App Inventor

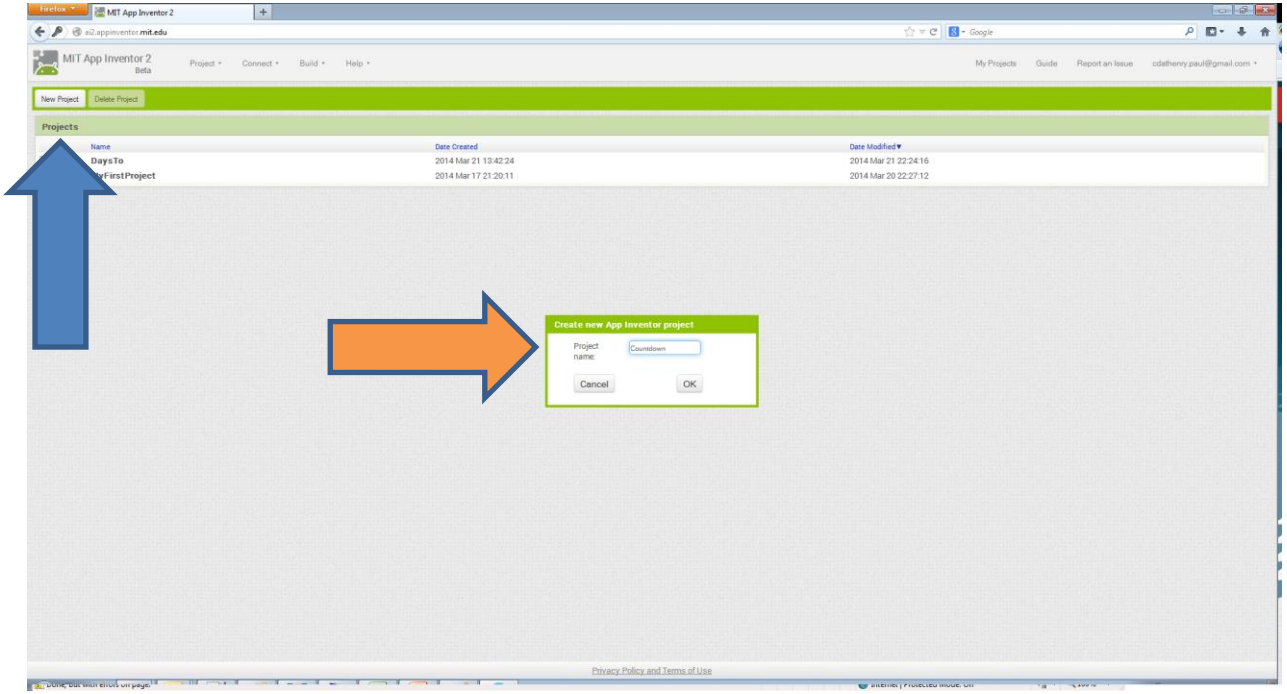
This week we are going to make a CountDown app.

App Inventor

What we plan to do is similar to:
http://www.yourchristmascountdown.com/

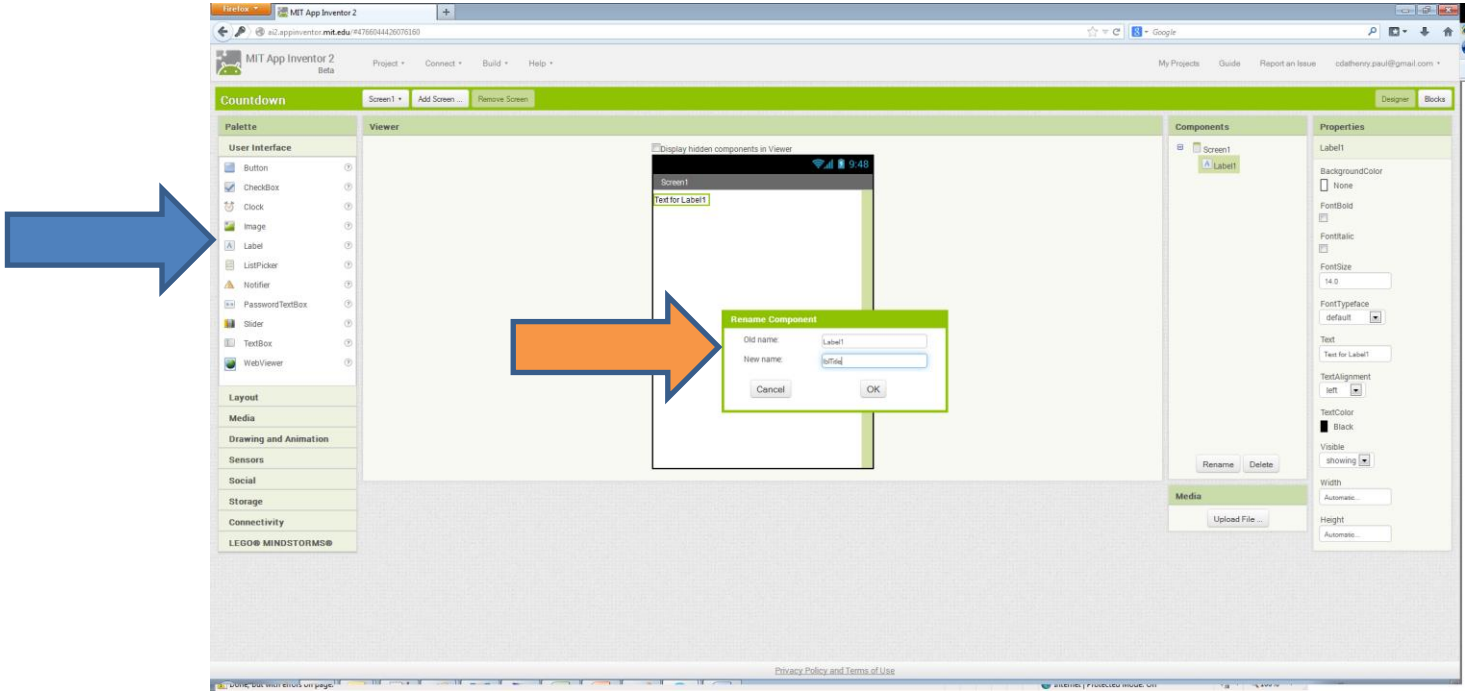
App Inventor – Step 1

Click on the New Project button. The project name is Countdown.



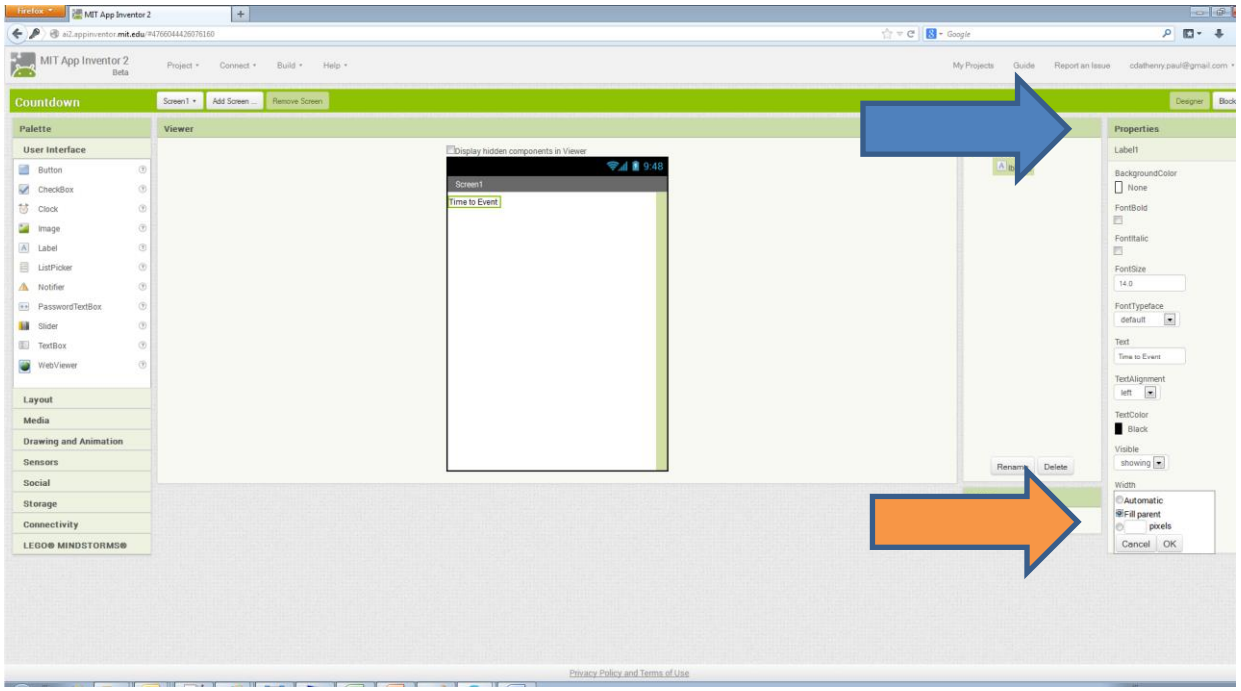
App Inventor – Step 2

Drag and drop a Label control from the Palette. Rename the control to lblTitle.



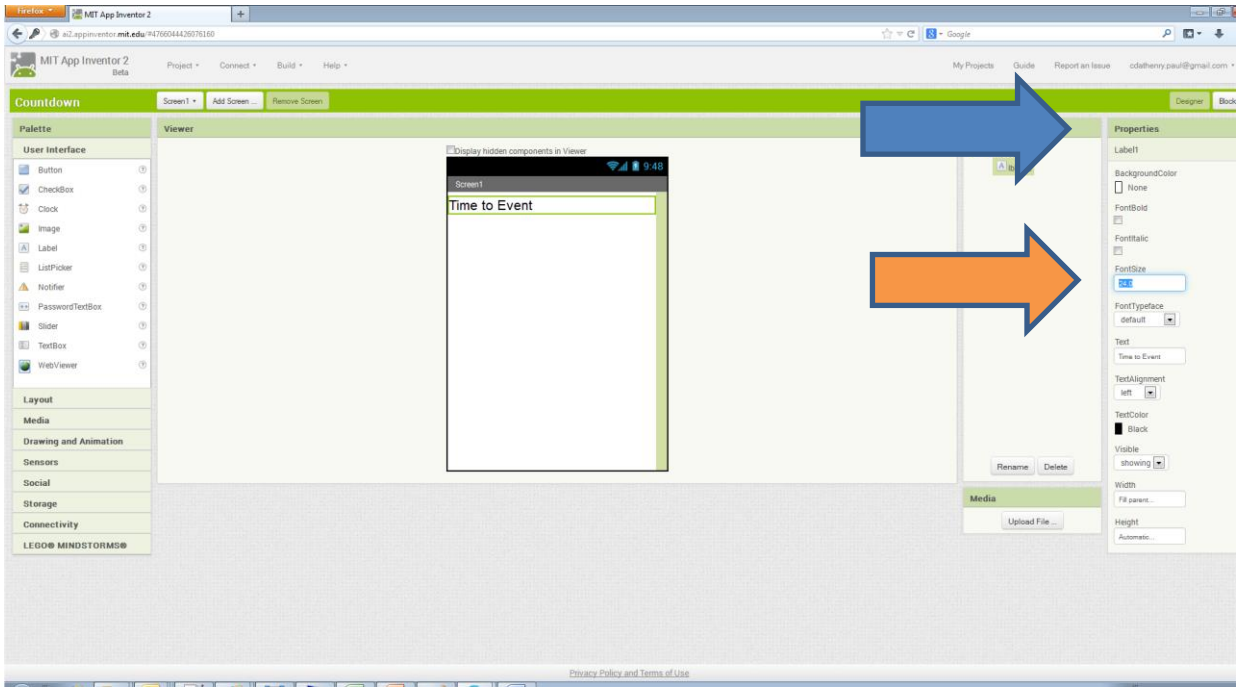
App Inventor – Step 3

Select the Properties column. Change the Width to Fill parent.



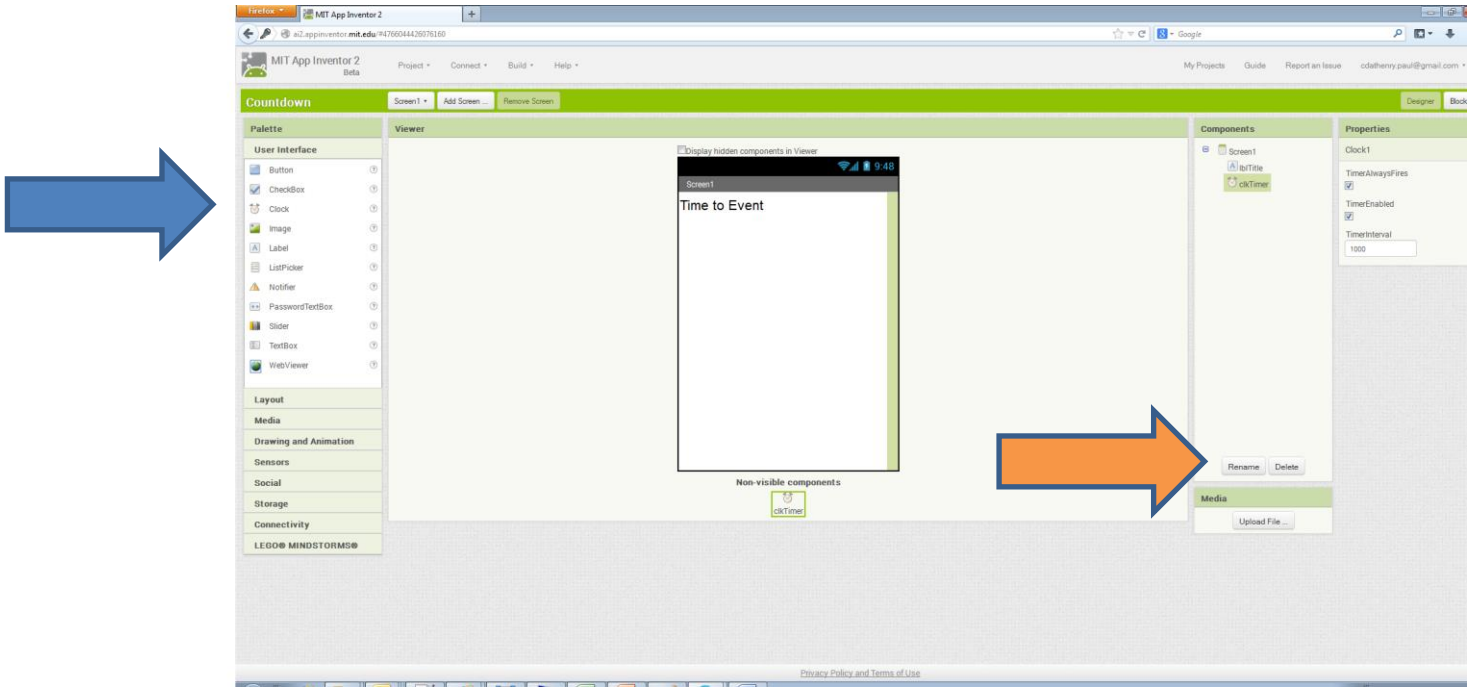
App Inventor – Step 4

Select the Properties column. Change the FontSize.



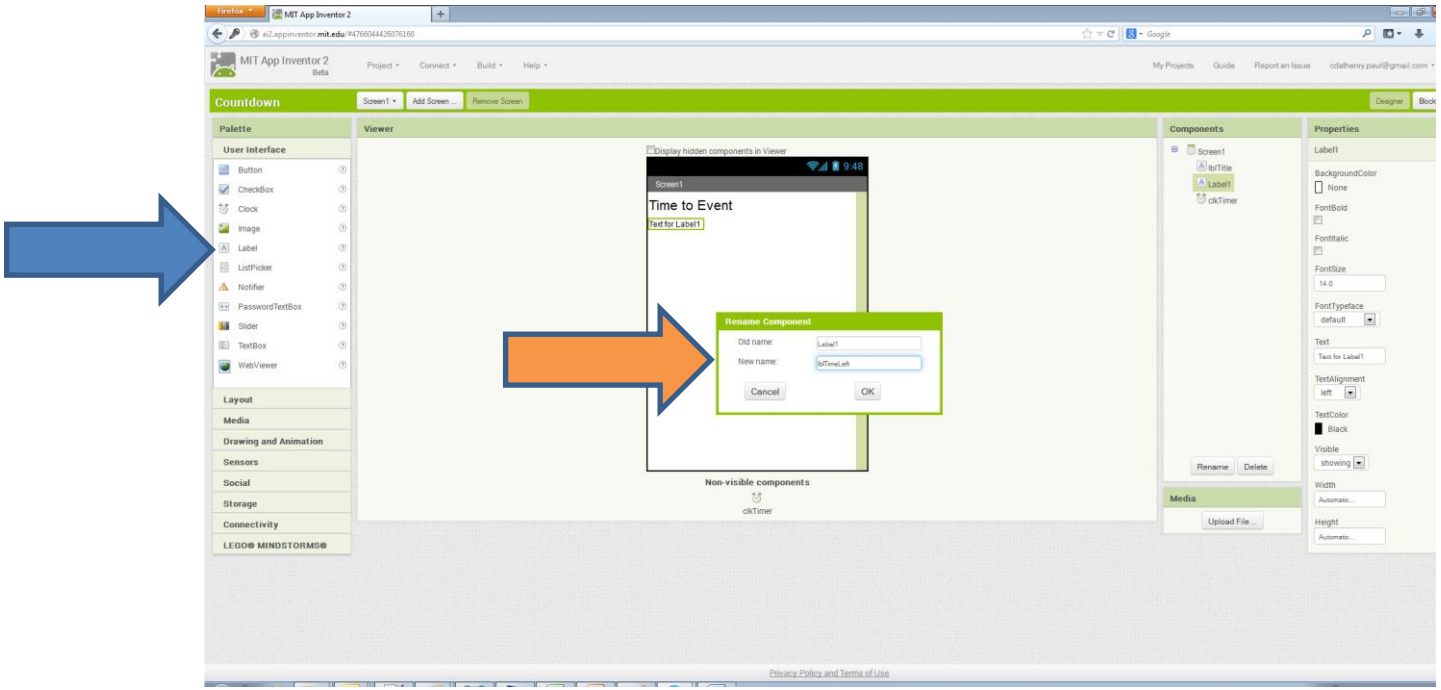
App Inventor – Step 5

Drag and drop a Clock control from the Palette. Rename the control to clkTimer.



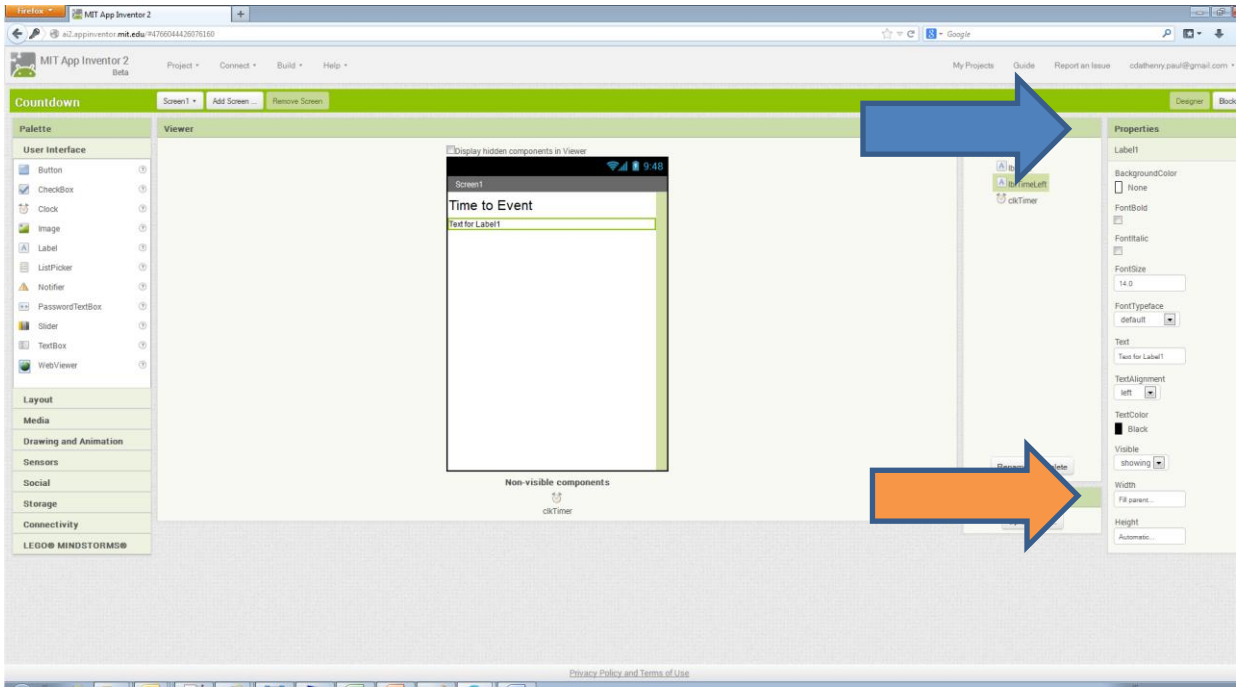
App Inventor – Step 6

Drag and drop a Label control from the Palette. Rename control to lblTimeLeft



App Inventor – Step 7

Select the Properties column. Change the Width to Fill parent.



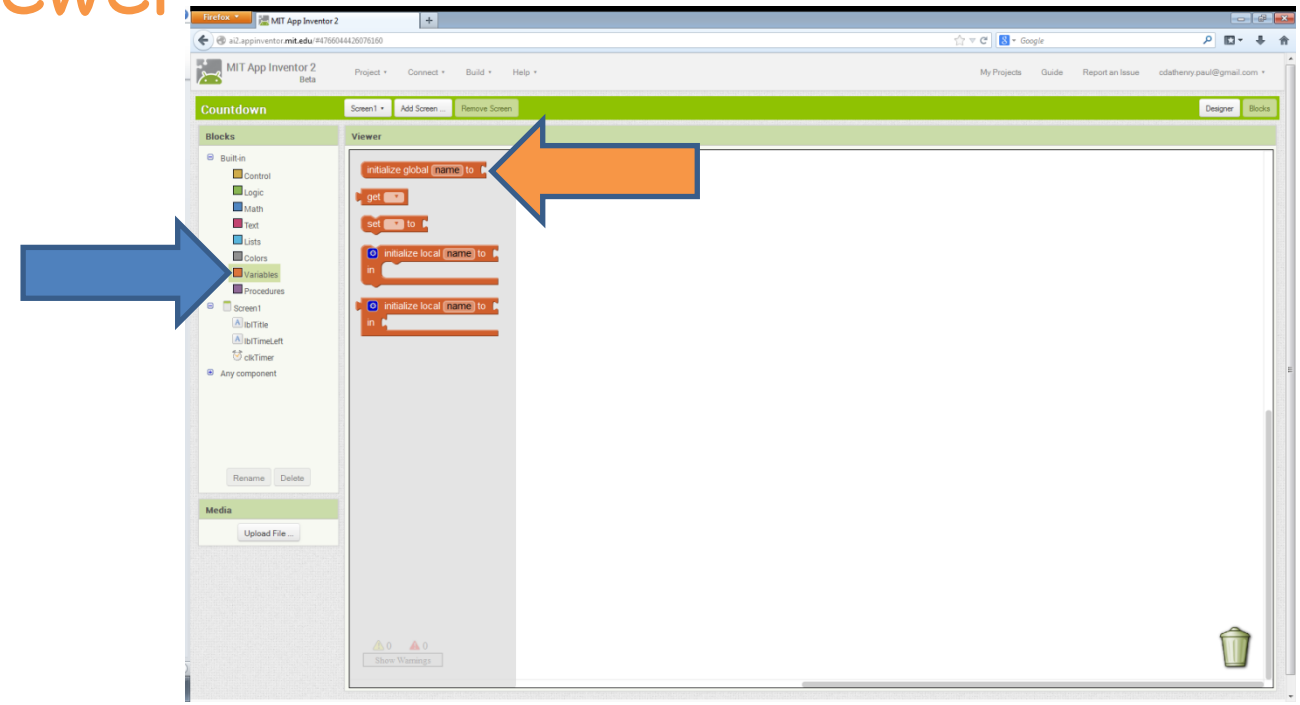
App Inventor

Next steps:

1. Create a Global variable to store the number of milliseconds until Dec. 25th
2. When the app starts calculate the number of milliseconds until Dec. 25th
3. Store this value in a Global variable
4. Every time the timer event triggers calculate the number of milliseconds for the current time
5. Calculate the difference in milliseconds between the current time and the time until Dec. 25
6. Store this in a Local variable

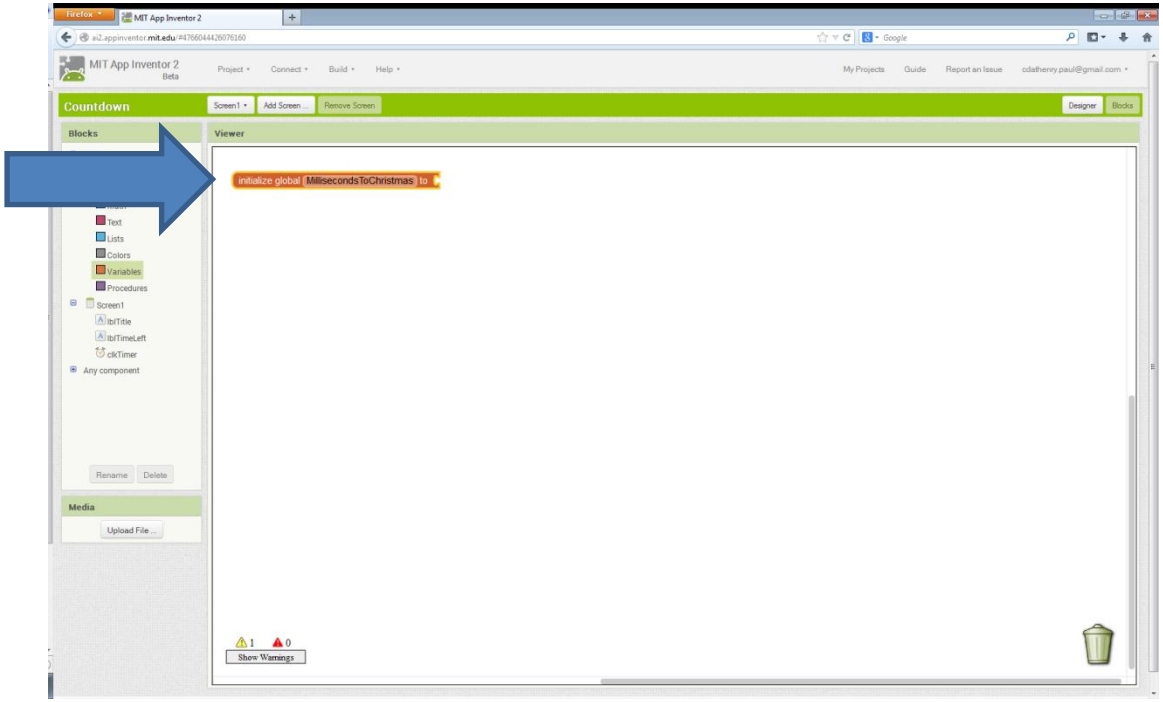
App Inventor – Step 8

Select Variables block drag and drop "initialize global <name> to" to the script Viewer



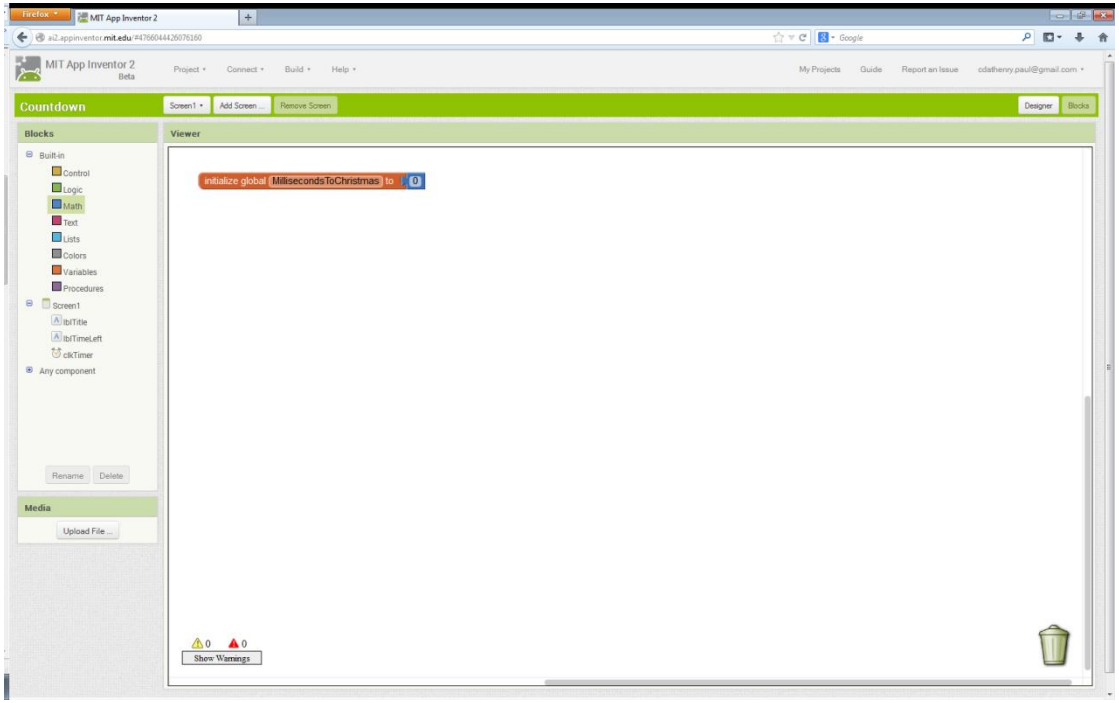
App Inventor – Step 9

Change the variable name to MillisecondsToChristmas.



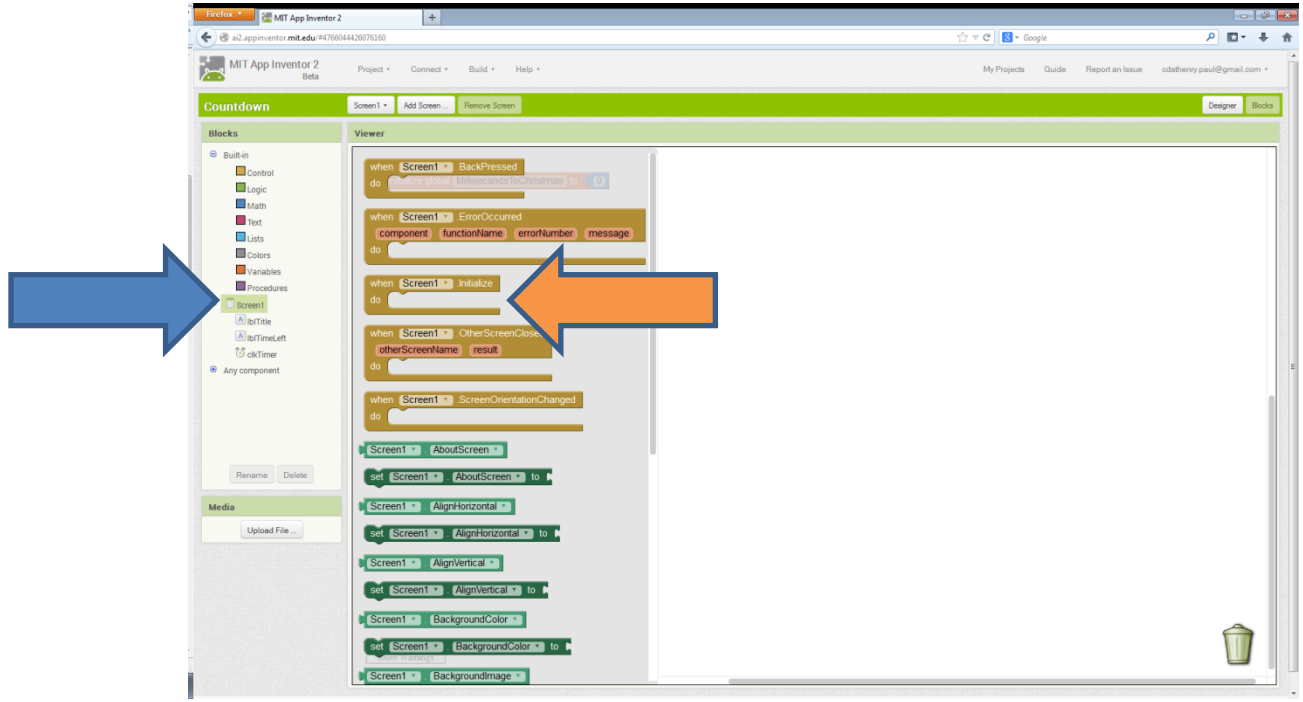
App Inventor – Step 10

Select **Math** from Built-in Blocks. Select the 0 value block. Drop it to the end of the "initialize global…to" Block.



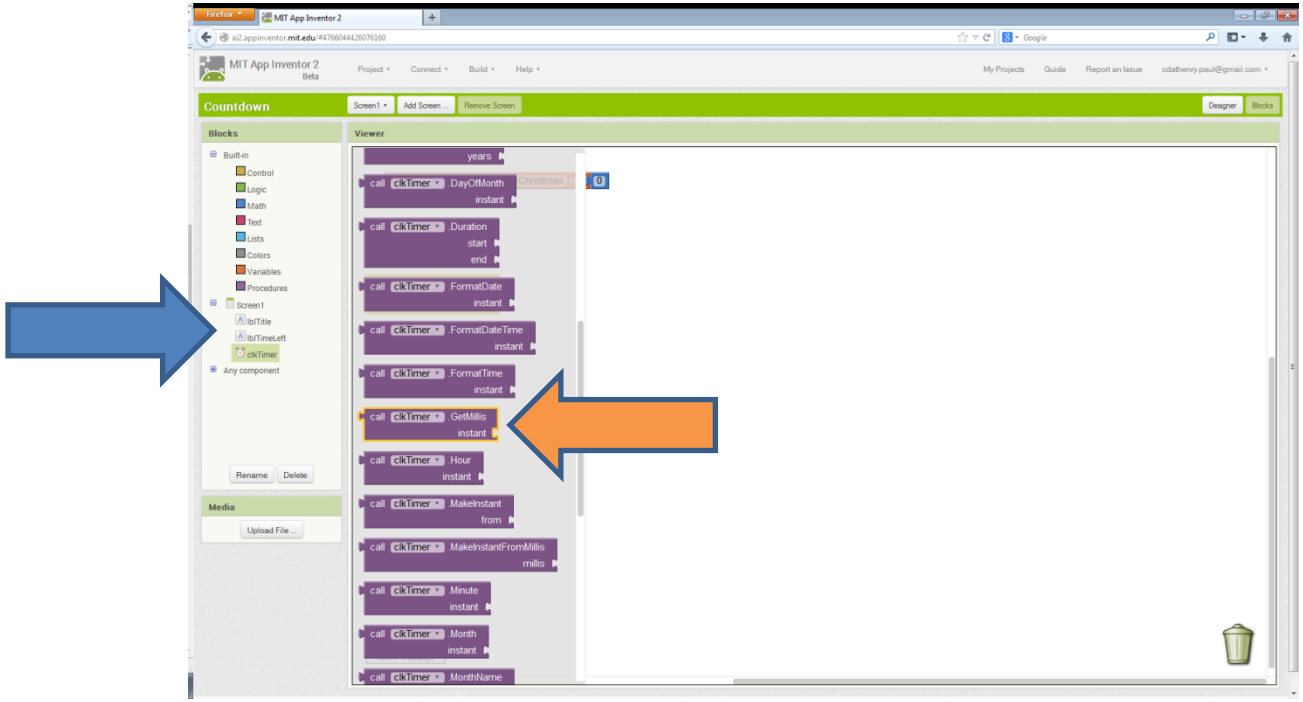
App Inventor – Step 11

Select the Screen block, select the "when Screen1.Initialize script.



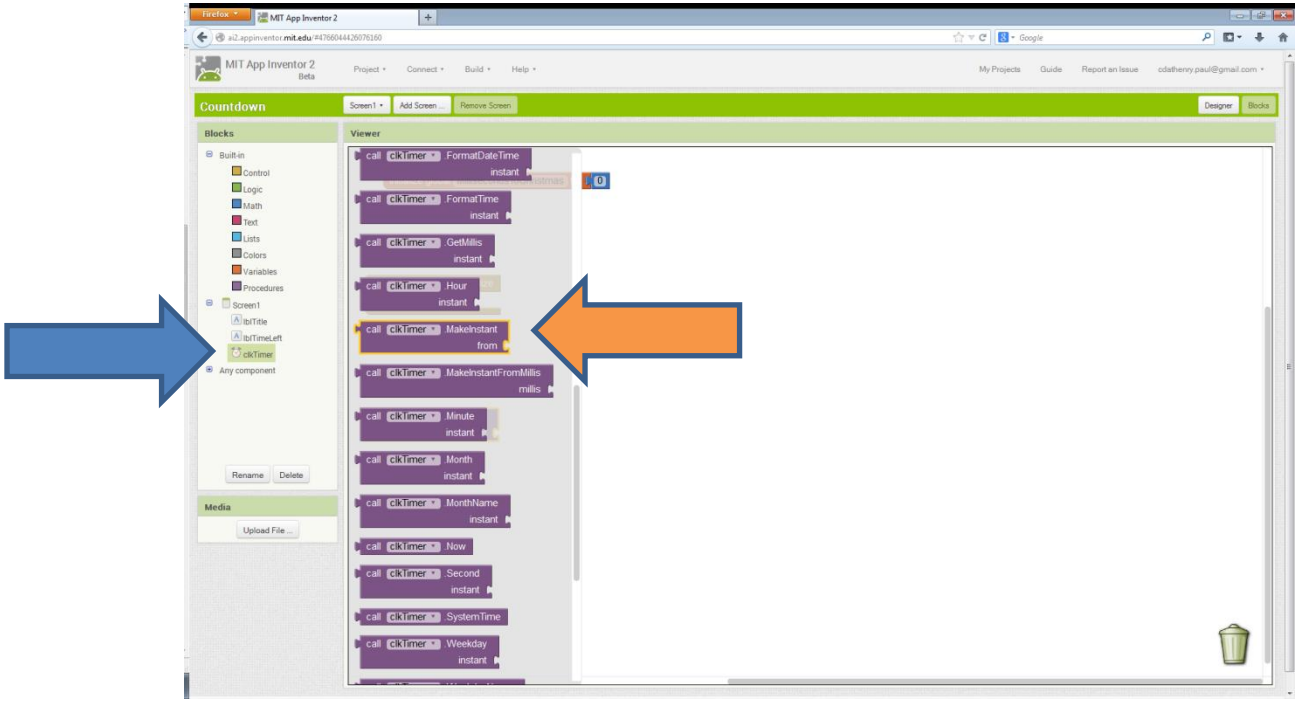
App Inventor – Step 12

Select the clkTimer block, select the call clkTimer.GetMillis script.



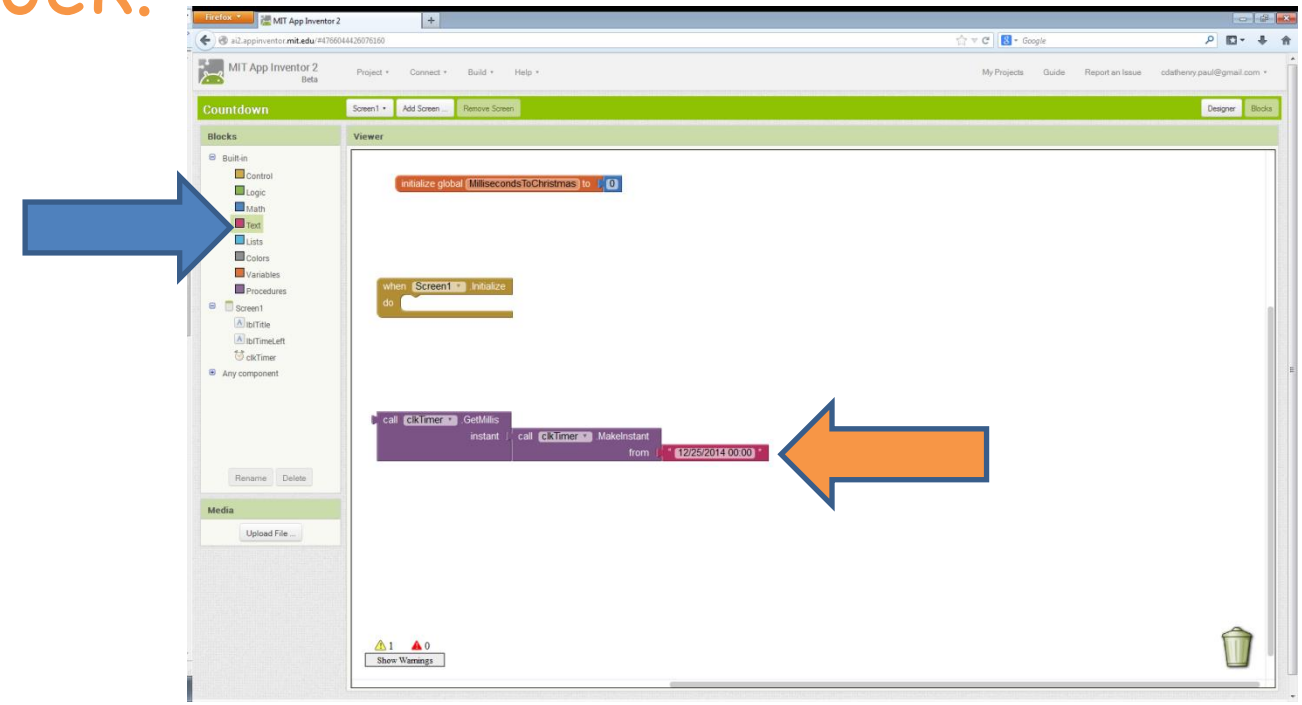
App Inventor – Step 13

Select the clkTimer block, select the call clkTimer.MakeInstant script.



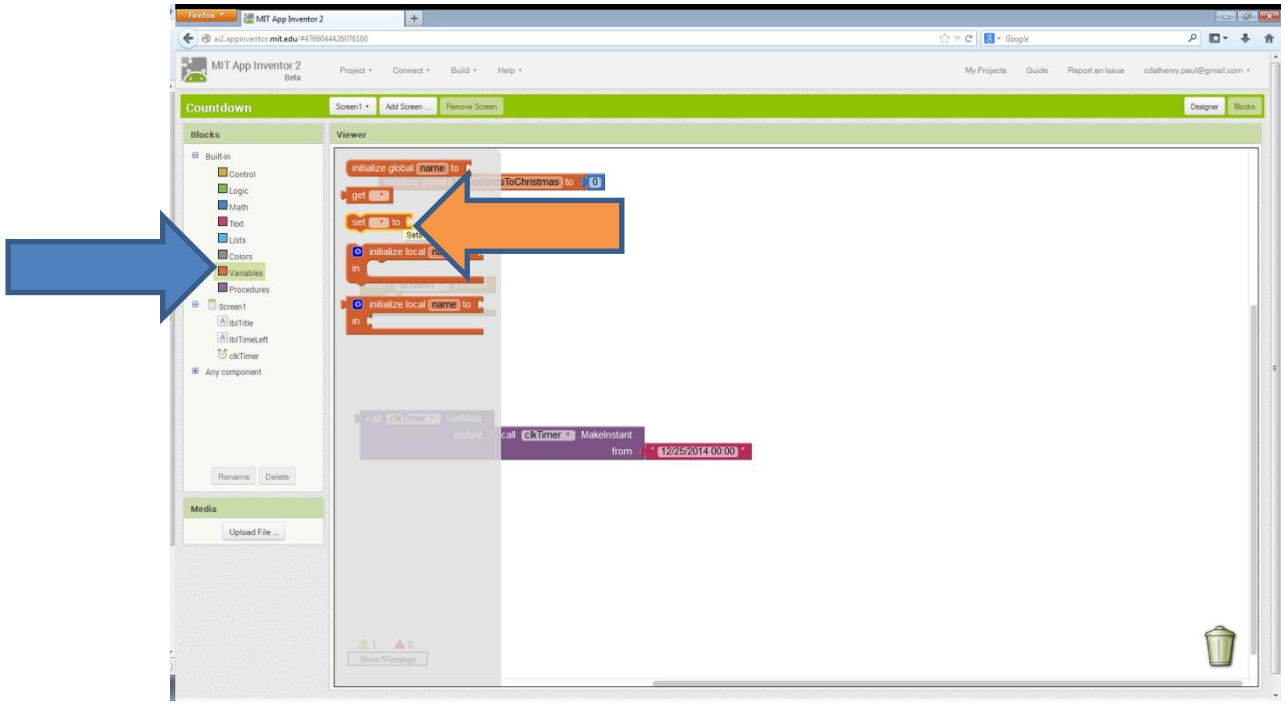
App Inventor – Step 14

Select the Text block, select the blank Text type 12/25/2014 00:00 into the Block.



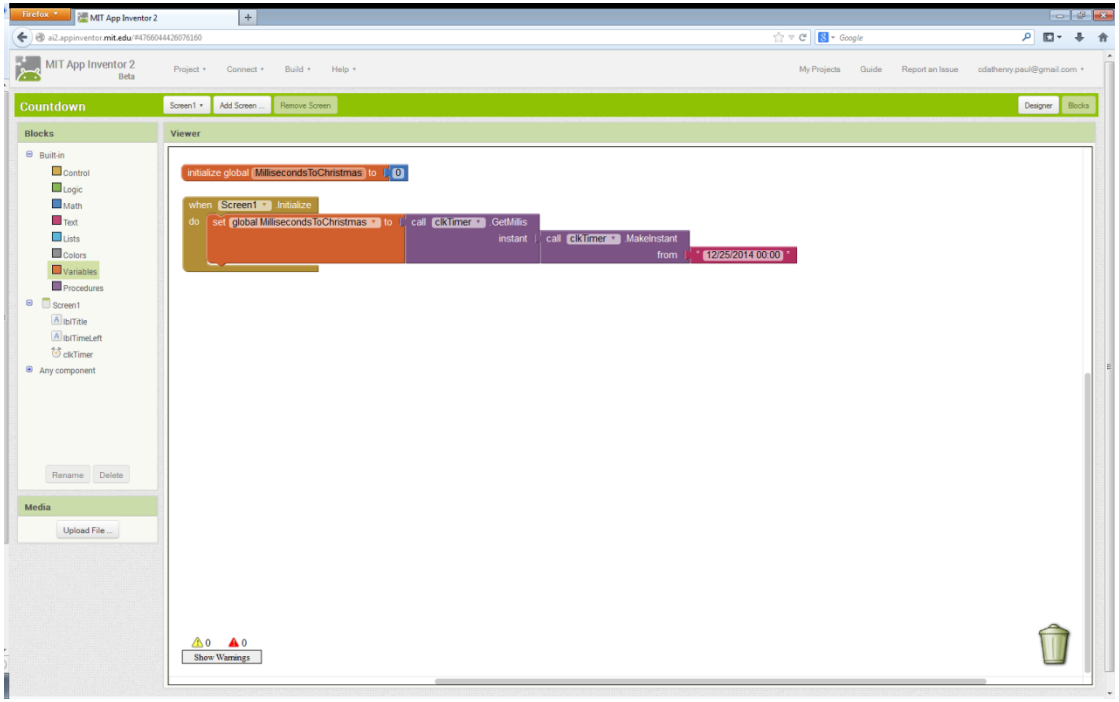
App Inventor – Step 15

Select the Variables block, select the set..to Block. Change the dropdown to global MillisecondsToChristmas.



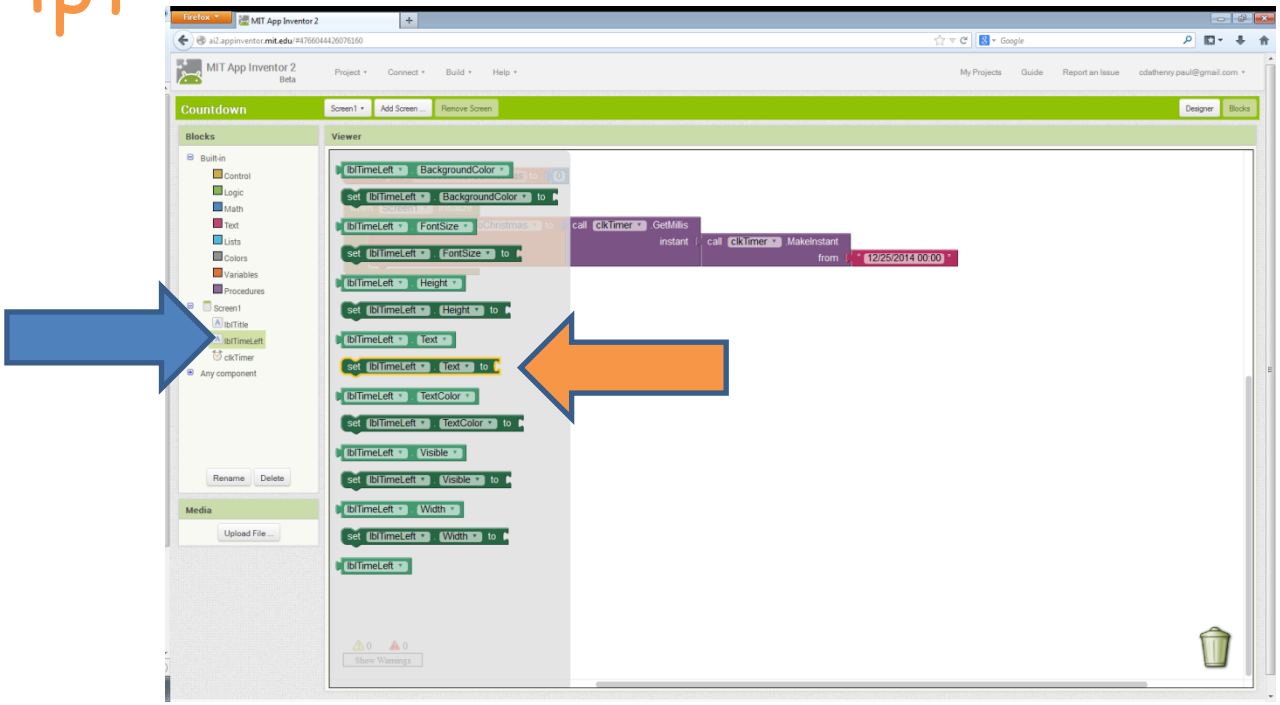
App Inventor – Step 16

Plug the script blocks together and place within the "when Screen1.Initialize".



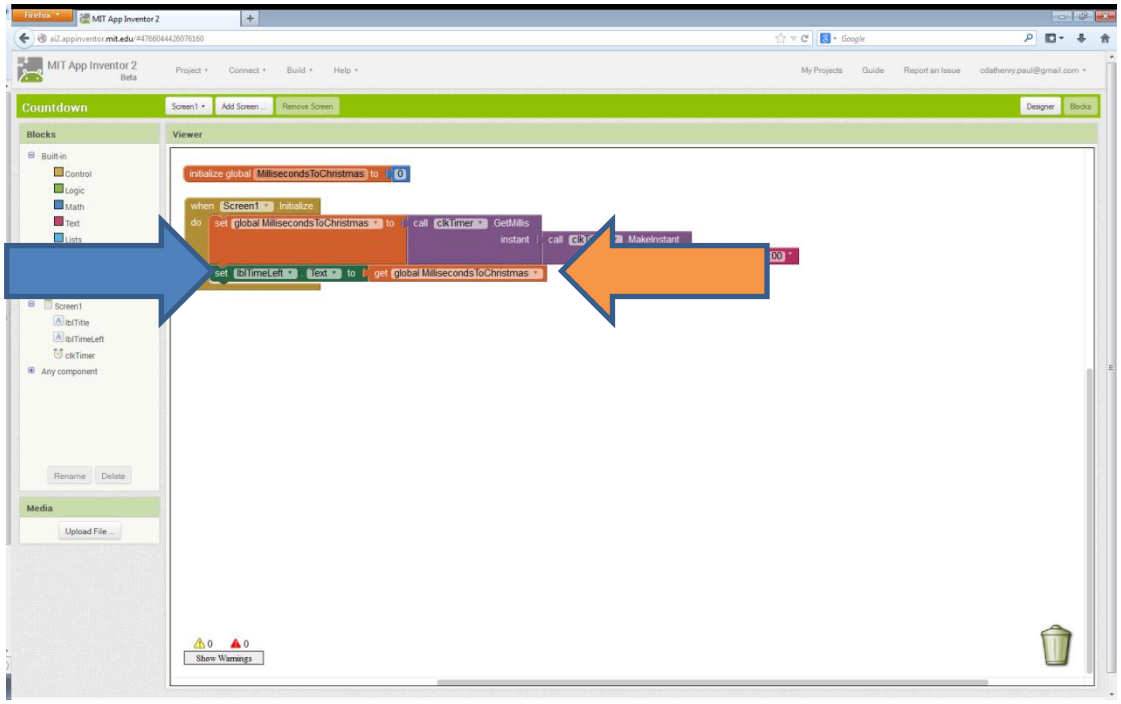
App Inventor – Step 17

To test the script, select thelblTimerLeft block, select the "set lblTimer.Text to" script



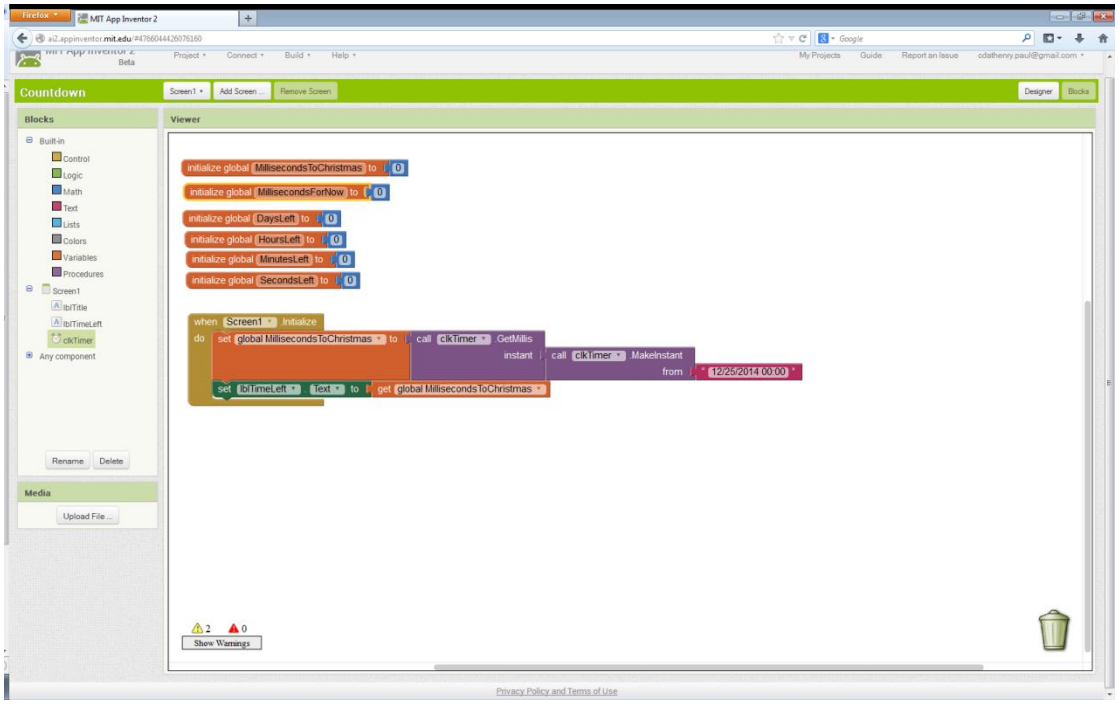
App Inventor – Step 18

Select the Variables Built-in block. Select the "get…" script. Change the dropdown to global MillisecondsToChristmas.



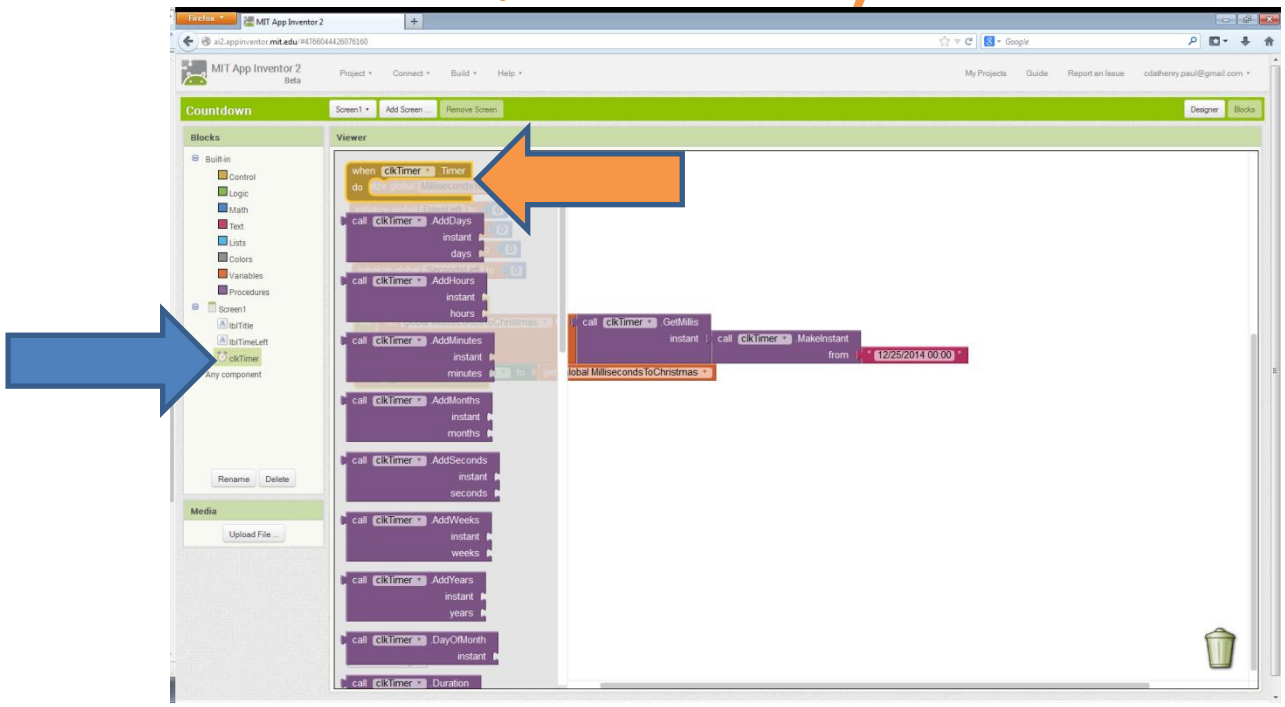
App Inventor – Step 19

Add additional global Variables, DaysLeft, HoursLeft, MinutesLeft, SecondsLeft, MillisecondsForNow.



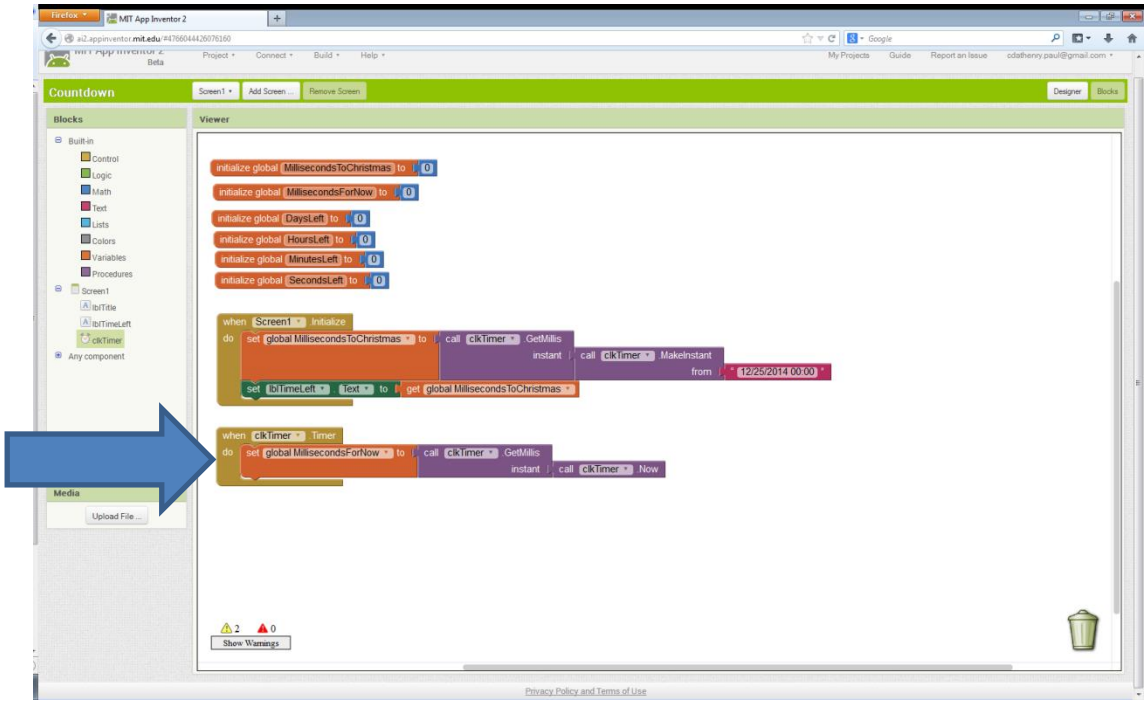
App Inventor – Step 20

Select the clkTimer block. Select the "when clkTimer.Timer" script. By default this event will fire every second.



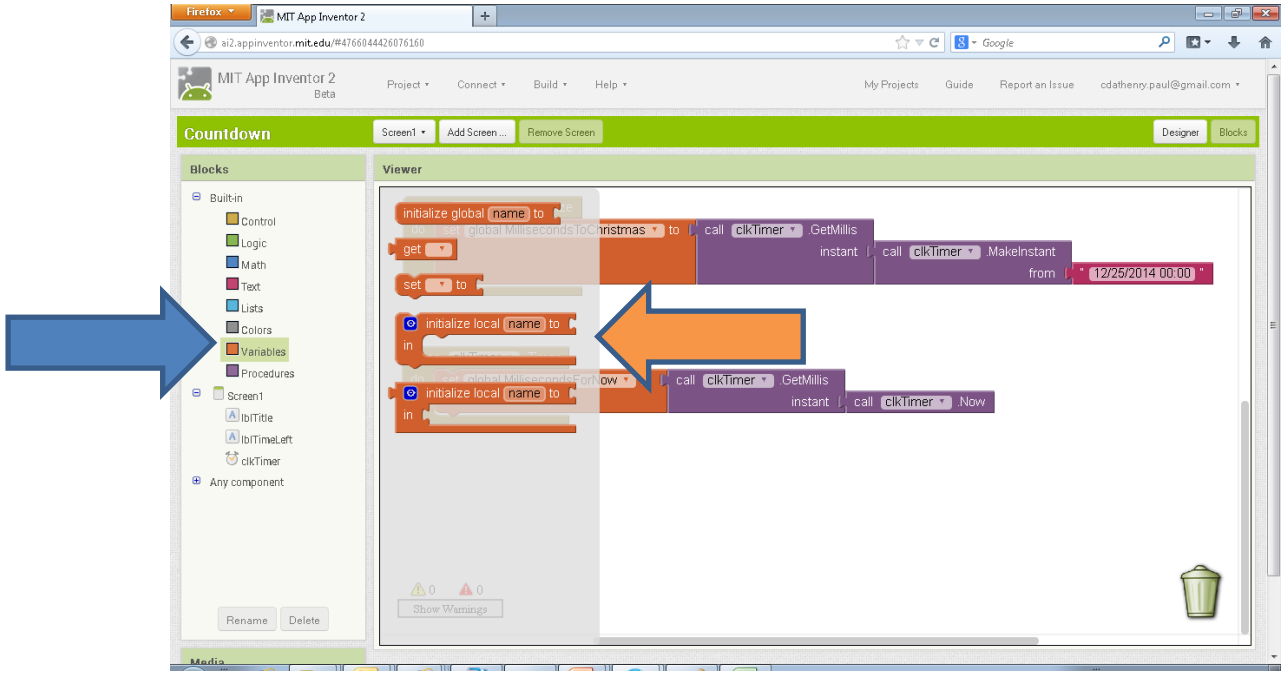
App Inventor – Step 21

In the "when clkTimer.Timer" script calculate the milliseconds for the current time.



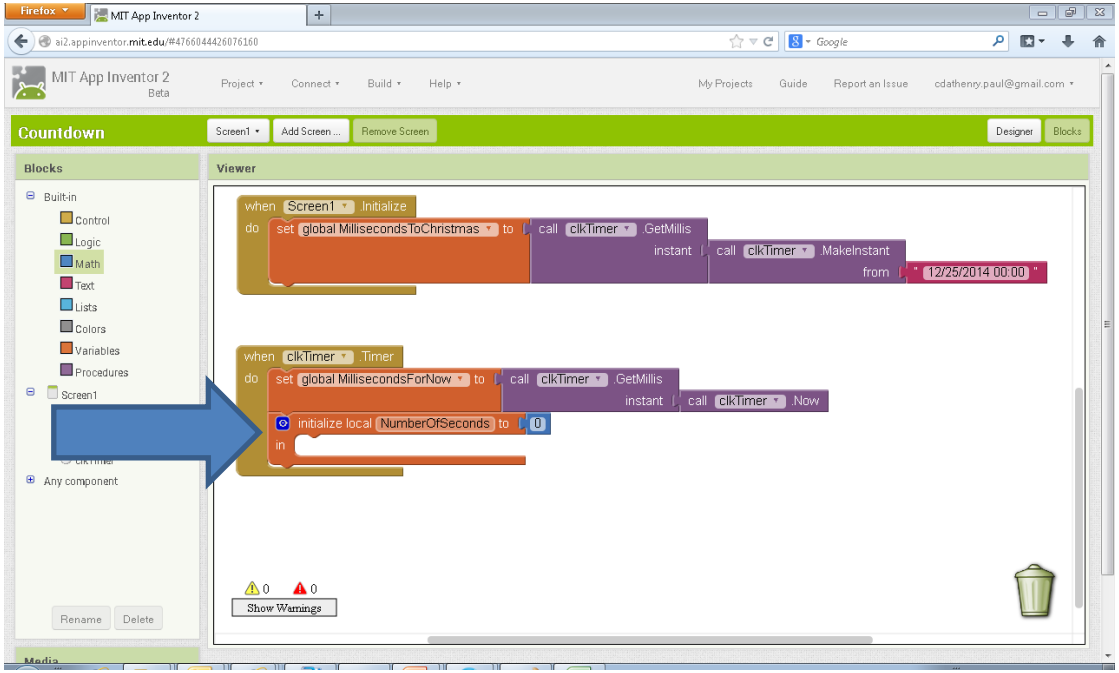
App Inventor – Step 22

Select the Variables block. Select the "initialize local …to" script.



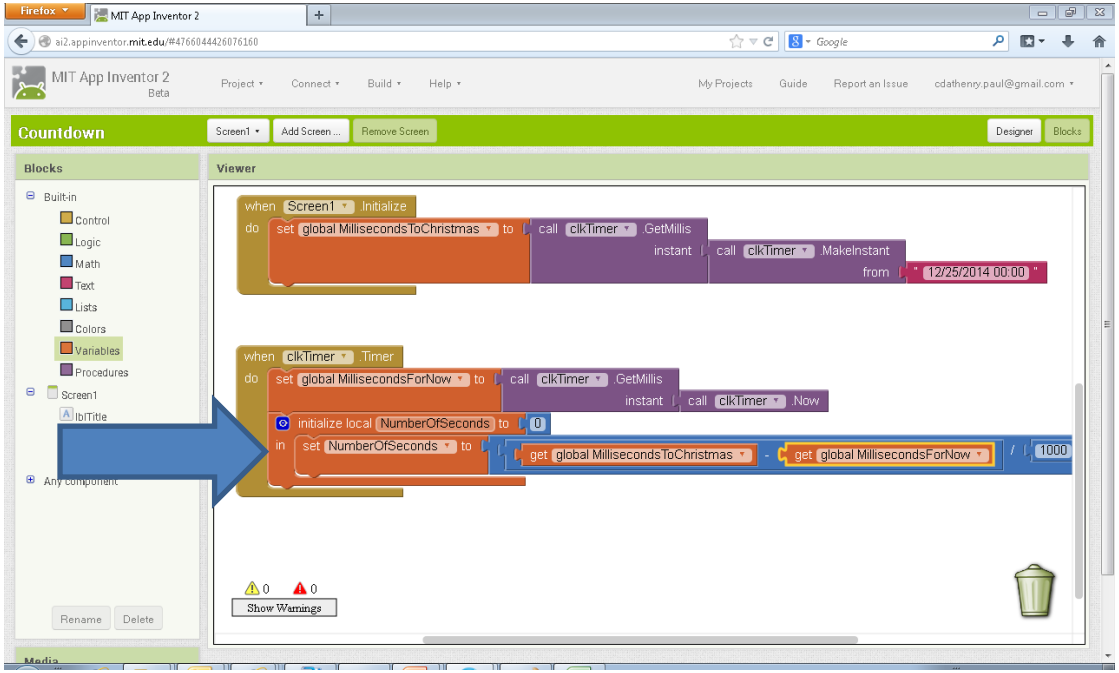
App Inventor – Step 23

Change the variable name to NumberOfSeconds. Select the value to zero.



App Inventor – Step 24

Set the variable NumberOfSeconds to MilliSecondsToChristmas less MilliSecondsForNow divide by 1,000.



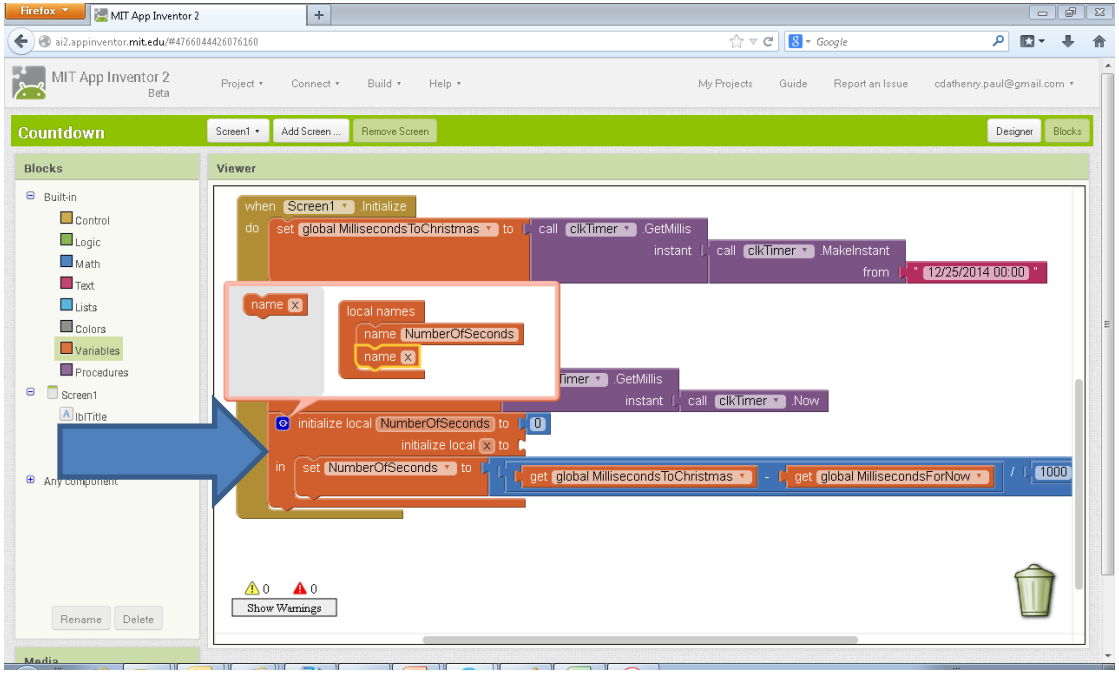
App Inventor

Next steps:

1. Number of seconds in a minute is 60
2. Number of seconds in a hour is 3,600
3. Number of seconds in a day is 864,000
4. Use this information to calculate the time left to Christmas

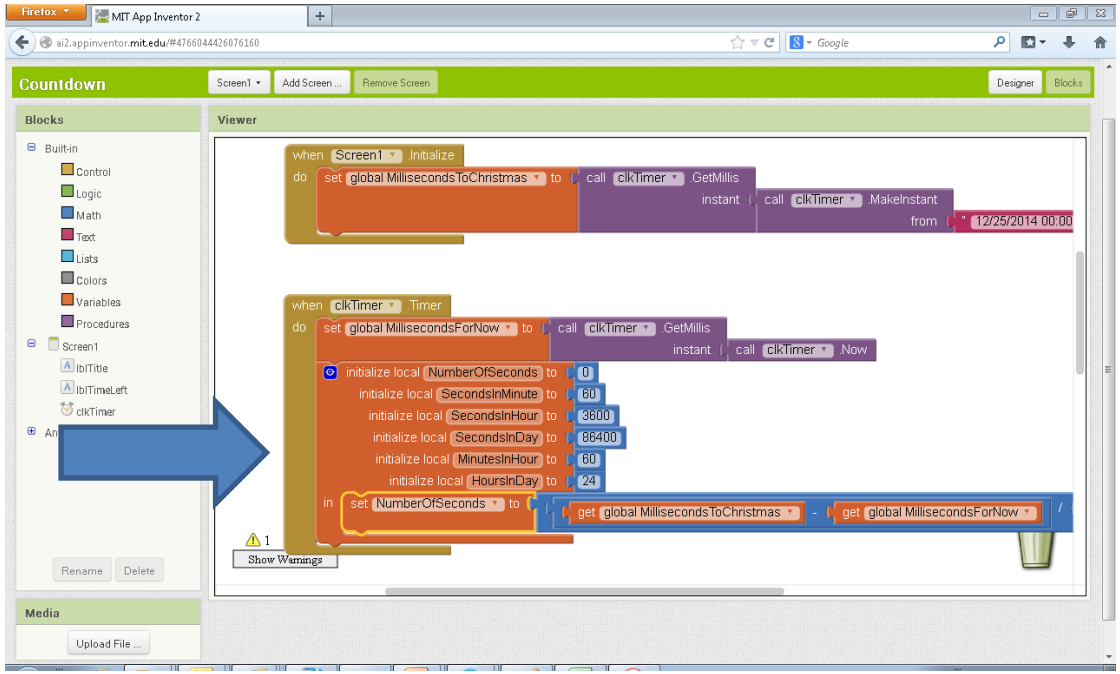
App Inventor – Step 25

Create more local variables SecondsInMinute, SecondsInHour, SecondsInDay set them to values.



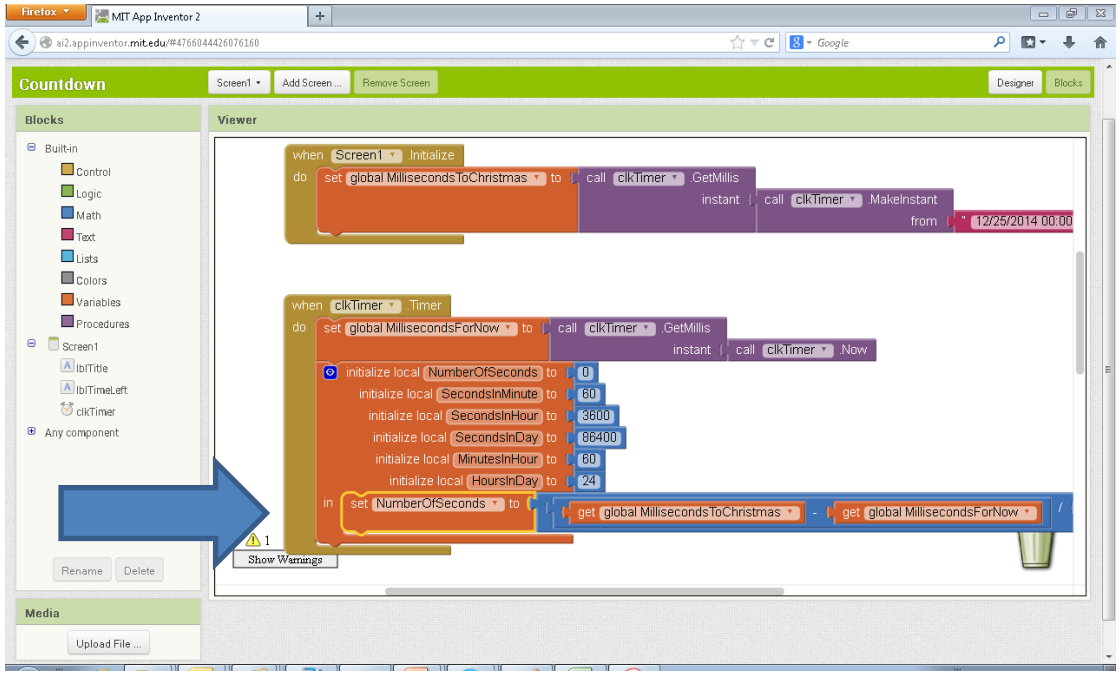
App Inventor – Step 27

The local variables would look like.



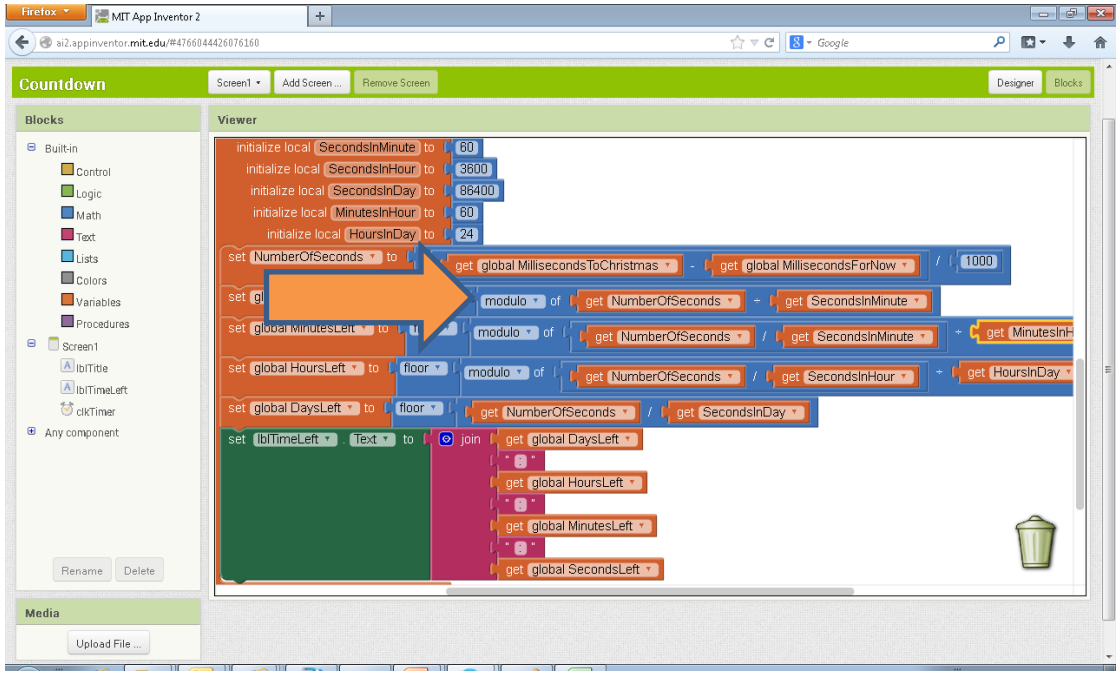
App Inventor – Step 28

To calculate the number of seconds left to Christmas use the divide math block.



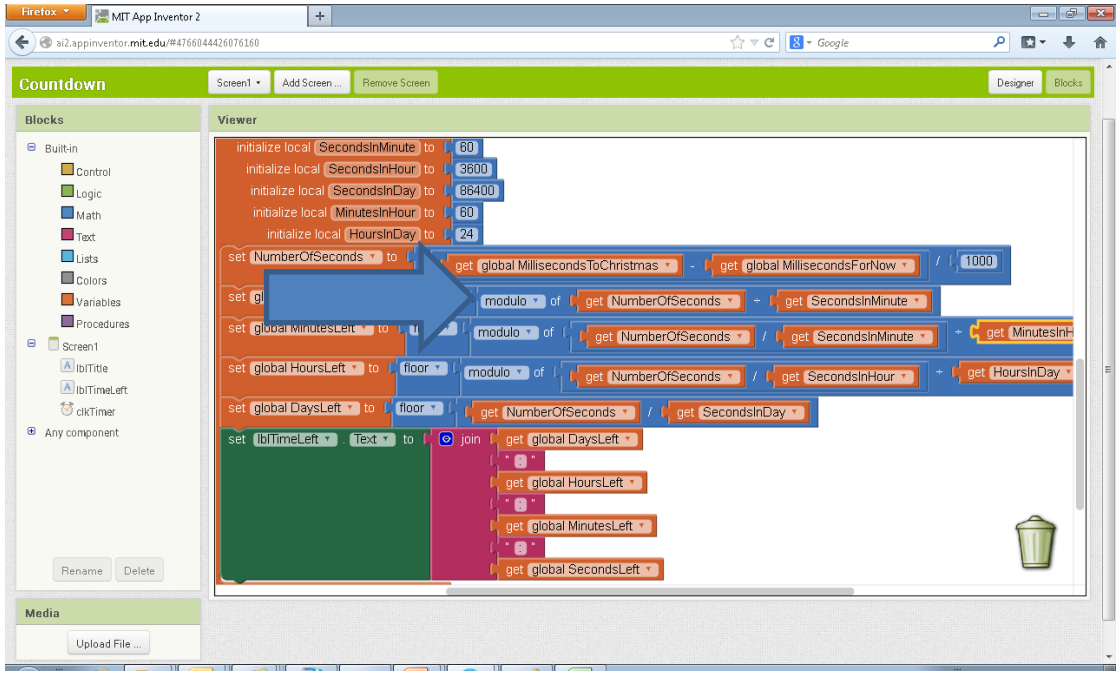
App Inventor – Step 29

To calculate the number of seconds left to Christmas use the **modulo** math block.



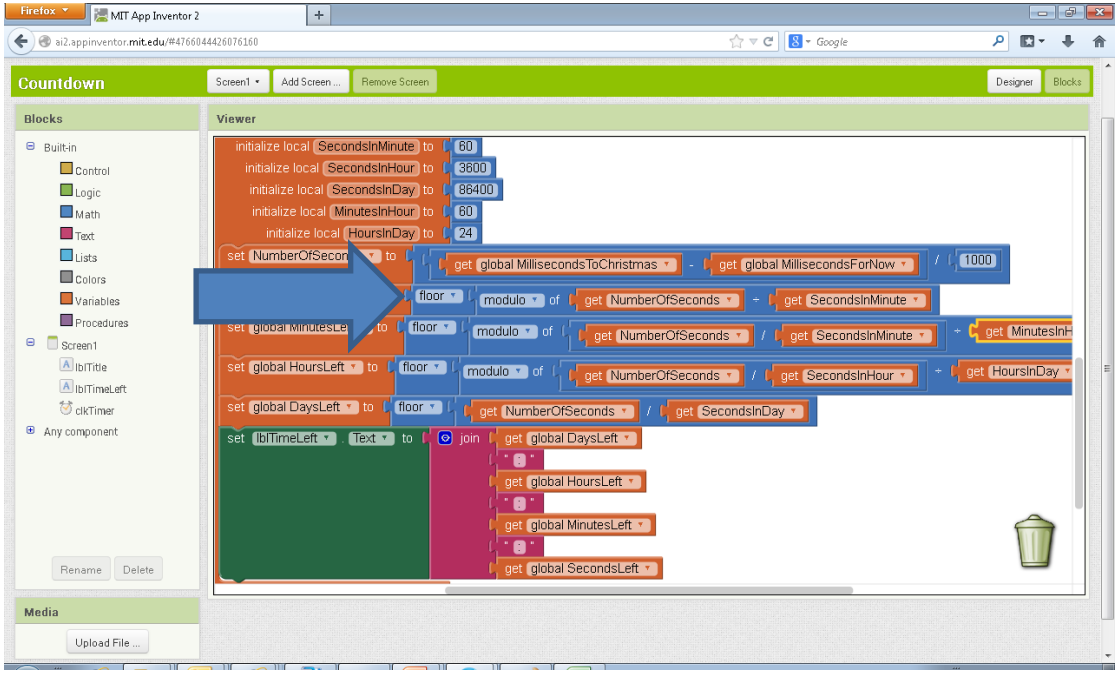
App Inventor – Step 30

The **modulo** math block will get the remainder of **modulo**.



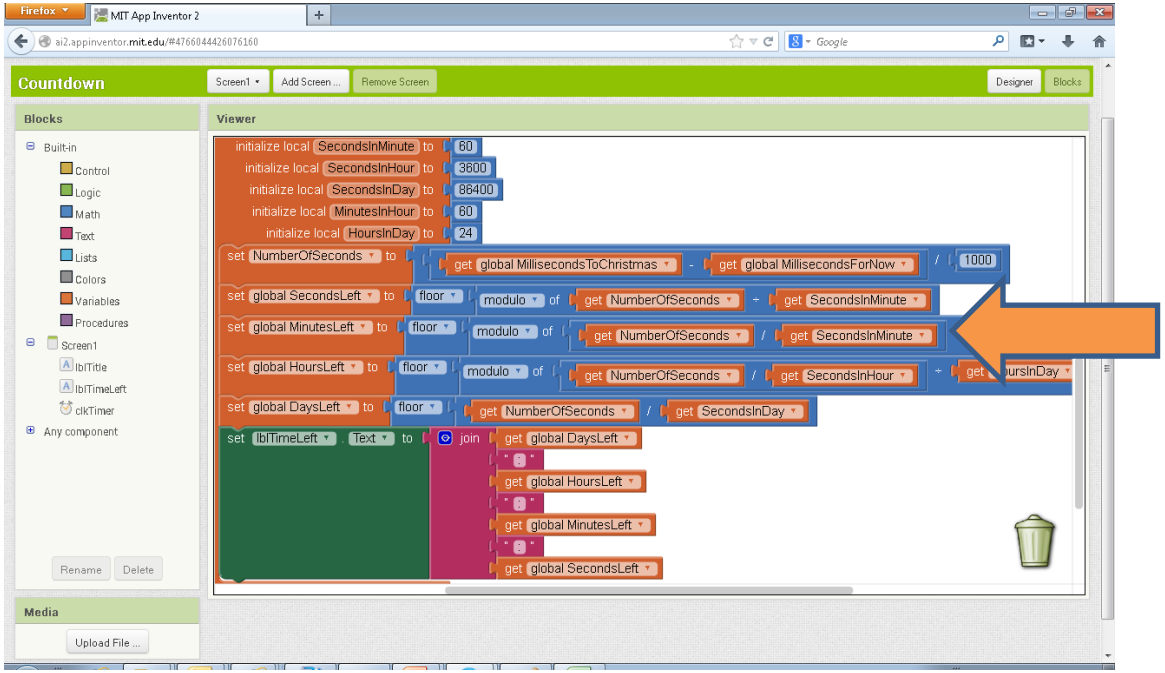
App Inventor – Step 31

Then use the floor math block to get the closest full number that is less than the number of seconds.



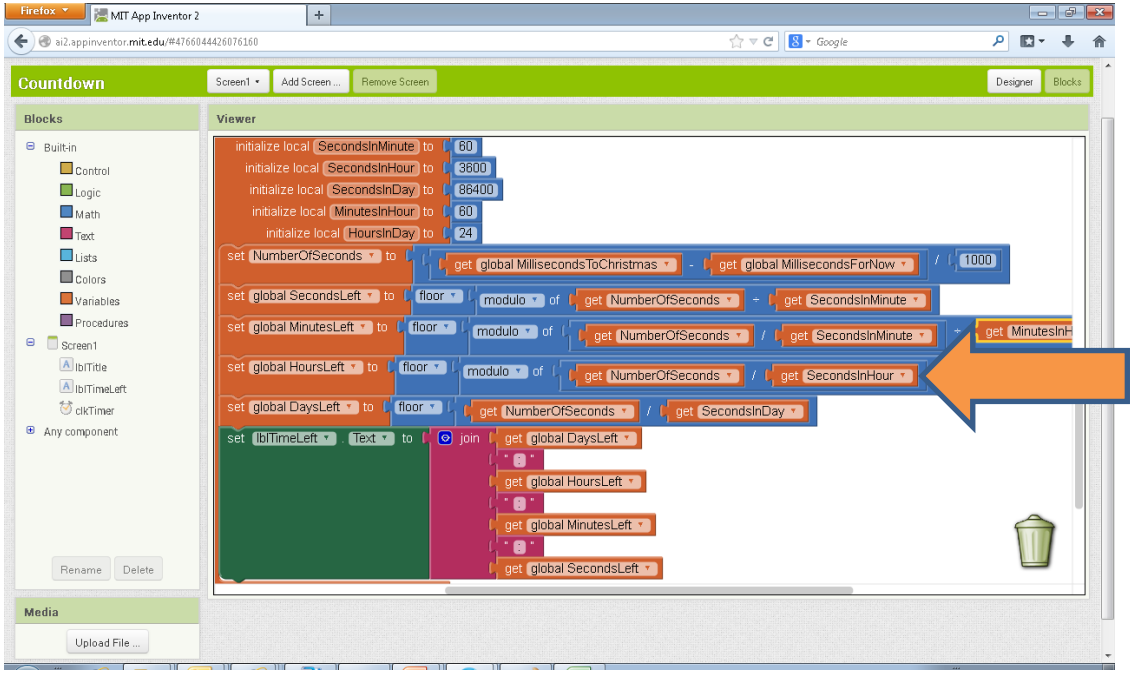
App Inventor – Step 32

To calculate the number of minutes left to Christmas use the divide math block, however use SecondsInMinute.



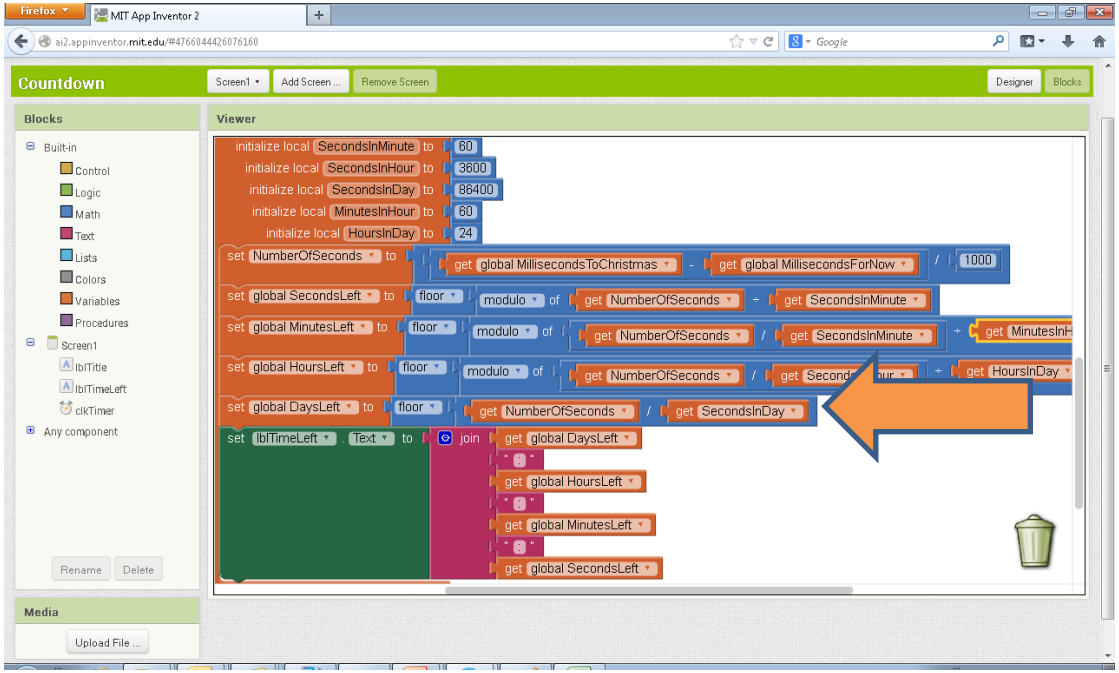
App Inventor – Step 33

To calculate the number of hours left to Christmas use the divide math block, however use SecondsInHour.



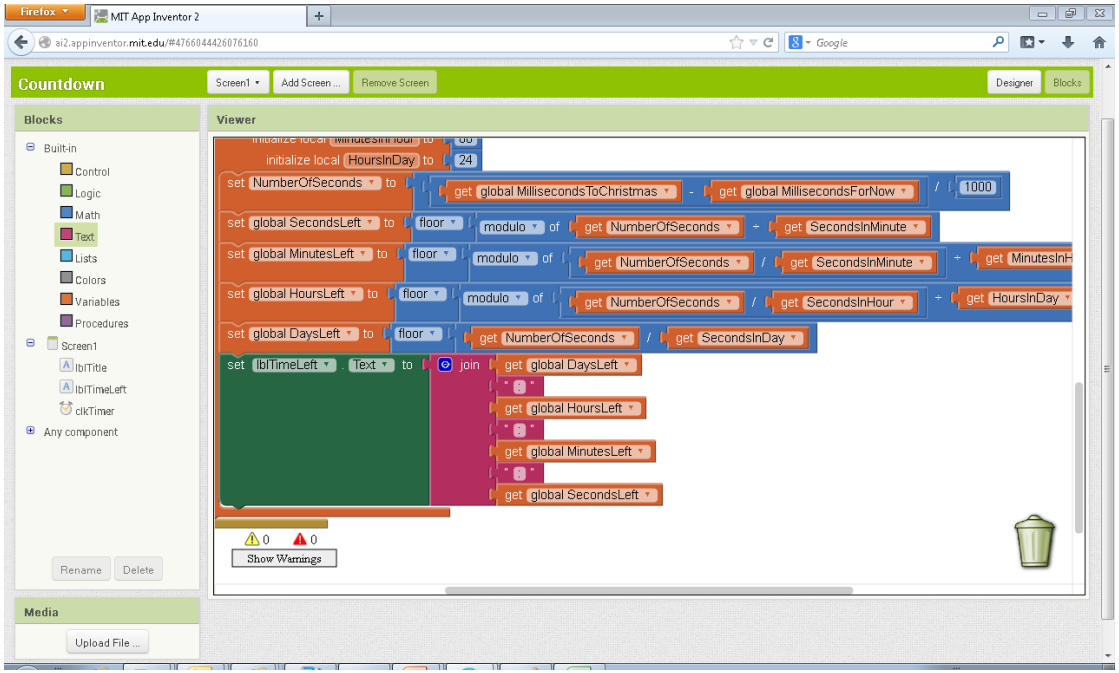
App Inventor – Step 34

To calculate the number of days left to Christmas divide NumberOfSeconds by SecondsInDay.



App Inventor – Step 35

Select Text select "Join" script.



App Inventor