

CHAPTER 1

Introduction to Programming and App Inventor

starting out with >>> **APP INVENTOR**
FOR ANDROID



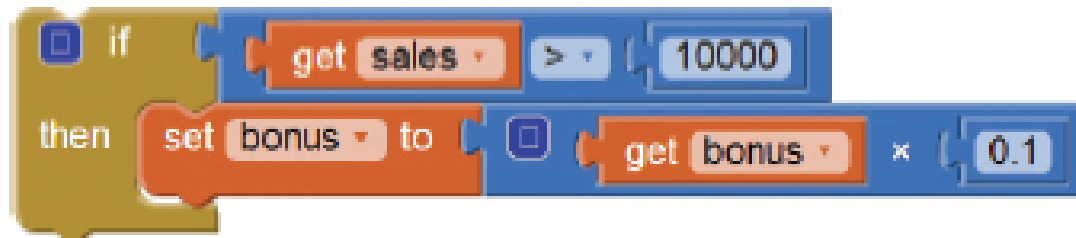
Introducing App Inventor

Block's Editor

A block is a shape that looks like a puzzle piece.

Figure 1-20 A Programming Statement Constructed from Code Blocks

(Source: MIT App Inventor 2)



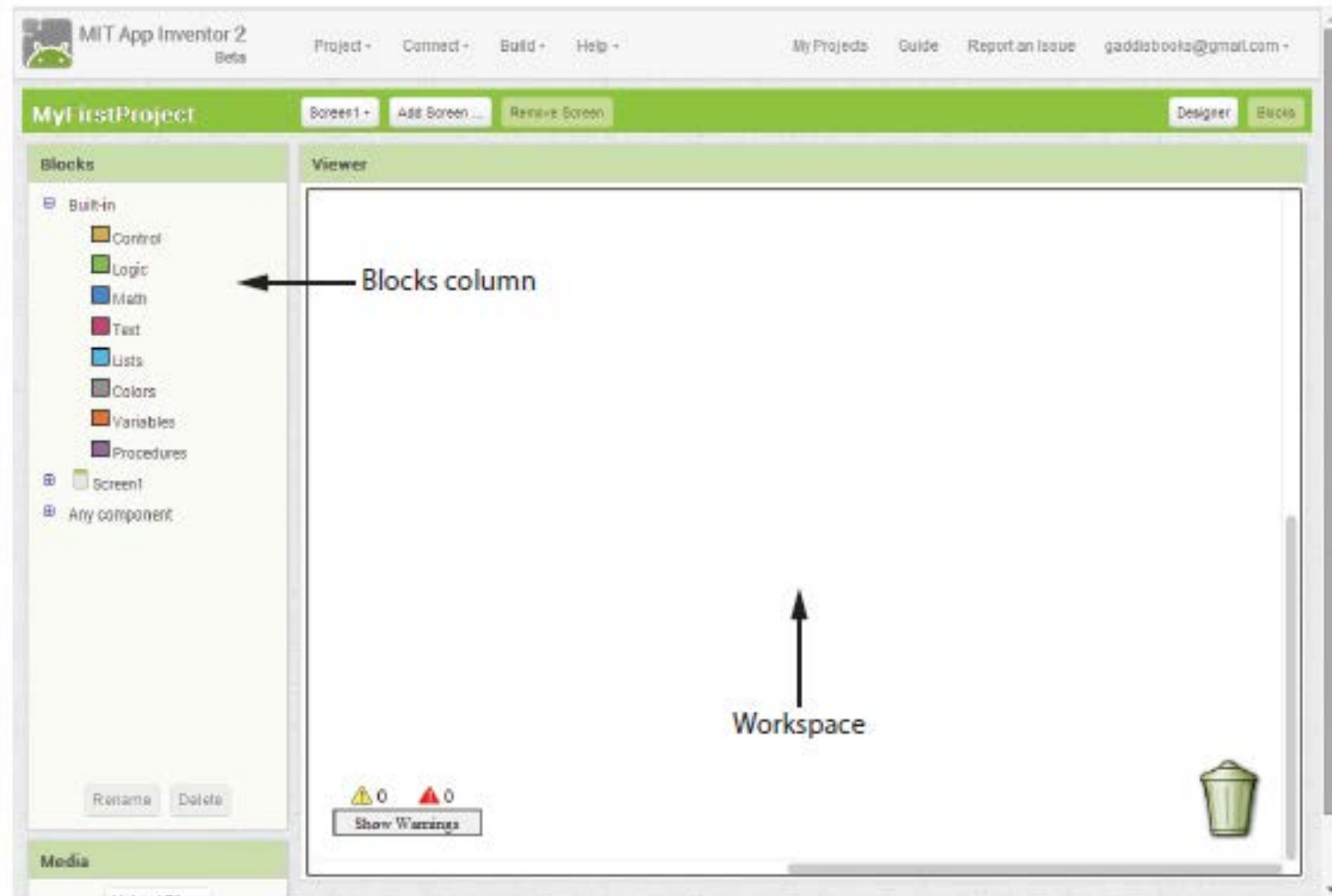
Introducing App Inventor

The blocks column is organized in the following manner:

- ***Built-In*** – The basic blocks that make up the App Inventor language.
- ***Screen1*** – Each time you add a component to Screen1 in the Designer, a set of component blocks are added to the section.
- ***Any component*** – Allows a programmer to work with any component in the app.

Introducing App Inventor

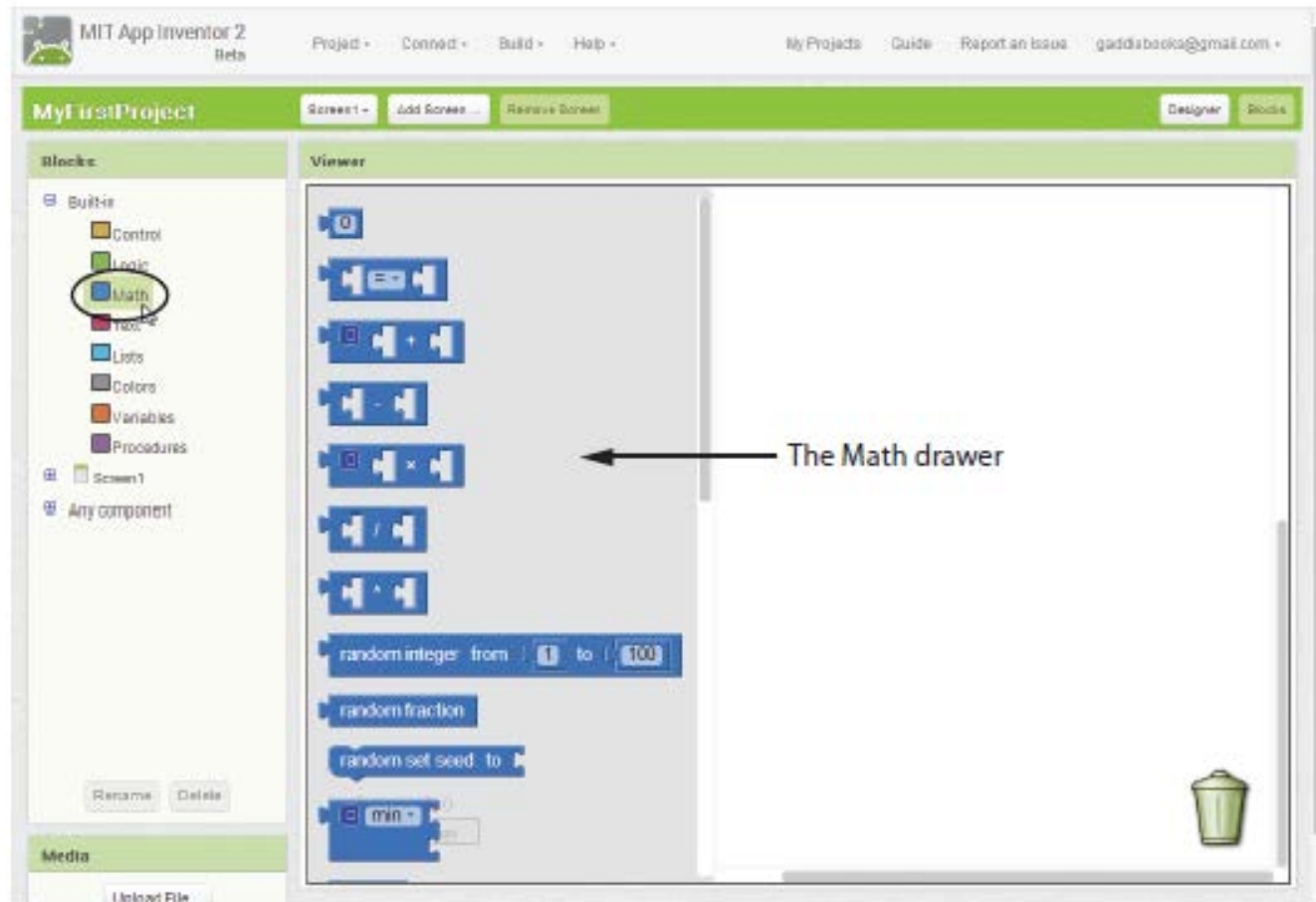
Figure 1-21 The Blocks Editor (Source: MIT App Inventor 2)



Introducing App Inventor

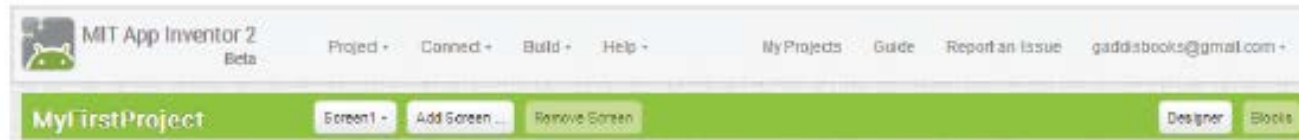
The Built-in blocks (ex. when you click *Math*)

Figure 1-23 The Math Drawer Opened (Source: MIT App Inventor 2)



Introduction

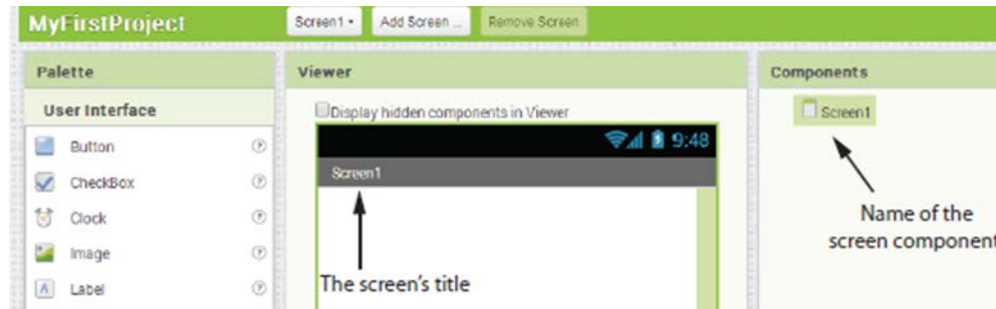
Figure 1-24 Top Part of the App Inventor Screen (Source: MIT App Inventor 2)



The top part of the App Inventor screen shows the following items:

- **Project** – Start, save, and export projects.
- **Connect** – Connect to an Android device or the Android emulator.
- **Build** – Package an app so it can be shared.
- **Help** – Provides access to documentation, tutorials, and the App Inventor forum.

Getting Hands-On with App Inventor



The App's Screen1 Component

- A `Screen` is the most fundamental type of component.
- Each component in the app must have a unique name.
- By default an empty `Screen` component is named `Screen1`.
- You will want to change the default name to something meaningful.

Getting Hands-On with App Inventor

Figure 1-29 The Properties Column, Showing the Selected Component's Properties (Source: MIT App Inventor 2)



Getting Hands-On with App Inventor

A `Label` Component displays text on the app's screen.

Create a `Label` component by dragging it from the Interface section of the Palette onto the app's screen in the Viewer.

Figure 1-33 shows the Components column after a `Label` component has been created.

Figure 1-33 The Name of the Component Shown in the Components Column
(Source: MIT App Inventor 2)

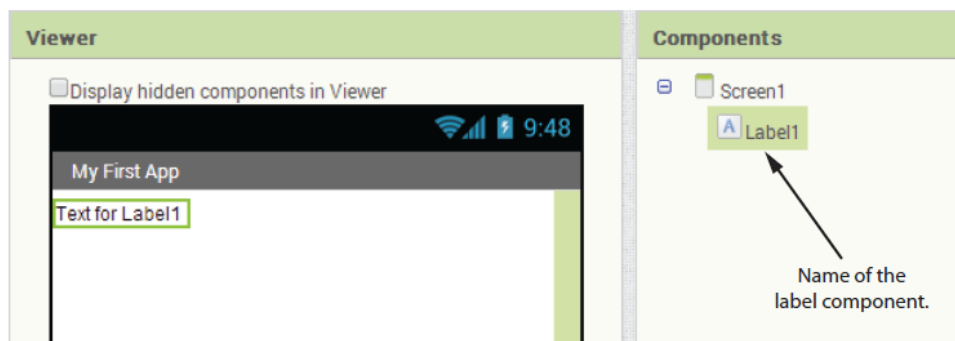
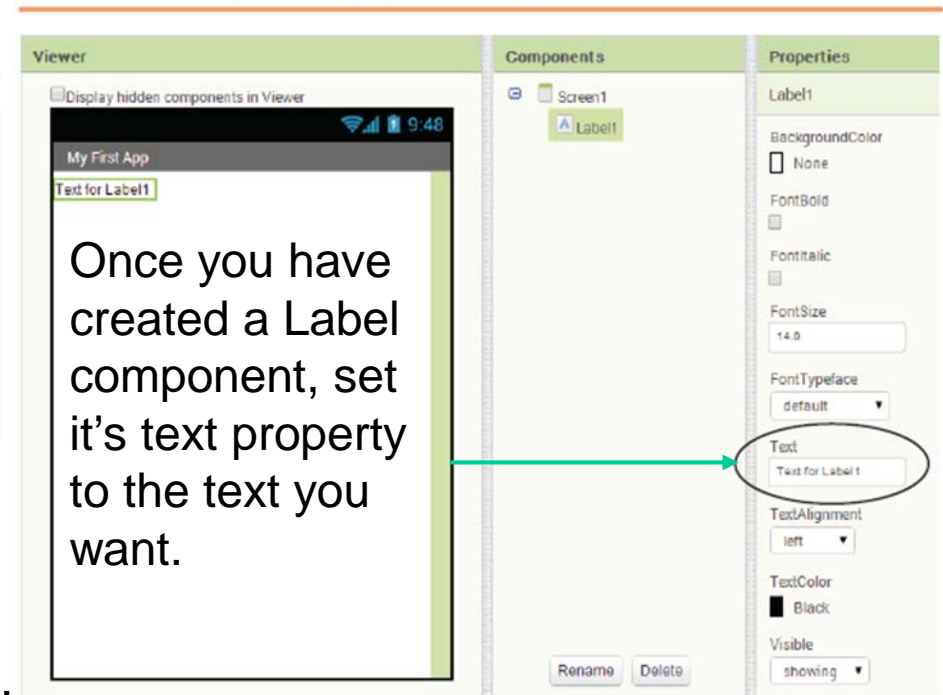


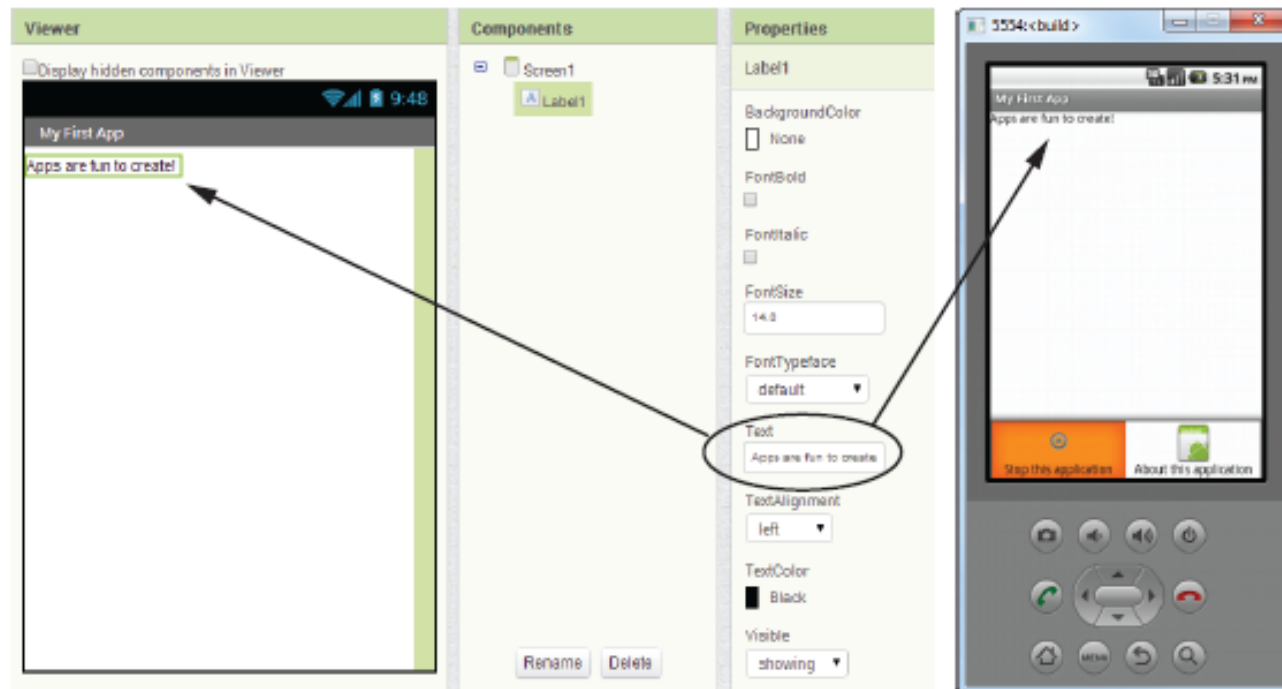
Figure 1-34 A Label Component's Text Property Determines the Text that the Component Displays (Source: MIT App Inventor 2)



Getting Hands-On with App Inventor

- Figure 1-35 Shows an app with the Label component.
- The text property is set to *Apps are fun to create!*

Figure 1-35 A Label Component Displaying the Text *Apps are fun to create!*
(Source: MIT App Inventor 2)



Getting Hands-On with App Inventor

Changing a Component's name

- When you create a component, App Inventor automatically gives it a name.
- Default names are not very descriptive.
- Change the component's name to something that is more meaningful.
- Clicking the name of the component in the Components column to select it.
- Click the *Rename* button at the bottom of the components column.

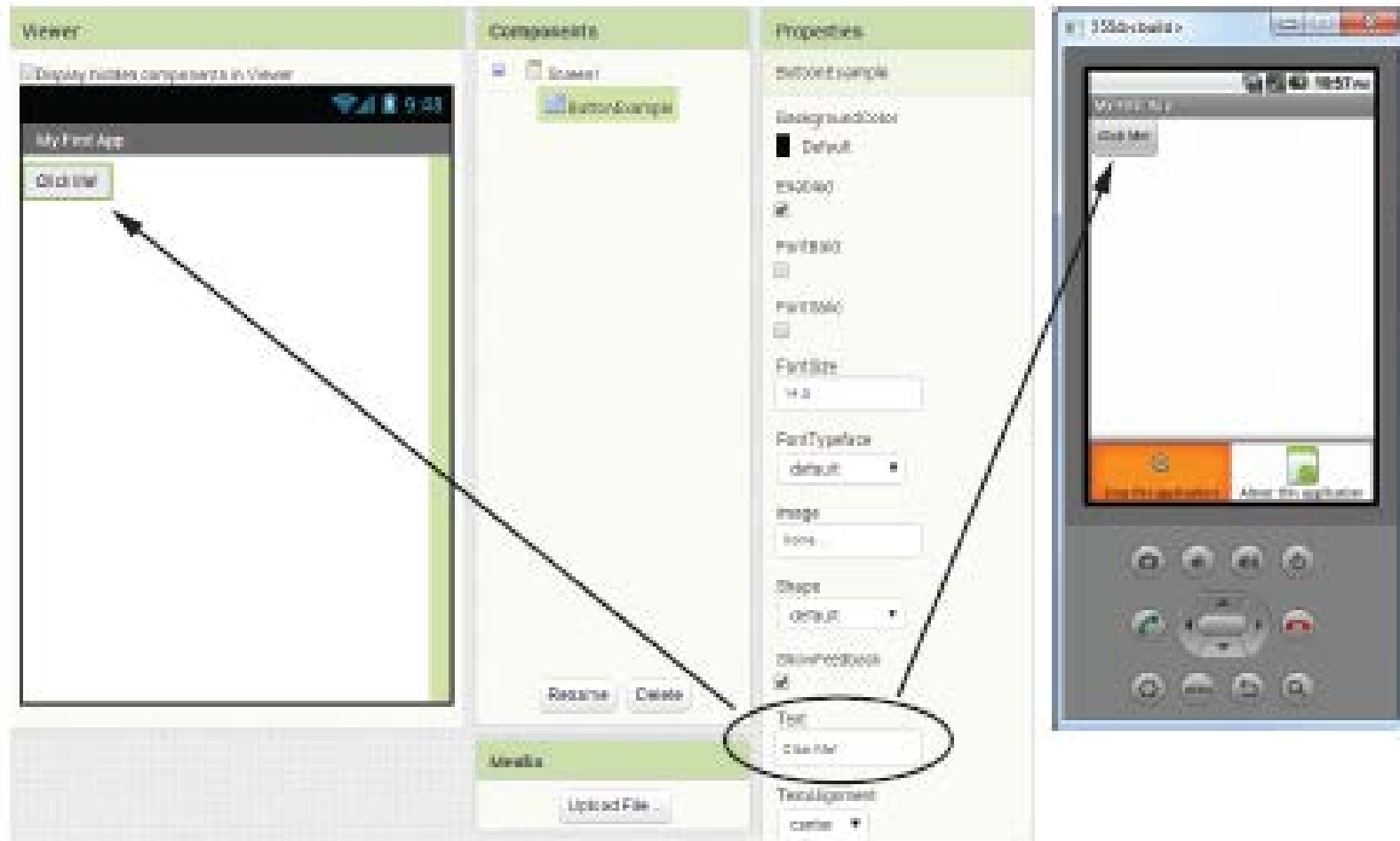
Getting Hands-On with App Inventor

Button Components

- Create a `Button` component by dragging it from the User Interface section of the Pallet to the app's screen in the Viewer.
- Once you create a `Button` component, you should change its name to something more descriptive.
- You should also change the component's `text` property to indicate what the button will do when it is clicked.

Getting Hands-On with App Inventor

Figure 1-41 A Button Component Displaying the Text *Click Me!* (Source: MIT App Inventor 2)

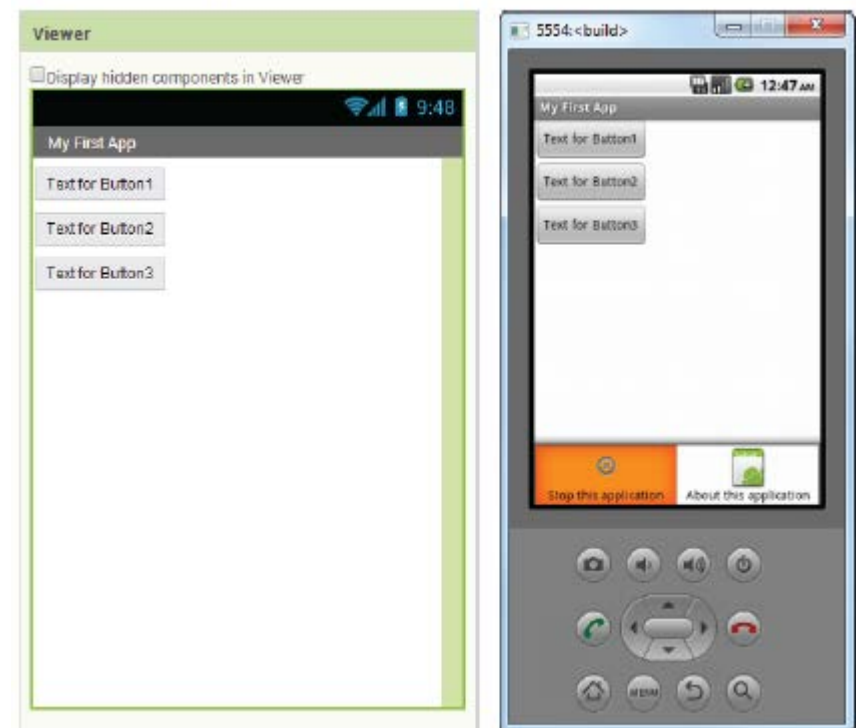


Getting Hands-On with App Inventor

Screen Alignment

- Components are arranged vertically, from the top of the screen to the bottom of the screen.
- By default they are aligned along the left edge of the screen.

Figure 1-42 An App with Three Button Components (Source: MIT App Inventor 2)



Getting Hands-On with App Inventor

- Screen components have an `AlignHorizontal` Property.
- You can set the `AlignHorizontal` property to one of the following values:

Left – along the left edge of the screen.

Center – in the center of the screen.

Right – Along the right edge of the screen.

Figure 1-43 The `AlignHorizontal` Property (Source: MIT App Inventor 2)

