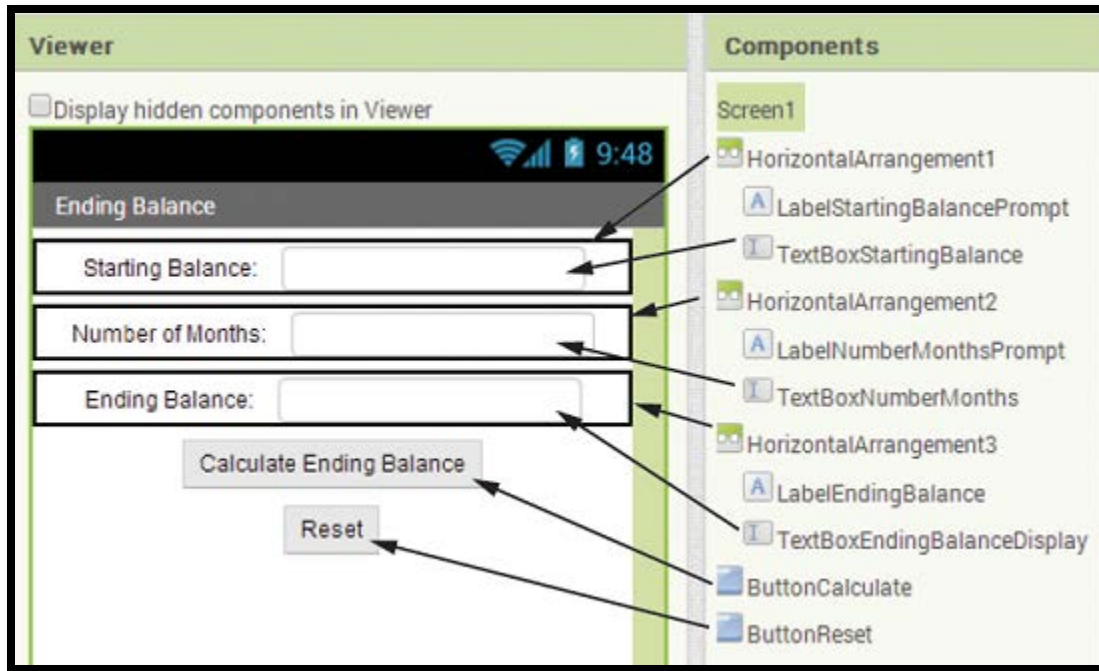


## Ending Balance App

In this tutorial, you will create an app that calculates the ending balance of a savings account. The user will enter the account's starting balance and the number of months that the account will be left to earn interest. When the user clicks a button, the app will calculate the account's balance at the end of the time period. The monthly interest rate is 0.005 (i.e., 0.5%), and the interest is compounded monthly.

The picture below shows the app's screen in the Viewer along with the names of the components.



Step 1: Start a new project named EndingBalance.

Step 2: Set up the app's screen with the components shown in the picture. Refer to the Table for the relevant property settings for each component.

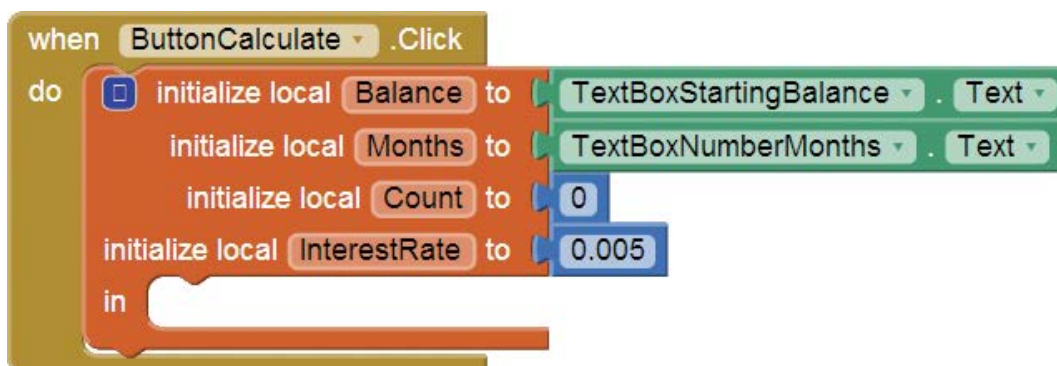
Component Relevant	Property Settings
<b>Screen1</b>	AlignHorizontal = Center Scrollable = checked Title = Ending Balance
<b>HorizontalArrangement1</b>	AlignHorizontal = Center Width = Fill parent Height = Automatic
<b>LabelStartingBlancePrompt</b>	Text = Starting Balance:
<b>TextBoxStartingBalance</b>	Enabled = checked NumbersOnly = checked Width = Automatic

	Height = Automatic
<b>HorizontalArrangement2</b>	AlignHorizontal = Center Width = Fill parent Height = Automatic
<b>LabelNumberMonthsPrompt</b>	Text = Number of Months:
<b>TextBoxNumberMonths</b>	Enabled = checked NumbersOnly = checked Width = Automatic Height = Automatic
<b>HorizontalArrangement3</b>	AlignHorizontal = Center Width = Fill parent Height = Automatic
<b>LabelEndingBalance</b>	Text = Ending Balance:
<b>TextBoxEndingBalanceDisplay</b>	Enabled = unchecked Width = Automatic Height = Automatic
<b>ButtonCalculate</b>	Text = Calculate Ending Balance
<b>ButtonReset</b>	Text = Reset

Step 3: Now you will program the blocks for the app. Open the Blocks Editor.

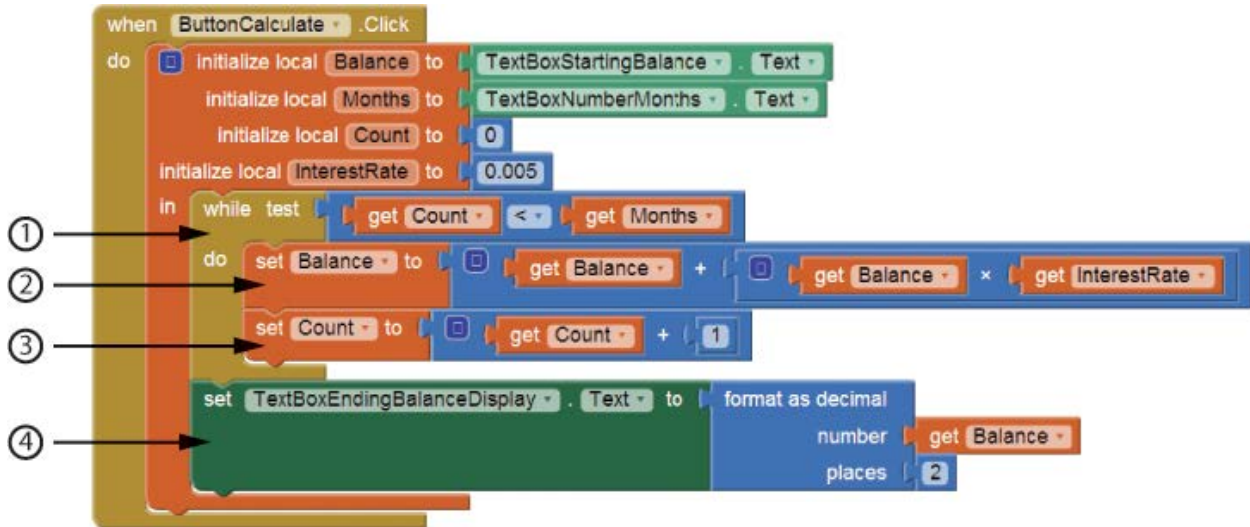
Step 4: Create the Click event handler for the ButtonCalculate button. Inside the event handler, create the local variable initialization block shown below. The variables are needed to calculate the ending balance. (You will need to use the initialization block's mutator bubble to add all of the necessary variables.) Here is a summary of each variable's purpose:

- The Balance variable will hold the account balance. It is initialized with the value the user has entered into the TextBoxStartingBalance component.
- The Months variable will hold the number of months that the account will earn interest. It is initialized with the value the user has entered into the TextBoxNumberMonths component.
- The Count variable will be used to count the months as a loop iterates. Notice that it is initialized to the value 0.
- The InterestRate variable holds the monthly interest rate, which is 0.005.



Step 5: Complete the ButtonCalculate.Click event handler as shown below. The blocks that are pointed out are described here:

- The while loop executes as long as Count is less than Months.
- This block calculates the monthly interest and adds it to the balance.
- This block adds 1 to the Count variable.
- This block displays the balance, rounded to two decimal places.



Step 6: Create the Click event handler for the ButtonReset button as shown below. The event handler sets each of the TextBox components' Text properties to blank text.



Step 7: Test the app in the emulator or on your device. First, enter 1000 as the starting balance and 48 as the number of months. Click the Calculate Ending Balance button, and 1270.49 should appear as the ending balance.