut Ctrl+X
Copy Ctrl+C
Copy Path Ctrl+Shift+C
Copy Reference Ctrl+Alt+Shift+C
Paste Ctrl+V
Paste from History... Ctrl+Shift+V
Paste without Formatting Ctrl+Alt+Shift+V
Delete Delete

Find Find... Ctrl+F
Replace... Replace... ... select Find > Replace...
Find Next / Move to Next Occurrence
Find Previous / Move to Previous Occurrence Shift+F3
Find Word at Caret Ctrl+F3
Select All Occurrences Ctrl+Alt+Shift+J
Add Selection for Next Occurrence Alt+J
Unselect Occurrence Alt+Shift+J
Go to next highlighted element usage
Go to previous highlighted element usage
Find in Path... Ctrl+Shift+F
Replace in Path... Ctrl+Shift+R
Search Structurally...
Replace Structurally...
Find Usages Alt+F7
Find Usages Settings... Ctrl+Alt+Shift+F7
Show Usages Ctrl+Alt+F7
Find Usages in File Ctrl+F7
Highlight Usages in File Ctrl+Shift+F7
Recent Find Usages

Encode XML/HTML Special Characters

layout-xlarge activity_main.xml

1 <?xml version="1.0" encoding="utf-8" ?>
2 <LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
3 xmlns:app="http://schemas.android.com/apk/res-auto"
4 xmlns:tools="http://schemas.android.com/tools"
5 android:layout_width="match_parent"
6 android:layout_height="match_parent"
7 tools:context=".MainActivity">
8
9
10 <TableLayout
11 android:id="@+id/tblRow1"
12 android:layout_width="fill_parent"
13 android:layout_height="wrap_content" >
14 <TableRow
15 android:background="@color/titleBackground"
16 android:gravity="fill_horizontal"
17 android:padding="15dp"
18 android:text="Sailing Adventures - Kona, Hawaii"
19 android:textColor="@android:color/holo_blue_dark"
20 android:textSize="23sp"
21 app:fontFamily="serif" />
22 </TableRow>
23 <TableRow
24 android:id="@+id/tblRow2"
25 android:layout_width="fill_parent"
26 android:layout_height="wrap_content" >
27 <View android:layout_height="27dp" />

Preview Nexus_10_Pie 28 AppTheme 17% 1:1 LF UTF-8 4 spaces

Resource Manager

Palette

Gradle

Preview

Design Text

TODO Terminal Build Logcat Profiler Run Event Log

Replace a string in active editor with another string

SailingAdventures [C:\Users\nbashias1\Documents\AndroidStudioProjects\SailingAdventures] - ...app\src\main\res\layout-xlarge\activity_main.xml [app] - Android Studio

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help

SailingAdventures > app > src > main > res > layout-xlarge > activity_main.xml

1. Enter 'std' as the search text and 'xlr' as the replacement text

2. Make sure case is matched and preserved during the replacement process by checking both these boxes

3. Click to replace all instances of 'std' with 'xlr'

Preview

Nexus_10_Pie 28 AppTheme 17% +

1. Enter 'std' as the search text and 'xlr' as the replacement text

2. Make sure case is matched and preserved during the replacement process by checking both these boxes

3. Click to replace all instances of 'std' with 'xlr'

Match Case Preserve Case

Replace Replace all

xml version="1.0" encoding="utf-8"?>

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android" xmlns:app="http://schemas.android.com/apk/res-auto" android:layout_width="match_parent" android:layout_height="match_parent" tools:context=".MainActivity" >

<ImageView android:id="@+id/sailboat" android:layout_width="@dimen/stdSailWidth" android:layout_height="295dp" android:layout_weight="1" android:contentDescription="sailboat" app:srcCompat="@drawable/sail" />

<TableLayout android:id="@+id/tblLayout" android:layout_width="fill_parent" android:layout_height="fill_parent" android:layout_gravity="center_vertical" android:layout_weight="1" >

<TableRow android:id="@+id/tblRow1" android:layout_width="fill_parent" android:layout_height="wrap_content" >

<View android:layout_height="27dp" />

<TextView android:id="@+id/titleTextView" android:layout_width="wrap_content" android:layout_height="wrap_content" android:background="@color/titleBackground" android:gravity="fill_horizontal" android:padding="15dp" android:text="Sailing Adventures - Kona, Hawaii" android:textColor="@android:color/holo_blue_dark" android:textSize="23sp" app:fontFamily="serif" />

</TableRow>

<TableRow >

Design Text

Linear Layout > ImageView

Emulator: Process finished with exit code 0 (9 minutes ago)

Event Log

SailingAdventures [C:\Users\nbashias1\Documents\AndroidStudioProjects\SailingAdventures] - ...app\src\main\res\layout-xlarge\activity_main.xml [app] - Android Studio

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help

SailingAdventures > app > src > main > res > layout-xlarge > activity_main.xml

Android

1: Project

app
manifests
AndroidManifest.xml
java
edu.udayton.sailingadventures
MainActivity
edu.udayton.sailingadventures (androidTest)
edu.udayton.sailingadventures (test)
generatedJava
res
drawable
layout
mipmap
values
colors.xml
dimens.xml
strings.xml
styles.xml

Resource Manager

2: Structure

Gradle Scripts

3: Favorites

Build Variants

Layout Captures

Close search bar (Escape)

Search Bar: std, xlrq

Match Case
Preserve Case
In Selection

No matches

Code Editor:

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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">

    <ImageView
        android:id="@+id/sailboatImageView"
        android:layout_width="@dimen/xlrqSailWidth"
        android:layout_height="@dimen/xlrqSailHeight"
        android:layout_weight="1"
        android:contentDescription="@string/txtSailBoat"
        app:srcCompat="@drawable/sail" />

    <TableLayout
        android:id="@+id/tblLayout"
        android:layout_width="fill_parent"
        android:layout_height="fill_parent"
        android:layout_gravity="center_vertical"
        android:layout_weight="1">

        <TableRow
            android:id="@+id/tblRow1"
            android:layout_width="fill_parent"
            android:layout_height="wrap_content" >
            <View android:layout_height="@dimen/xlrqViewHeight" />

            <TextView
                android:id="@+id/titleTextView"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:background="@color/titleBackground"
                android:gravity="fill_horizontal"
                android:padding="@dimen/xlrqTitlePadding"
                android:text="@string/txtTitle"
                android:textColor="@android:color/holo_blue_dark"
                android:textSize="@dimen/xlrqTitleTextSize"
                app:fontFamily="serif" />
        </TableRow>

        <TableRow>
```

Design Text

Preview:

Sailing Adventures - Kona, Hawaii

Sailing Adventures located at Kona Harbor on the Big Island in Hawaii, has a simple sailing philosophy - We Create Adventure! Our experience, expertise and knowledge of the high seas provide our customers with the best chance of having an enjoyable and productive sailing adventure. Select a date for your sailing day trip.

Select the Date for a Full-Day Sailing Trip

Emulator: Process finished with exit code 0 (10 minutes ago)

88:46 LF 4 spaces

SailingAdventures [C:\Users\nbashias1\Documents\AndroidStudioProjects\SailingAdventures] - ...app\src\main\res\layout-xlarge\activity_main.xml [app] - Android Studio

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help

SailingAdventures app src main res layout-xlarge activity_main.xml

Android

1: Project

Resource Manager

2: Structure

3: Favorites

Build Variants

Layout Captures

Design Text

Switch back to the design view

Preview

Nexus_10_Pie 28 AppTheme 17% +

MainActivity.java

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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">

    <ImageView
        android:id="@+id/sailboatImageView"
        android:layout_width="@dimen/xlrgSailWidth"
        android:layout_height="@dimen/xlrgSailHeight"
        android:layout_weight="1"
        android:contentDescription="@string/txtSailBoat"
        app:srcCompat="@drawable/sail" />

    <TableLayout
        android:id="@+id/tblLayout"
        android:layout_width="fill_parent"
        android:layout_height="fill_parent"
        android:layout_gravity="center_vertical"
        android:layout_weight="1">

        <TableRow
            android:id="@+id/tblRow1"
            android:layout_width="fill_parent"
            android:layout_height="wrap_content" >
            <View android:layout_height="@dimen/xlrgViewHeight" />

        <TextView
            android:id="@+id/titleTextView"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:background="@color/titleBackground"
            android:gravity="fill_horizontal"
            android:padding="@dimen/xlrgTitlePadding"
            android:text="@string/txtTitle"
            android:textColor="@android:color/holo_blue_dark"
            android:textSize="@dimen/xlrgTitleTextSize"
            app:fontFamily="serif" />
    

```

Sailing Adventures - Kona, Hawaii

Sailing Adventures located at Kona Harbor on the Big Island in Hawaii, has a simple sailing philosophy - We Create Adventure! Our experience, expertise and knowledge of the high seas provide our customers with the best chance of having an enjoyable and productive sailing adventure. Select a date for your sailing day trip.

Select the Date for a Full-Day Sailing Trip

Device File Explorer

Event Log

Emulator: Process finished with exit code 0 (10 minutes ago) 88:46 LF 4 spaces

SailingAdventures [C:\Users\nbashias1\Documents\AndroidStudioProjects\SailingAdventures] - ...app\src\main\res\layout-xlarge\activity_main.xml [app] - Android Studio

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help

Re-build the project

Make Project (Ctrl+F9)

SailingAdventure main res layout-xlarge activity_main.xml

1:Project

Resource Manager

2:Structure

3:Favorites

Build Variants

Layout Captures

Design Text

Palette

Common Text Buttons Widgets Layouts Containers Google Legacy

Nexus_10_Pie 28 AppTheme Default (en-us) 25% Attributes

Sailing Adventures - Kona, Hawaii

Sailing Adventures located at Kona Harbor on the Big Island in Hawaii, has a simple sailing philosophy - We Create Adventure! Our experience, expertise and knowledge of the high seas provide our customers with the best chance of having an enjoyable and productive sailing adventure. Select a date for your sailing day trip.

Select the Date for a Full-Day Sailing Trip

"OK, the XL layout looks so much better!"

And, more amazingly, that's all we need to do for responsive design!

Now, we just build the project, test it with the emulator running the Nexus 10 system image, and watch as our new layout is used on the larger device!

No component selected.

Select a component in the Component Tree or on the Design Surface.

Sailing Adventures - Kona, Hawaii

Sailing Adventures

SELECT THE DATE FOR A FULL-DAY SAILING TRIP

Emulator: Process finished with exit code 0 (10 minutes ago)

Event Log

SailingAdventures [C:\Users\nbashias1\Documents\AndroidStudioProjects\SailingAdventures] - ...app\src\main\res\layout-xlarge\activity_main.xml [app] - Android Studio

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help

Re-open the AVD Manager

AVD Manager

SailingAdventures > app > src > main > res > layout-xlarge

1: Project

AndroidManifest.xml

MainActivity.java

generatedJava

res

drawable

layout

mipmap

values

colors.xml

dimens.xml

strings.xml

styles.xml

Gradle Scripts

Resource Manager

Palette

Common

Text

Buttons

Widgets

Layouts

Containers

Google

Legacy

Nexus_10_Pie 28 AppTheme Default (en-us)

25% Attributes

Sailing Adventures - Kona, Hawaii

Sailing Adventures located at Kona Harbor on the Big Island in Hawaii, has a simple sailing philosophy - We Create Adventure! Our experience, expertise and knowledge of the high seas provide our customers with the best chance of having an enjoyable and productive sailing adventure. Select a date for your sailing day trip.

Select the Date for a Full-Day Sailing Trip

No component selected.

Select a component in the Component Tree or on the Design Surface.

Component Tree

- LinearLayout(horizontal)
 - sailboatImageview
- tblLayout
 - tblRow1
 - View
 - Ab titleTextView- "@string..."
 - tblRow2
 - View
 - Ab descTextView- "@str..."
 - tblRow3
 - View
 - btnDate- "@string/btn..."
 - tblRow4
 - View
 - Ab resTextView

Sailing Adventures - Kona, Hawaii

Sailing Adventures

SELECT THE DATE FOR A FULL-DAY SAILING TRIP

Design Text

TODO Terminal Build Logcat Profiler Run

Gradle build finished in 3 s 685 ms (moments ago)

Event Log

SailingAdventures [C:\Users\nbashias1\Documents\AndroidStudioProjects\SailingAdventures] - ...app\src\main\res\layout-xlarge\activity_main.xml [app] - Android Studio

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help

Android Virtual Device Manager

Your Virtual Devices

Android Studio

Type Name Play Store Resolution API Target CPU/ABI Size on Disk Launch this AVD in the emulator

Type	Name	Play Store	Resolution	API	Target	CPU/ABI	Size on Disk	Launch this AVD in the emulator
Emulator	Nexus 10 Pie		2560 x 1600: xhdpi	28	Android 9.0 (Google APIs)	x86	513 MB	
Emulator	Nexus 5 Pie		1080 x 1920: xxhdpi	28	Android 9.0 (Google Play)	x86	9.5 GB	
Emulator	Nexus 7 Pie		1200 x 1920: xhdpi	28	Android 9.0 (Google APIs)	x86	513 MB	

This time, start the emulator with the Nexus 10 system image

+ Create Virtual Device...

Design Text

TODO Terminal Build Logcat Profiler Run Event Log

Gradle build finished in 3 s 685 ms (moments ago)

Resource Manager

Project

Gradle

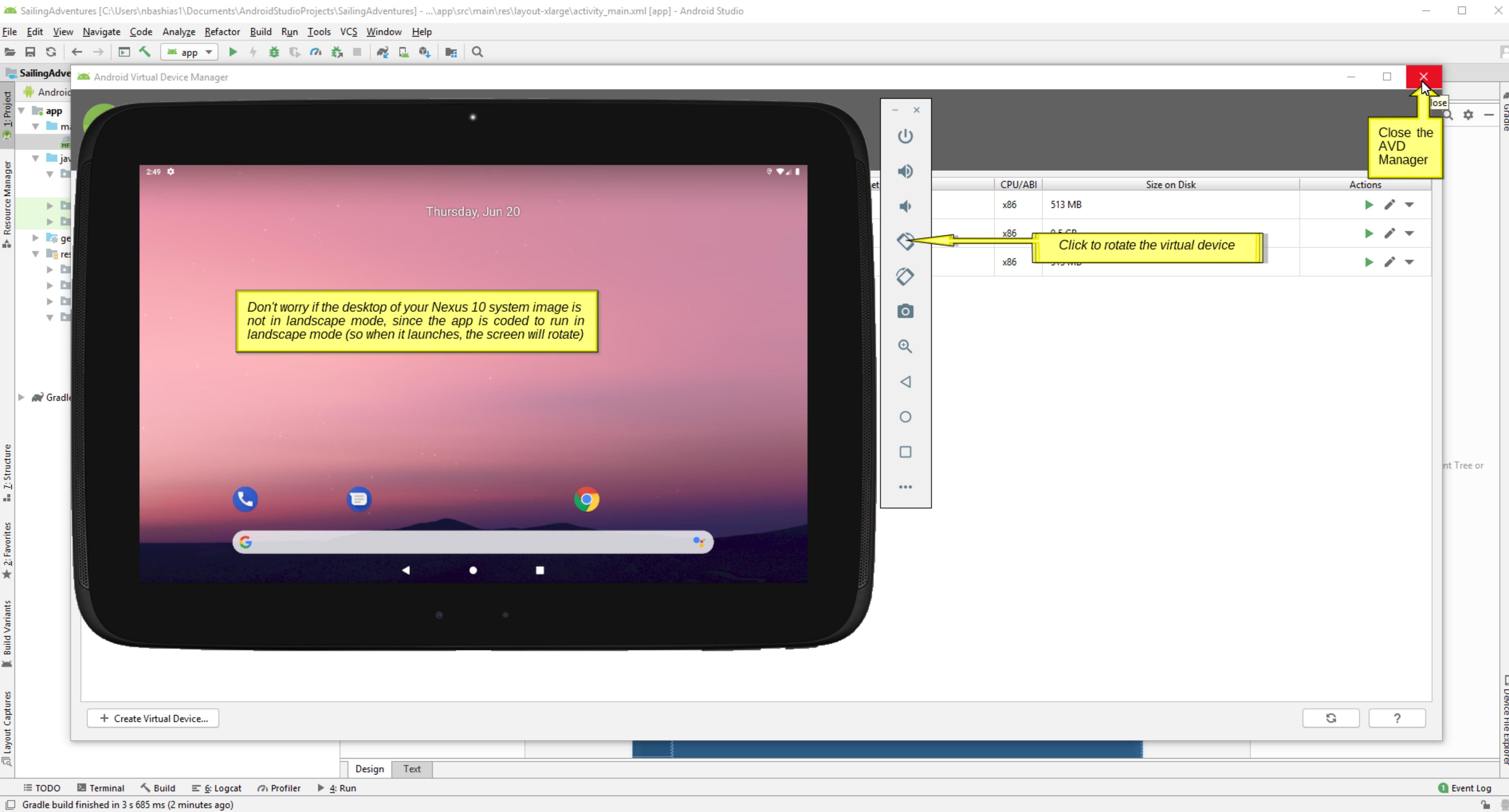
Layout Captures

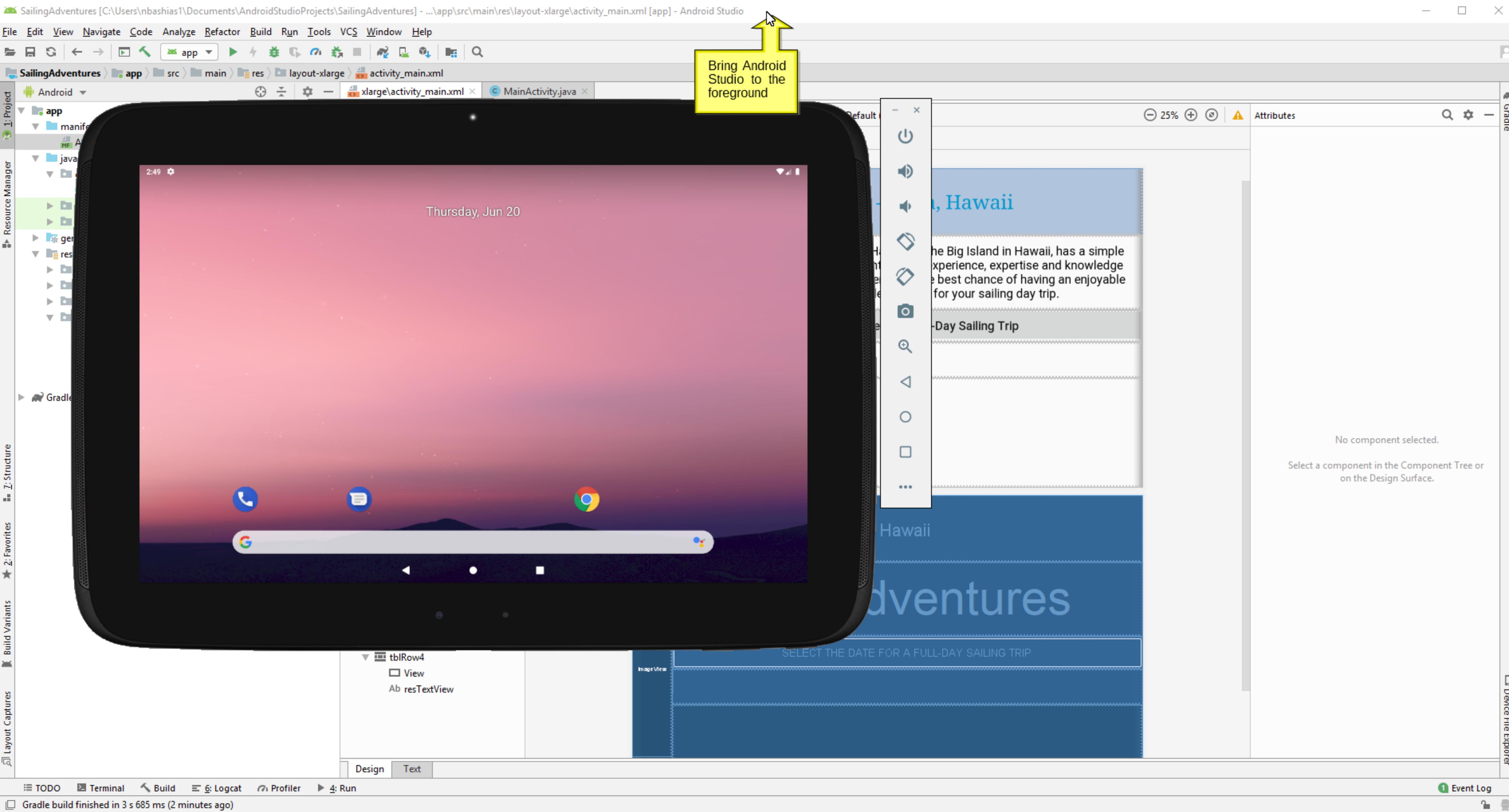
Build Variants

Favorites

Event Tree or

Device File Explorer





SailingAdventures [C:\Users\nbashias1\Documents\AndroidStudioProjects\SailingAdventures] - ...app\src\main\res\layout-xlarge\activity_main.xml [app] - Android Studio

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help

Run the app

Run 'app' (Shift+F10)

SailingAdventures > app > src > activity_main.xml

Android

1: Project

Resource Manager

Java

edu.udayton.sailingadventures

MainActivity

edu.udayton.sailingadventures (androidTest)

edu.udayton.sailingadventures (test)

generatedJava

res

drawable

layout

mipmap

values

colors.xml

dimens.xml

strings.xml

styles.xml

Gradle Scripts

2: Structure

3: Favorites

Build Variants

Layout Captures

Design Text

Palette

Common

Text

Buttons

Widgets

Layouts

Containers

Google

Legacy

Nexus_10_Pie 28 AppTheme Default (en-us) 25% Attributes

Sailing Adventures - Kona, Hawaii

Sailing Adventures located at Kona Harbor on the Big Island in Hawaii, has a simple sailing philosophy - We Create Adventure! Our experience, expertise and knowledge of the high seas provide our customers with the best chance of having an enjoyable and productive sailing adventure. Select a date for your sailing day trip.

Select the Date for a Full-Day Sailing Trip

No component selected.

Select a component in the Component Tree or on the Design Surface.

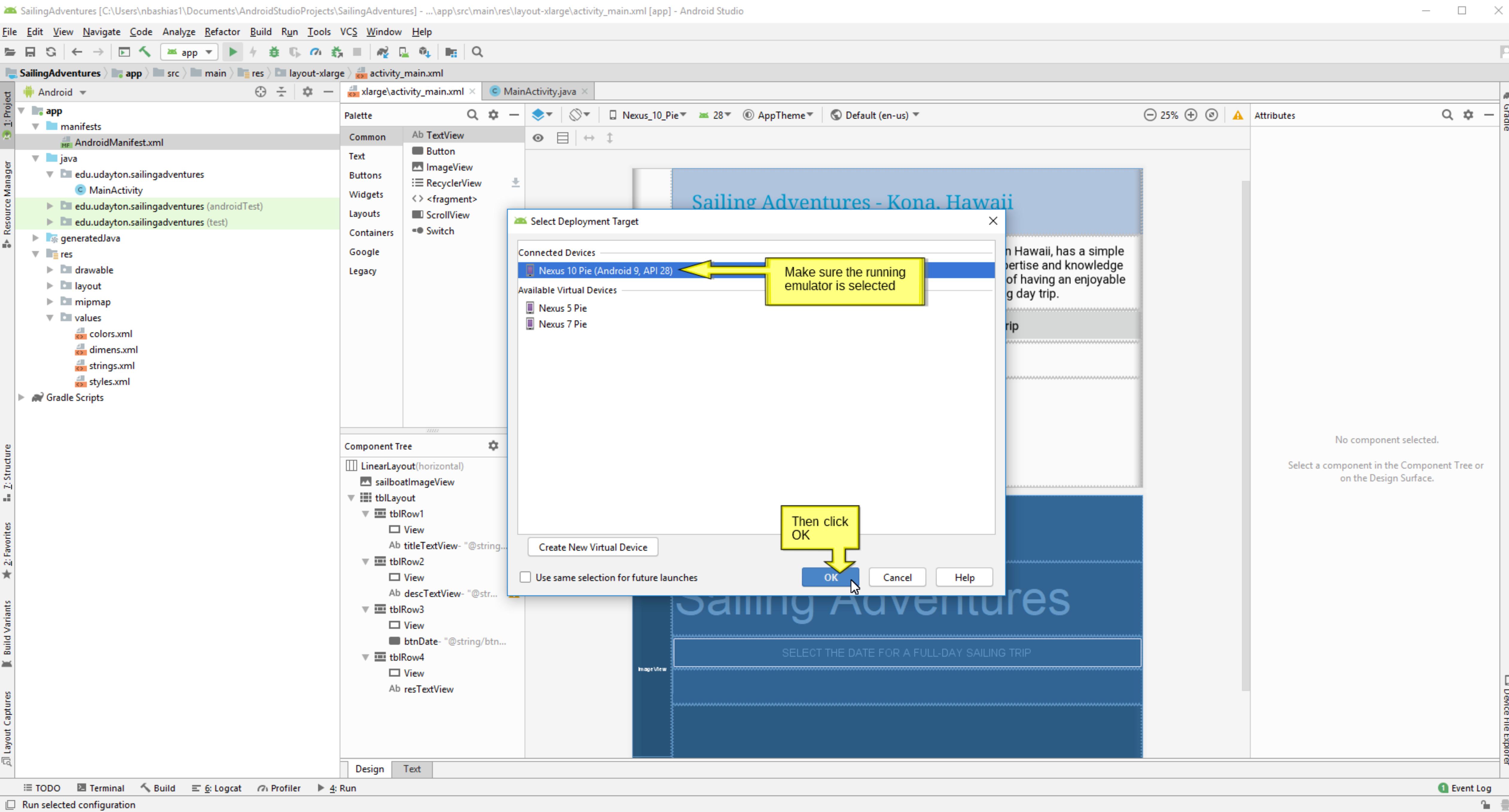
Sailing Adventures - Kona, Hawaii

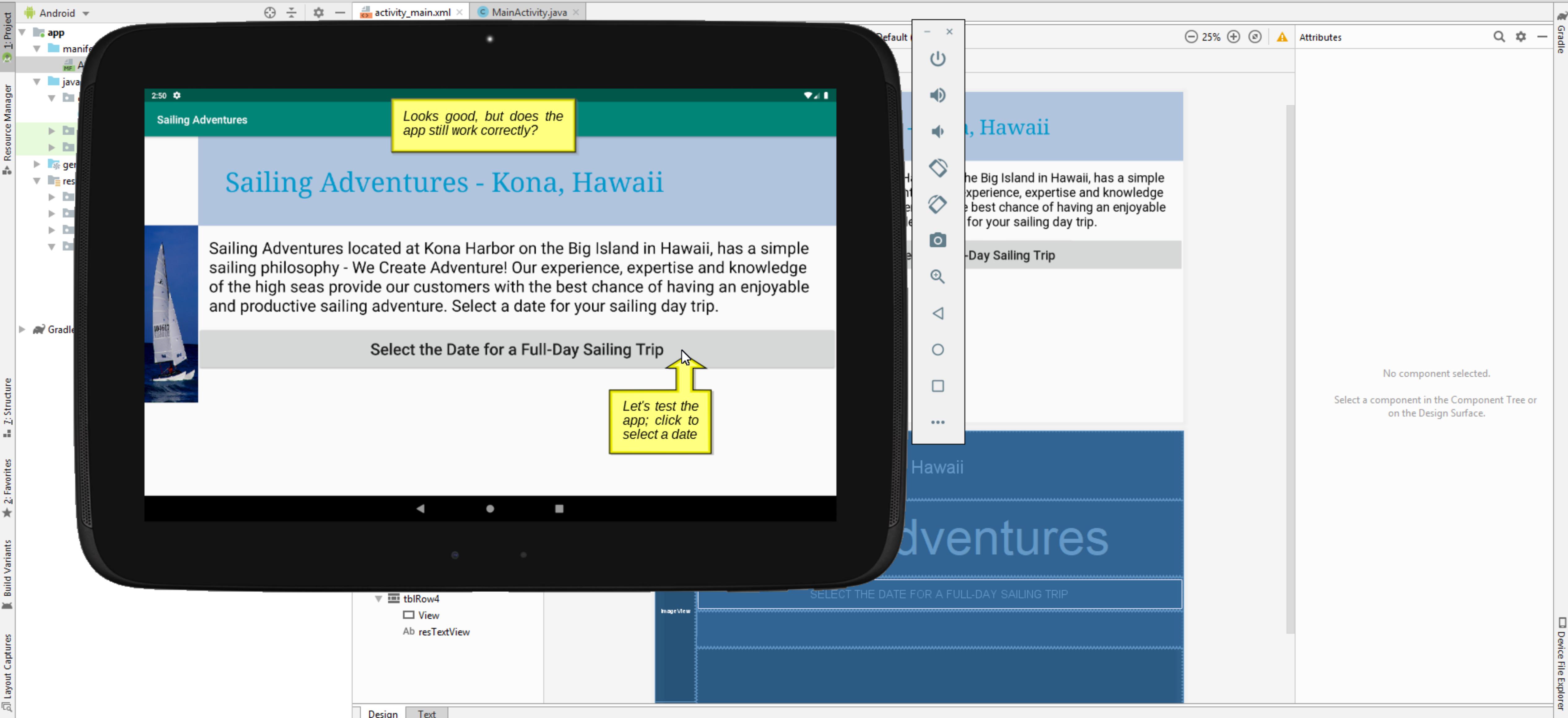
Sailing Adventures

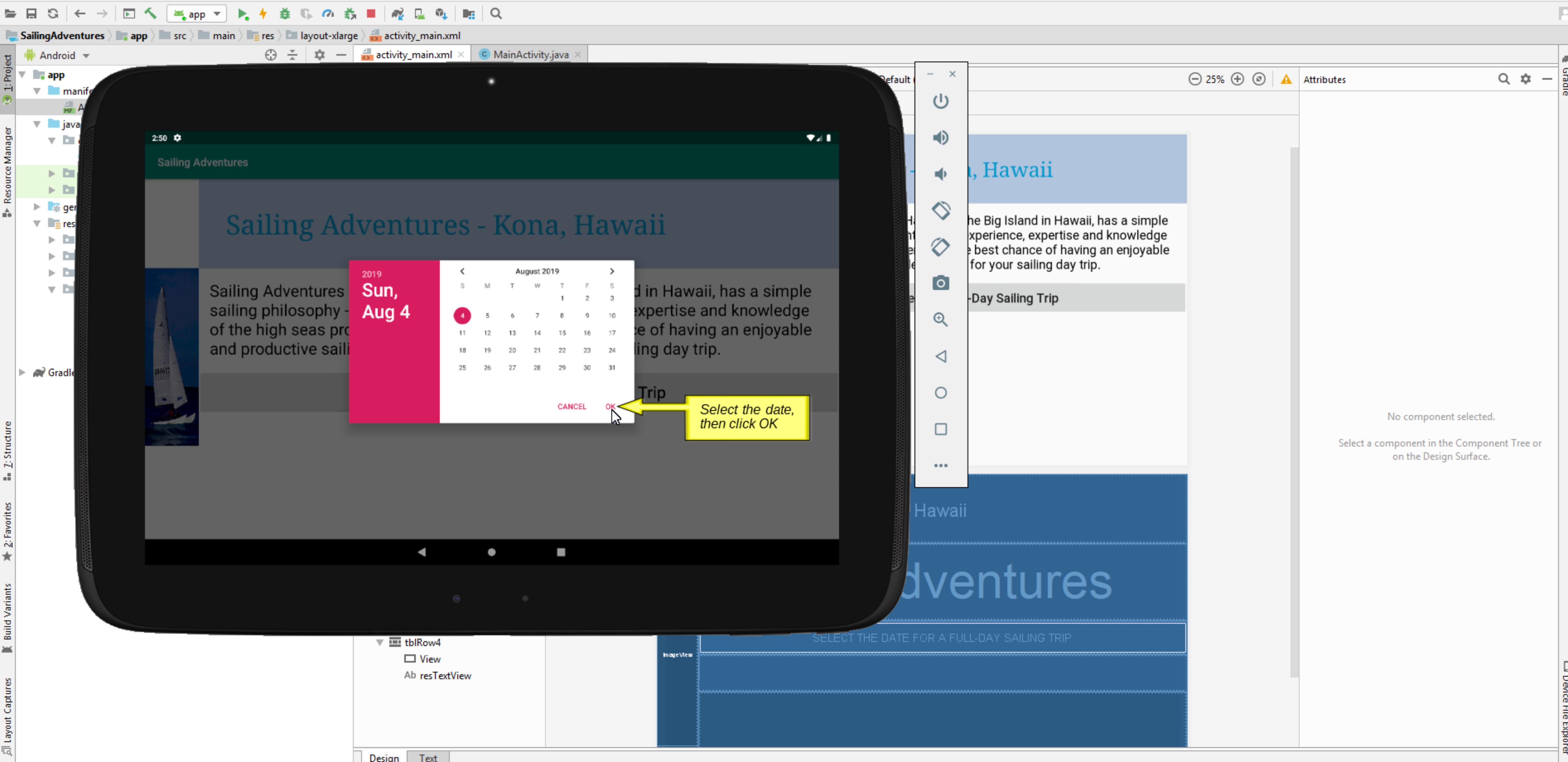
SELECT THE DATE FOR A FULL-DAY SAILING TRIP

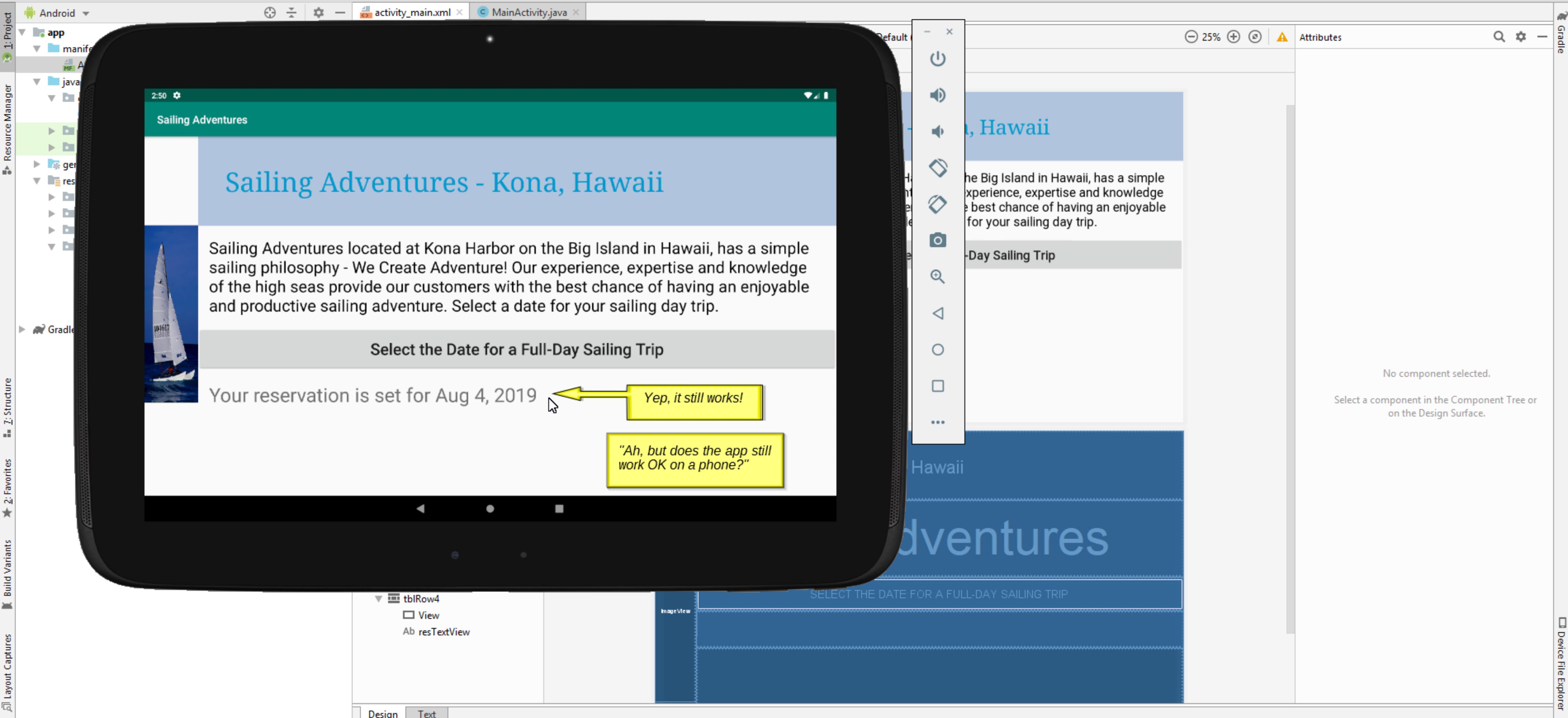
Device File Explorer

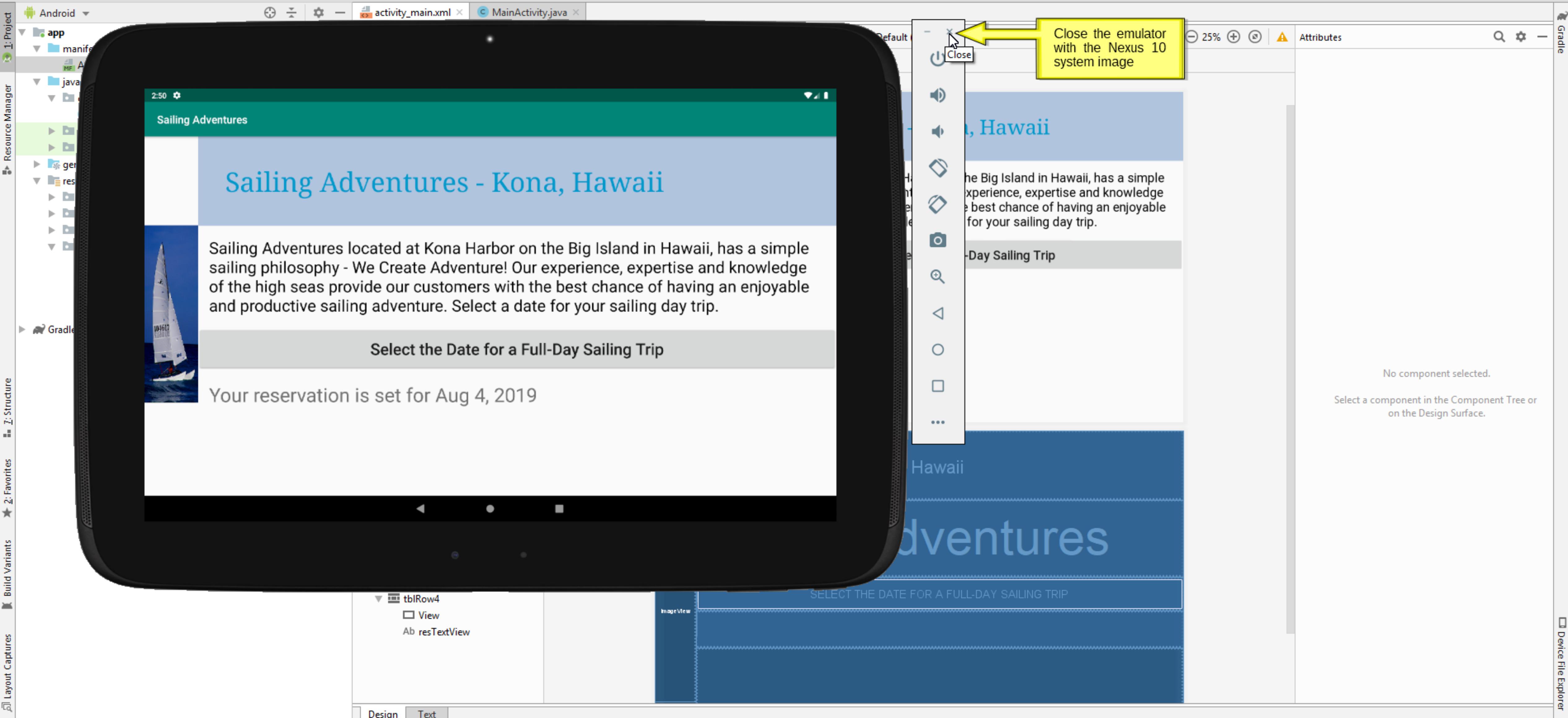
Event Log

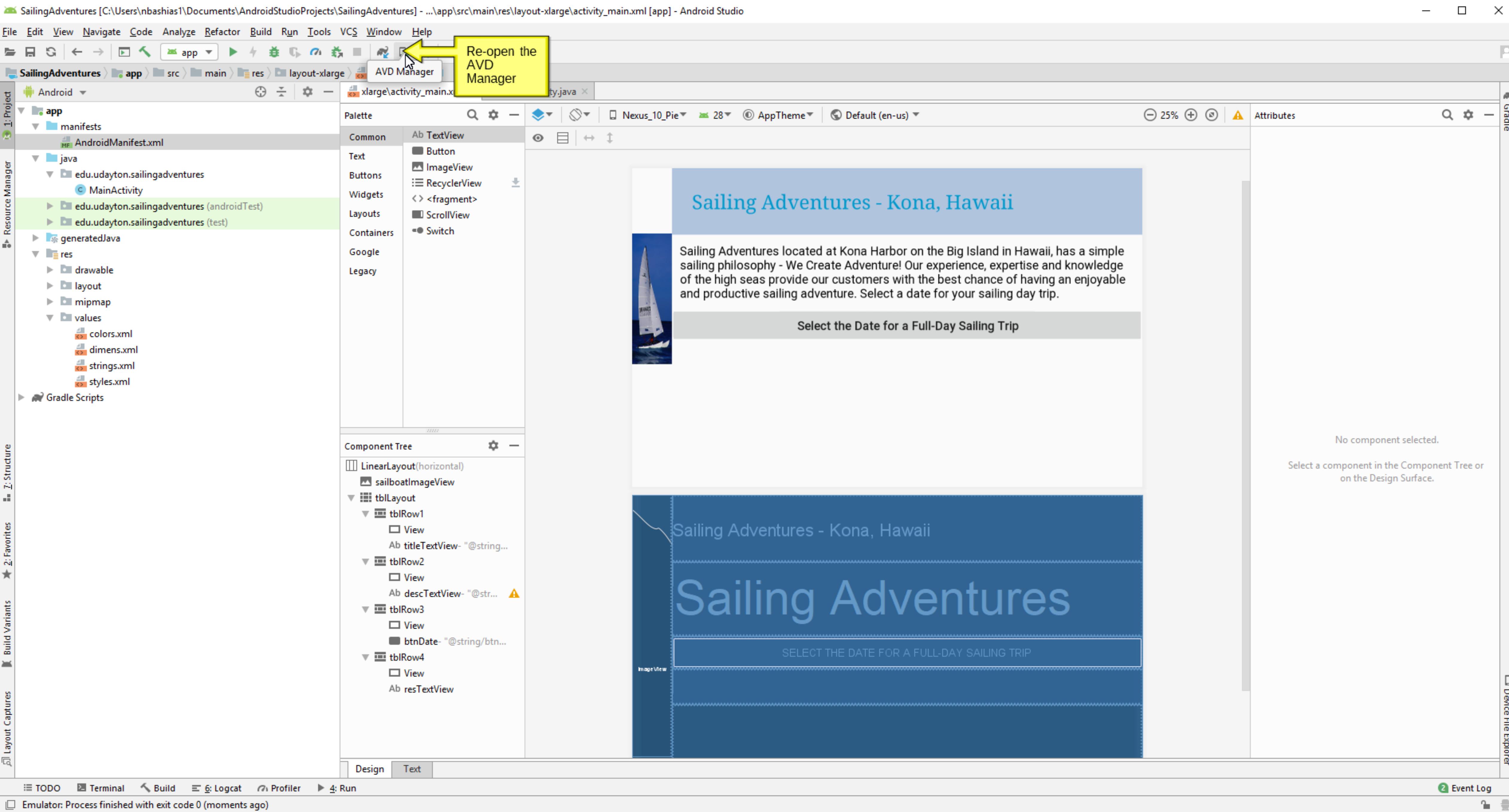












SailingAdventures [C:\Users\nbashias1\Documents\AndroidStudioProjects\SailingAdventures] - ...app\src\main\res\layout-xlarge\activity_main.xml [app] - Android Studio

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help

Android Virtual Device Manager

Your Virtual Devices

Android Studio

Resource Manager

Gradle

Layout Captures

Build Variants

Favorites

Design Text

TODO Terminal Build Logcat Profiler Run

Emulator: Process finished with exit code 0 (moments ago)

Event Log

Type Name Play Store Resolution API Target CPU/ABI Size on Disk Actions

Nexus 10 Pie 2560 x 1600: xhdpi 28 Android 9.0 (Google APIs) x86 3.0 GB

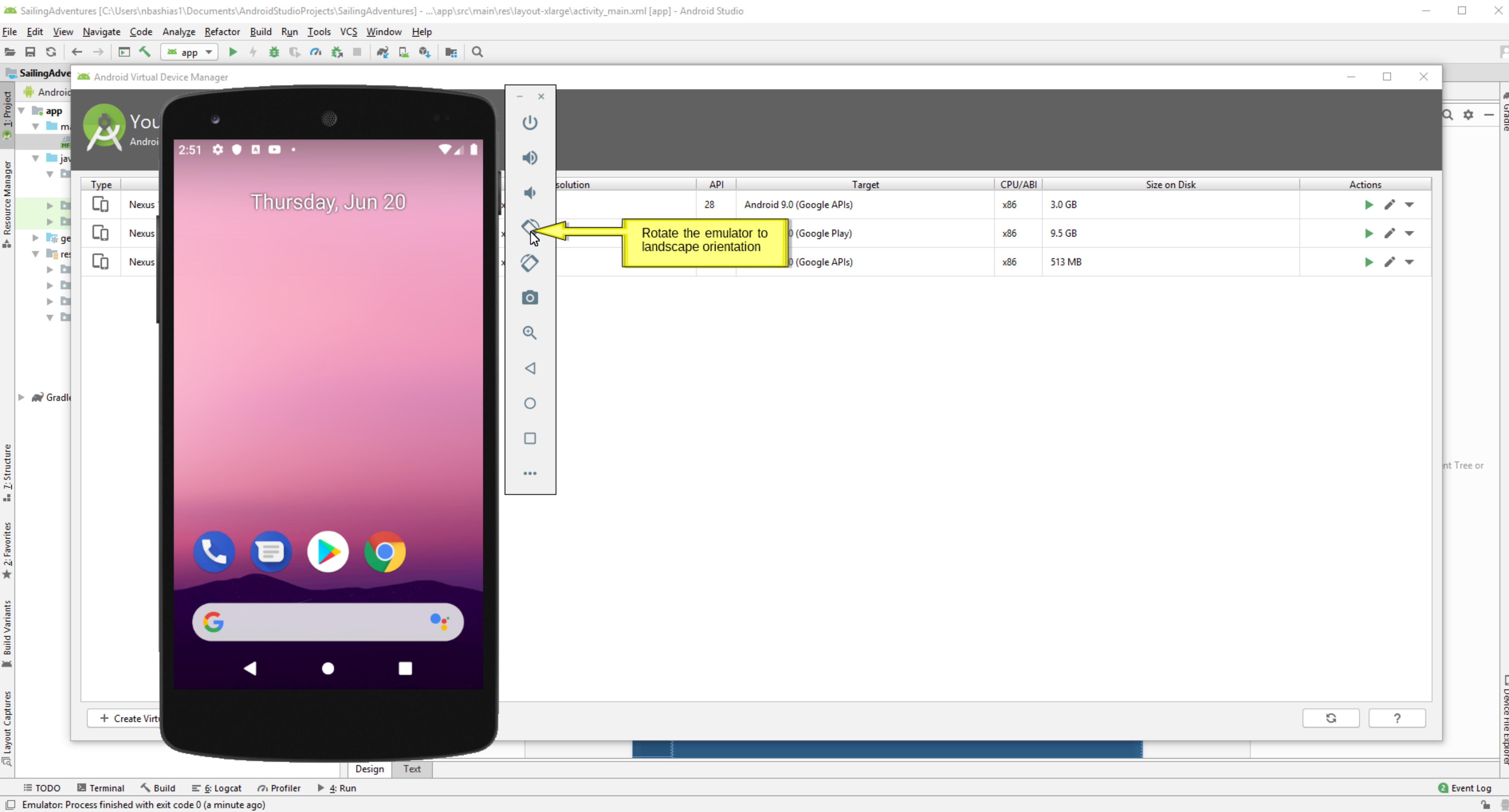
Nexus 5 Pie 1080 x 1920: xxhdpi 28 Android 9.0 (Google Play) x86 9.5 GB

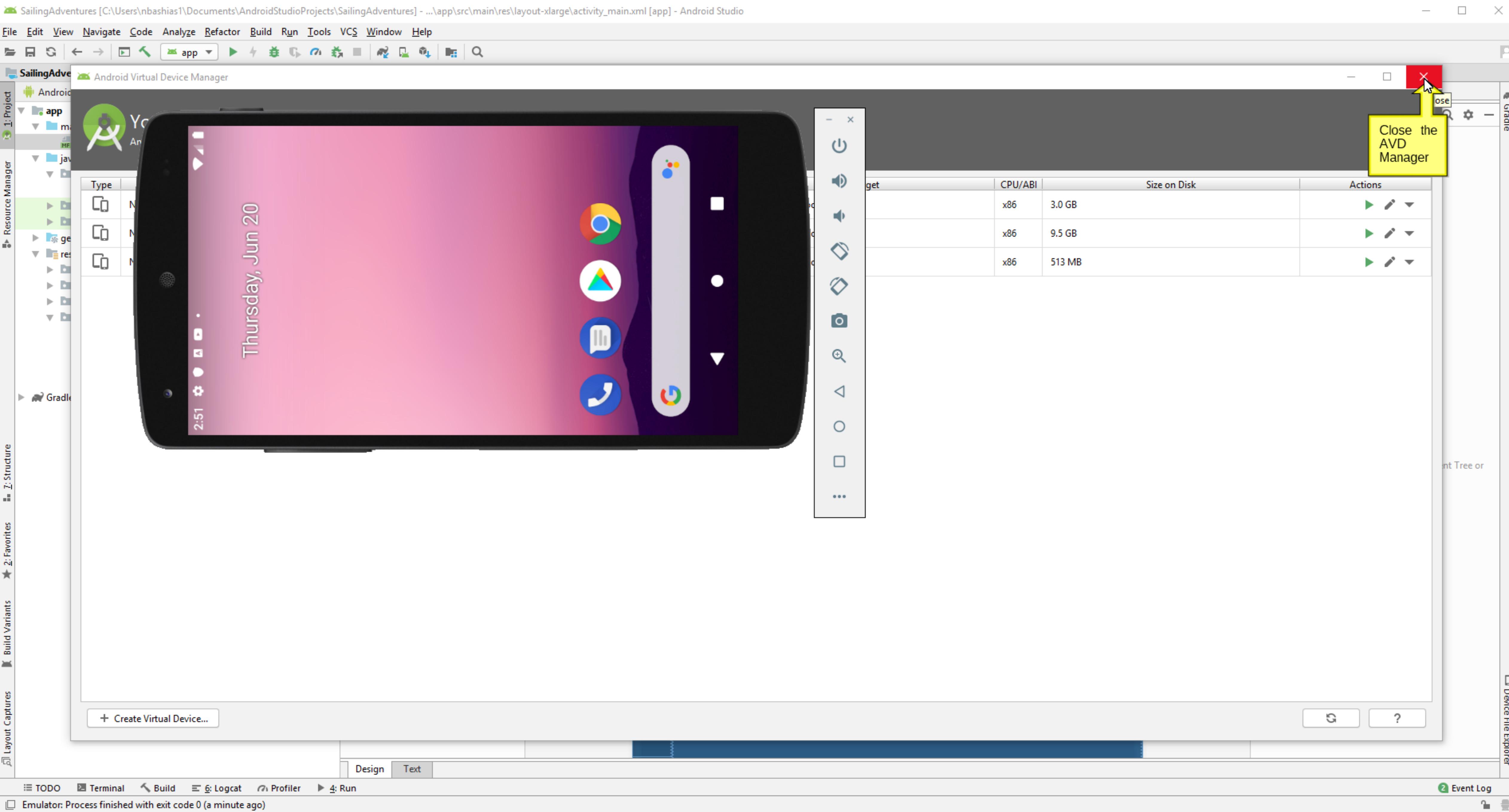
Nexus 7 Pie 1200 x 1920: xhdpi 28 Android 9.0 (Google APIs) x86 513 MB

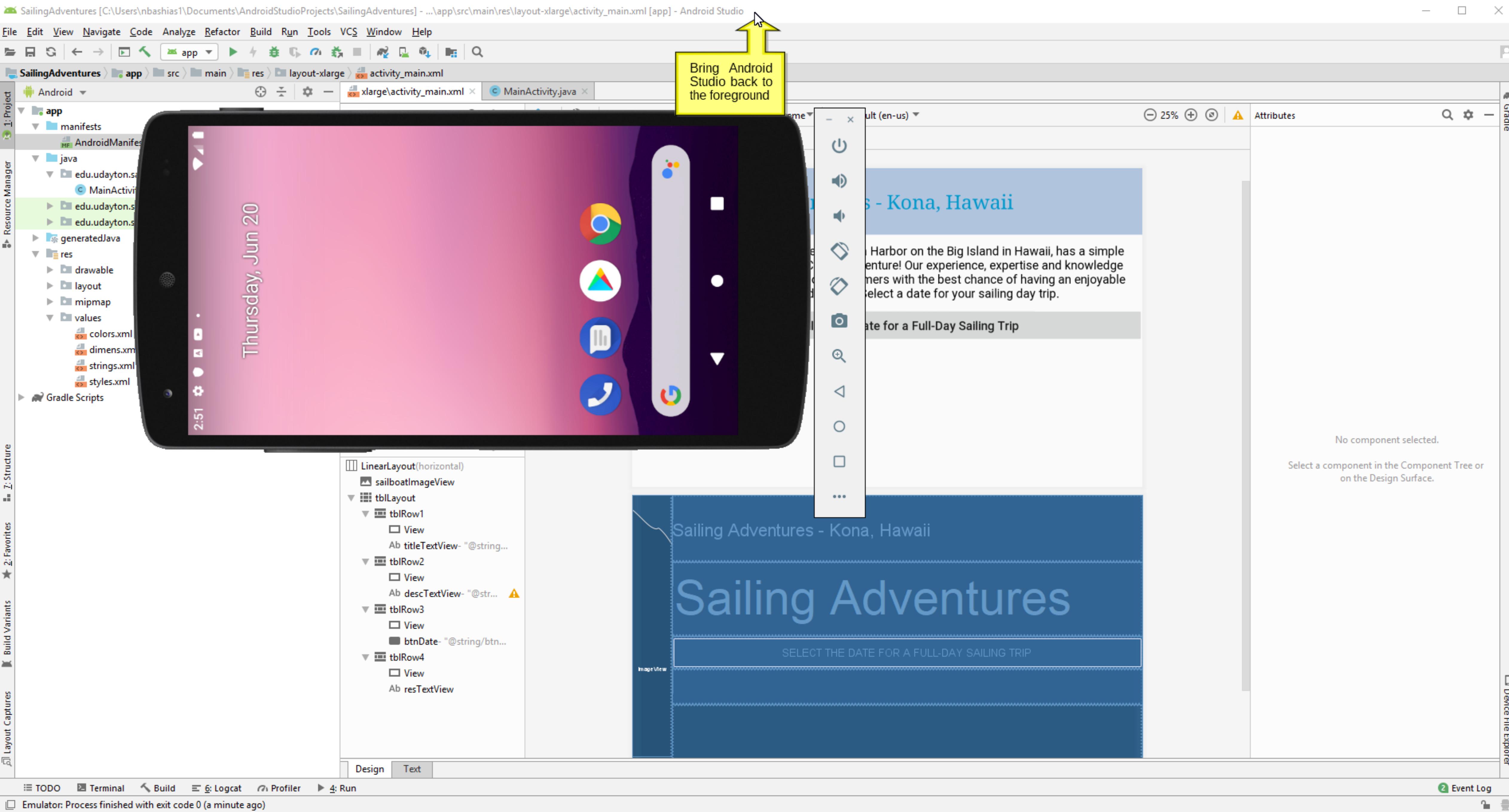
+ Create Virtual Device... ?

This time, launch the emulator with the Nexus 5 system image

Type	Name	Play Store	Resolution	API	Target	CPU/ABI	Size on Disk	Actions
Tablet	Nexus 10 Pie		2560 x 1600: xhdpi	28	Android 9.0 (Google APIs)	x86	3.0 GB	
Tablet	Nexus 5 Pie		1080 x 1920: xxhdpi	28	Android 9.0 (Google Play)	x86	9.5 GB	
Tablet	Nexus 7 Pie		1200 x 1920: xhdpi	28	Android 9.0 (Google APIs)	x86	513 MB	







SailingAdventures [C:\Users\nbashias1\Documents\AndroidStudioProjects\SailingAdventures] - ...app\src\main\res\layout-xlarge\activity_main.xml [app] - Android Studio

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help

Run the app again

Run 'app' (Shift+F10)

Android

SailingAdventures > app > src > layout-xlarge > activity_main.xml

1:Project

Resource Manager

Java

Manifests

AndroidManifest.xml

java

edu.udayton.sailingadventures

MainActivity

edu.udayton.sailingadventures (androidTest)

edu.udayton.sailingadventures (test)

generatedJava

res

drawable

layout

mipmap

values

colors.xml

dimens.xml

strings.xml

styles.xml

Gradle Scripts

2:Structure

3:Favorites

Build Variants

Layout Captures

Design Text

Nexus_10_Pie 28 AppTheme Default (en-us) 25% Attributes

Palette

Common

Text

Buttons

Widgets

Layouts

Containers

Google

Legacy

Ab TextView

Button

ImageView

RecyclerView

<fragment>

ScrollView

Switch

Sailing Adventures - Kona, Hawaii

Sailing Adventures located at Kona Harbor on the Big Island in Hawaii, has a simple sailing philosophy - We Create Adventure! Our experience, expertise and knowledge of the high seas provide our customers with the best chance of having an enjoyable and productive sailing adventure. Select a date for your sailing day trip.

Select the Date for a Full-Day Sailing Trip

No component selected.

Select a component in the Component Tree or on the Design Surface.

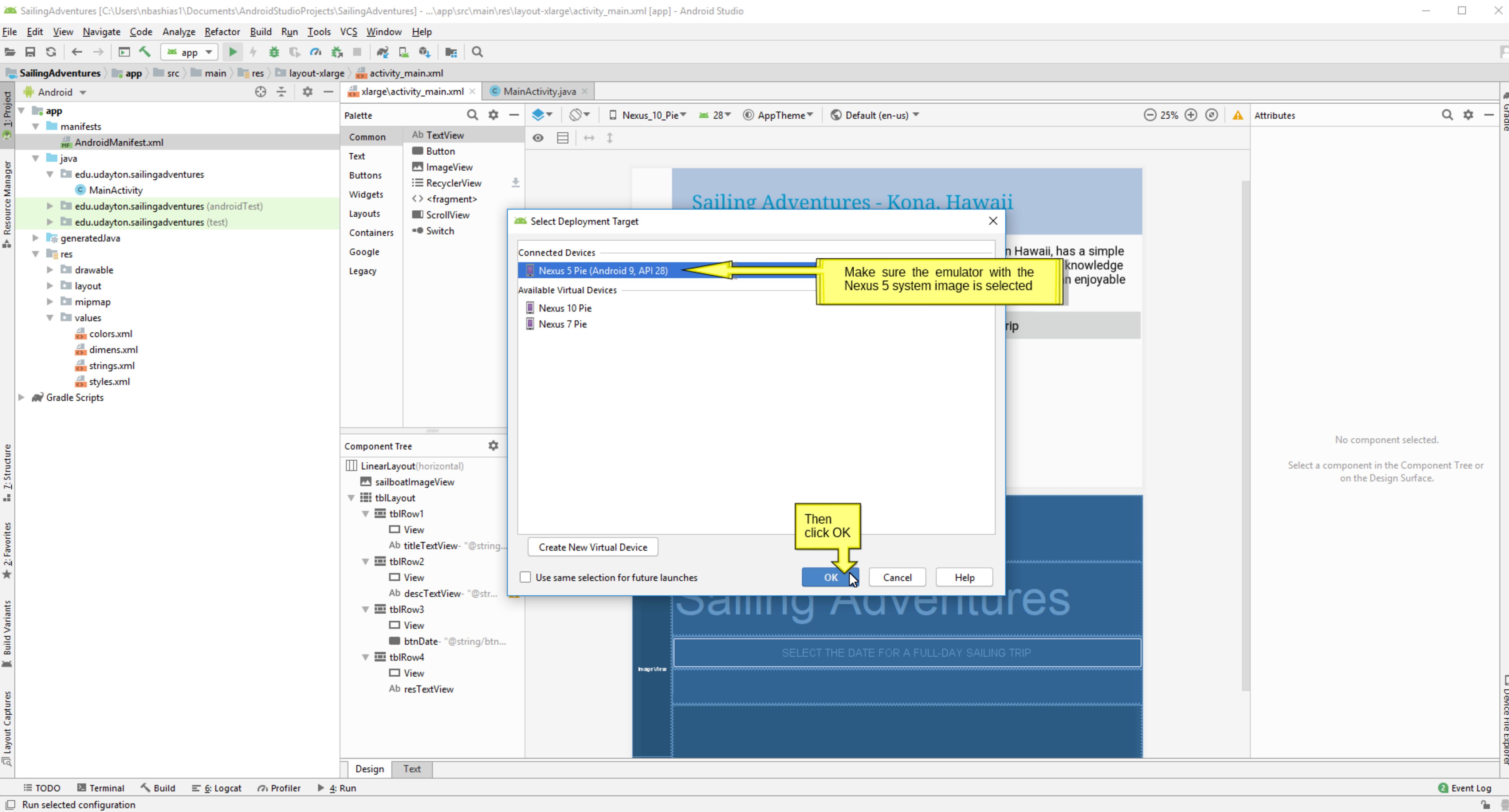
Sailing Adventures - Kona, Hawaii

Sailing Adventures

SELECT THE DATE FOR A FULL-DAY SAILING TRIP

Event Log

Run selected configuration



SailingAdventures [C:\Users\nbashias1\Documents\AndroidStudioProjects\SailingAdventures] - ...app\src\main\res\layout-xlarge\activity_main.xml [app] - Android Studio

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help

SailingAdventures app src main res layout-xlarge activity_main.xml MainActivity.java

1:Project SailingAdventures app manifests AndroidManifest.xml java edu.udayton.sailing SailingAdventures.java MainActivity.java generatedJava res drawable layout mipmap values colors.xml dimens.xml strings.xml styles.xml Gradle Scripts

Resource Manager

2:Structure

3:Favorites

Build Variants

Layout Captures

Design Text

25% Attributes

No component selected.

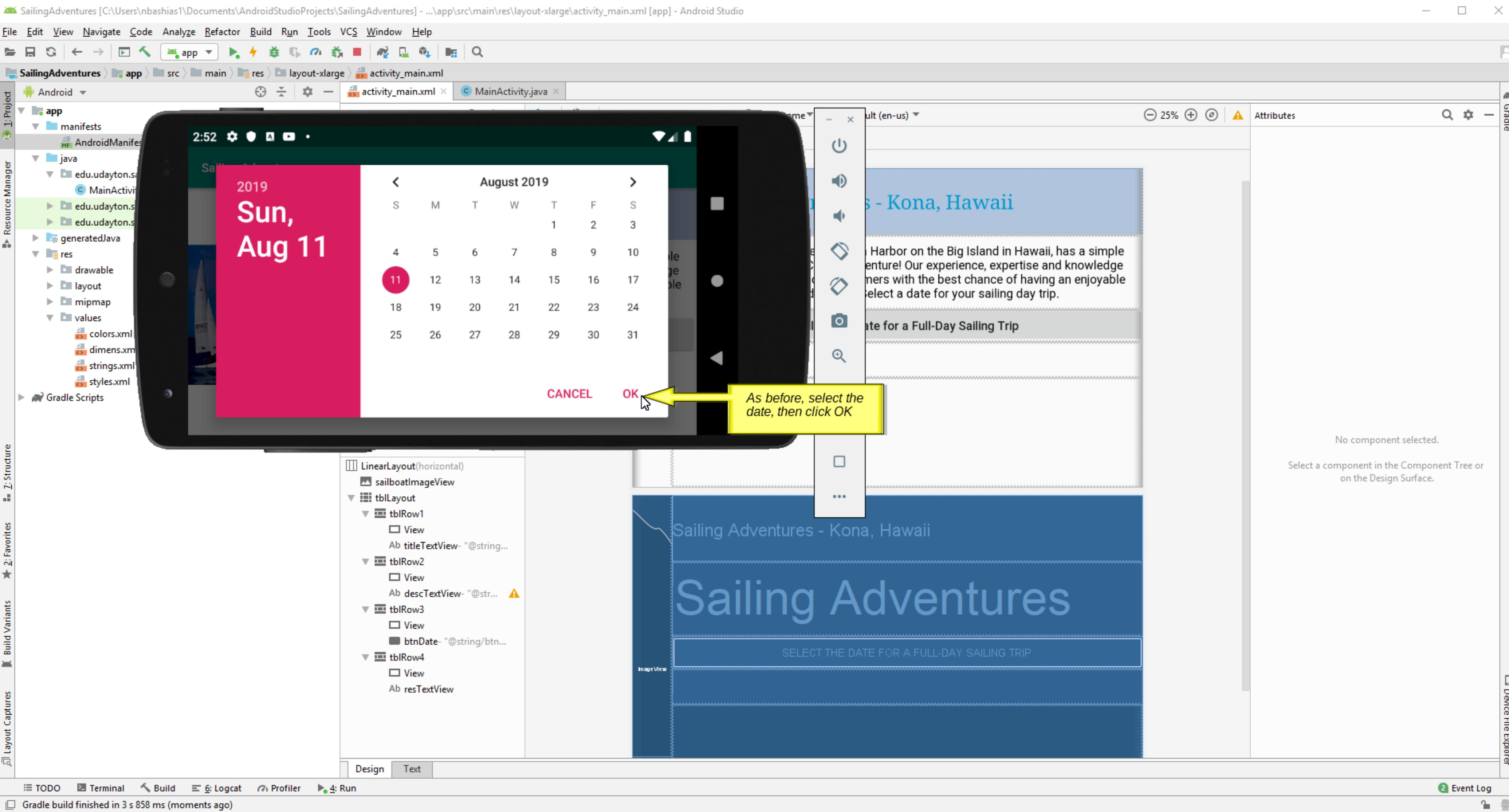
Select a component in the Component Tree or on the Design Surface.

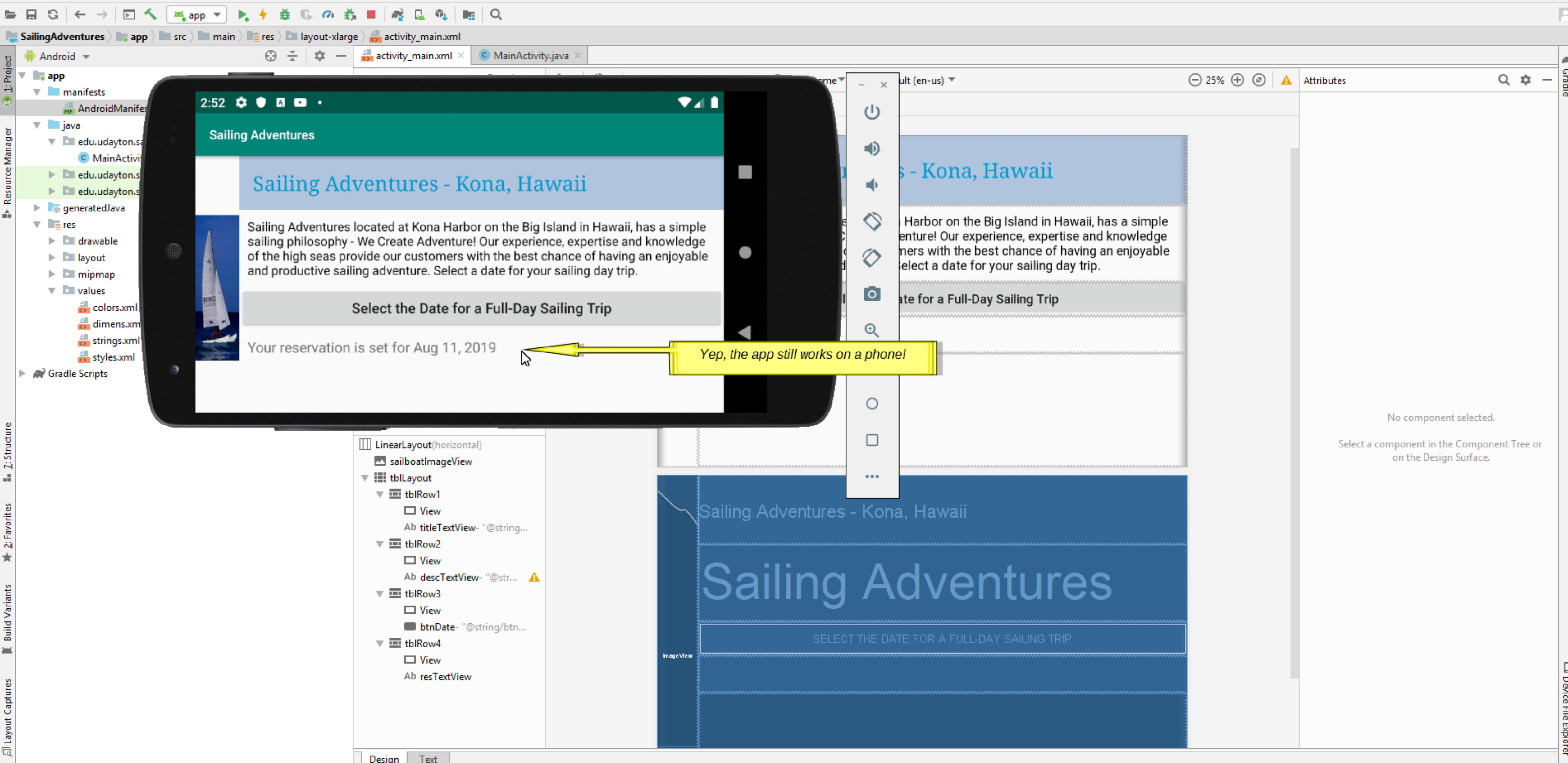
Device File Explorer

2 Event Log

Gradle build finished in 3 s 858 ms (moments ago)

The screenshot shows the Android Studio interface with the project 'SailingAdventures' open. The main area displays the 'activity_main.xml' layout in the 'Design' tab. The layout consists of a large title 'Sailing Adventures' at the top, followed by a section for 'Kona, Hawaii'. A central button labeled 'Select the Date for a Full-Day Sailing Trip' is highlighted with a yellow callout bubble containing the text 'Click again to select a date'. To the left of the phone preview, the 'Component Tree' shows the layout structure: a Linear Layout containing a sailboat image, a table layout with four rows, and a bottom section with a date selection button and a text view. The right side of the screen shows the 'Preview' and 'Attributes' panes. The preview shows a smartphone displaying the app's landing page with the same UI elements. A yellow callout bubble also appears in the preview area with the same text as the one in the component tree. The bottom status bar indicates a successful Gradle build.





SailingAdventures [C:\Users\nbashias1\Documents\AndroidStudioProjects\SailingAdventures] - ...app\src\main\res\layout-xlarge\activity_main.xml [app] - Android Studio

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help

SailingAdventures app src main res layout-xlarge activity_main.xml MainActivity.java

1:Project SailingAdventures app manifests AndroidManifest.xml java edu.udayton.sailing SailingAdventures.java generatedJava res drawable layout mipmap values colors.xml dimens.xml strings.xml styles.xml Gradle Scripts

Resource Manager

2:Structure

Layout Captures Build Variants Favorites

Design Text

TODO Terminal Build Logcat Profiler Run

Gradle build finished in 3 s 858 ms (a minute ago)

Event Log

Sailing Adventures

2:52 Sailing Adventures

Sailing Adventures - Kona, Hawaii

Sailing Adventures located at Kona Harbor on the Big Island in Hawaii, has a simple sailing philosophy - We Create Adventure! Our experience, expertise and knowledge of the high seas provide our customers with the best chance of having an enjoyable and productive sailing adventure. Select a date for your sailing day trip.

Select the Date for a Full-Day Sailing Trip

Your reservation is set for Aug 11, 2019



We can again close the emulator, since we'll be using a different system image in part 5.

No component selected.

Select a component in the Component Tree or on the Design Surface.

Device File Explorer

Component Tree:

- LinearLayout(horizontal)
 - sailboatImageView
 - tblLayout
 - tblRow1
 - View
 - Ab titleTextView- "@string..."
 - tblRow2
 - View
 - Ab descTextView- "@str..."
 - tblRow3
 - View
 - btnDate- "@string/btn..."
 - tblRow4
 - View
 - Ab resTextView

SailingAdventures [C:\Users\nbashias1\Documents\AndroidStudioProjects\SailingAdventures] - ...app\src\main\res\layout-xlarge\activity_main.xml [app] - Android Studio

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help

SailingAdventures app src main res layout-xlarge activity_main.xml

1:Project SailingAdventures

Resource Manager

Java MainActivity.java

Palette

Common Ab TextView
Text Button
Buttons ImageView
Widgets RecyclerView
Layouts <fragment>
Containers ScrollView
Google Switch
Legacy

Nexus_10_Pie 28 AppTheme Default (en-us) 25% Attributes

Sailing Adventures - Kona, Hawaii

Sailing Adventures located at Kona Harbor on the Big Island in Hawaii, has a simple sailing philosophy - We Create Adventure! Our experience, expertise and knowledge of the high seas provide our customers with the best chance of having an enjoyable and productive sailing adventure. Select a date for your sailing day trip.

Select the Date for a Full-Day Sailing Trip

This concludes Part 4 of this lesson.
In Part 5 of lesson 6, we add yet another layout for a "large" device (a Nexus 7 tablet) and see responsive design in action again!

No component selected.

Select a component in the Component Tree or on the Design Surface.

Component Tree

LinearLayout(horizontal)
 sailboatImageView
tblLayout
 tblRow1
 View
 Ab titleTextView- "@string..."
 tblRow2
 View
 Ab descTextView- "@str..."
 tblRow3
 View
 btnDate- "@string/btn..."
 tblRow4
 View
 Ab resTextView

Sailing Adventures - Kona, Hawaii

Sailing Adventures

SELECT THE DATE FOR A FULL-DAY SAILING TRIP

Design Text

TODO Terminal Build Logcat Profiler Run Event Log

Emulator: Process finished with exit code 0 (moments ago)