
# Lab 4 Azure Functions

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December, 2017

This lab assumes you have completed Lab 2.

If you have any issues or concerns, please email: virtualbootcamphelp@microsoft.com.

**Execution Time:** 30 minutes.

**Required Hardware:**

- Windows 10 PC
- IoT Hardware kit: https://www.adafruit.com/product/3605 or similar hardware.
- Access to a WiFi network (without a captive portal aka web page login)

**Required Operating System:**

- Windows 10

**Other Requirements:**

- Azure Subscription

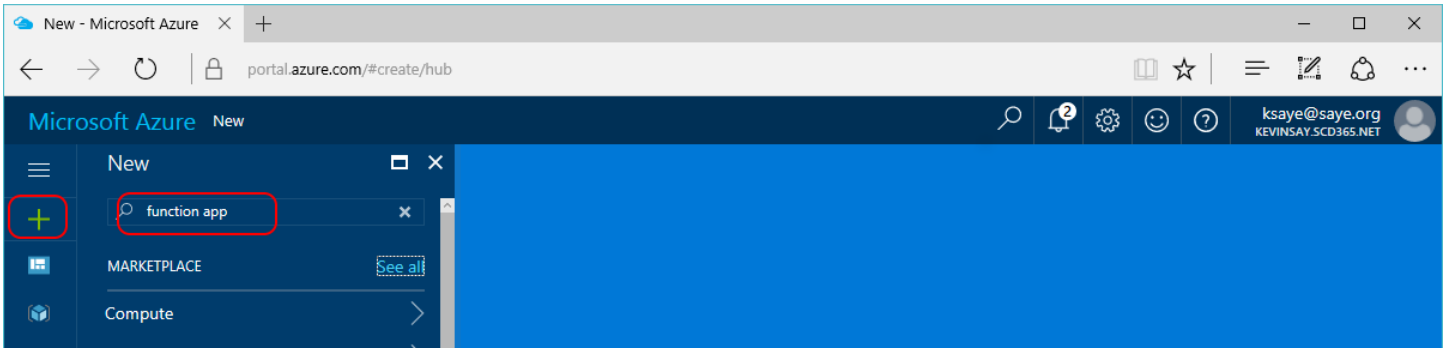
**Required Software:**

- None

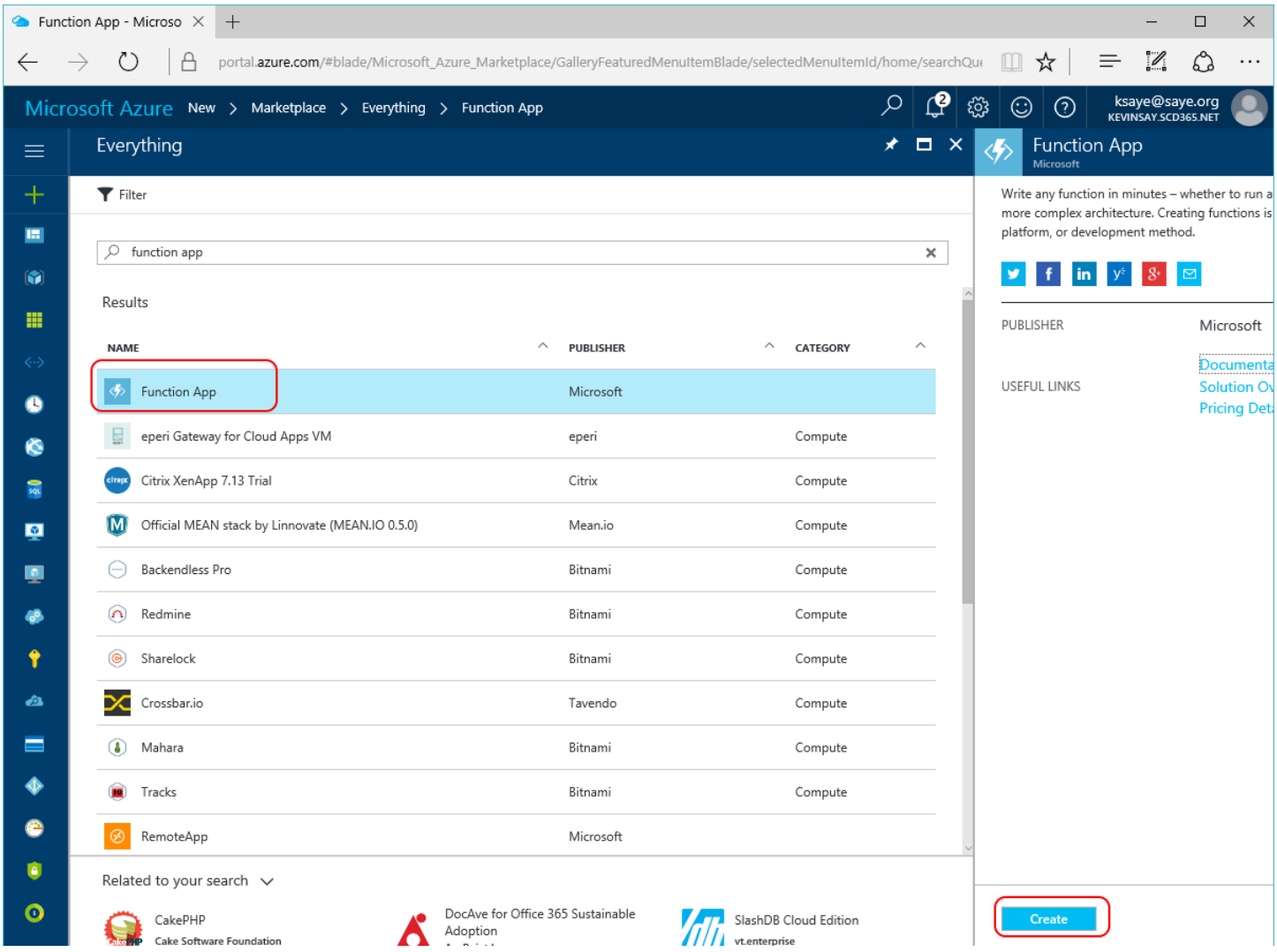
Step 1. Go to http://portal.azure.com and sign in.

Step 2. If not already stopped, stop your Stream Analytics Job from Lab 3.

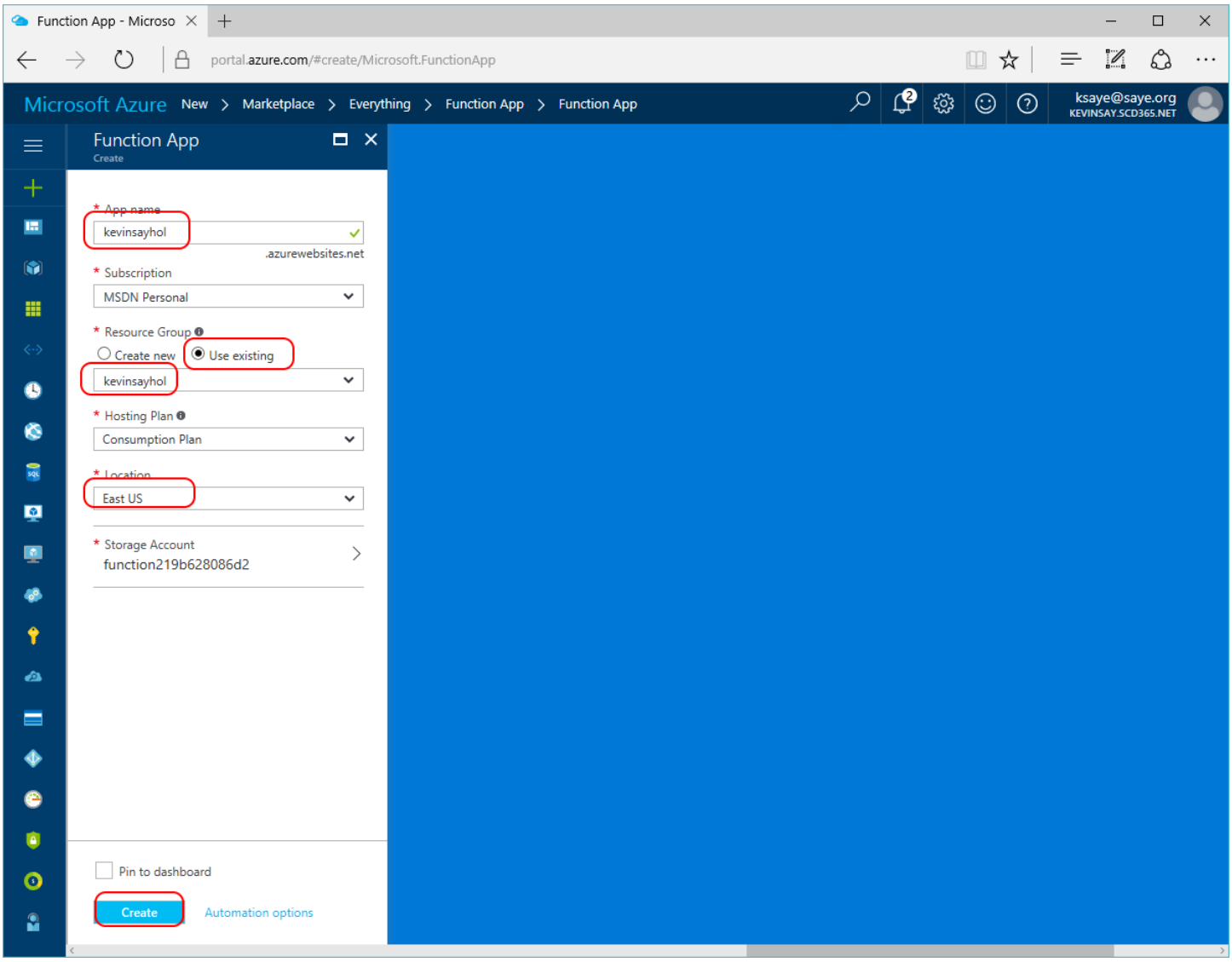
Step 3. Click the Plus sign on the left and search for Function App.



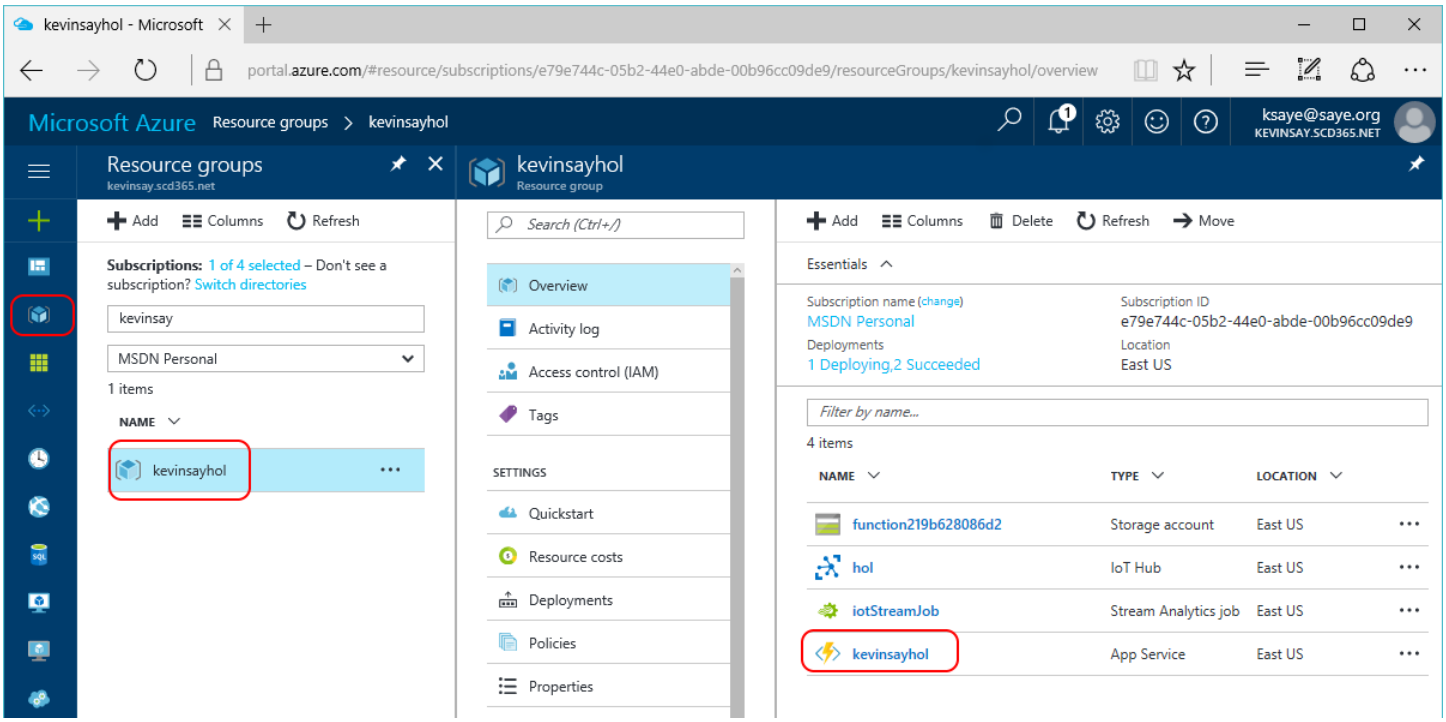

Step 4. Select the Function App by Microsoft and click Create.



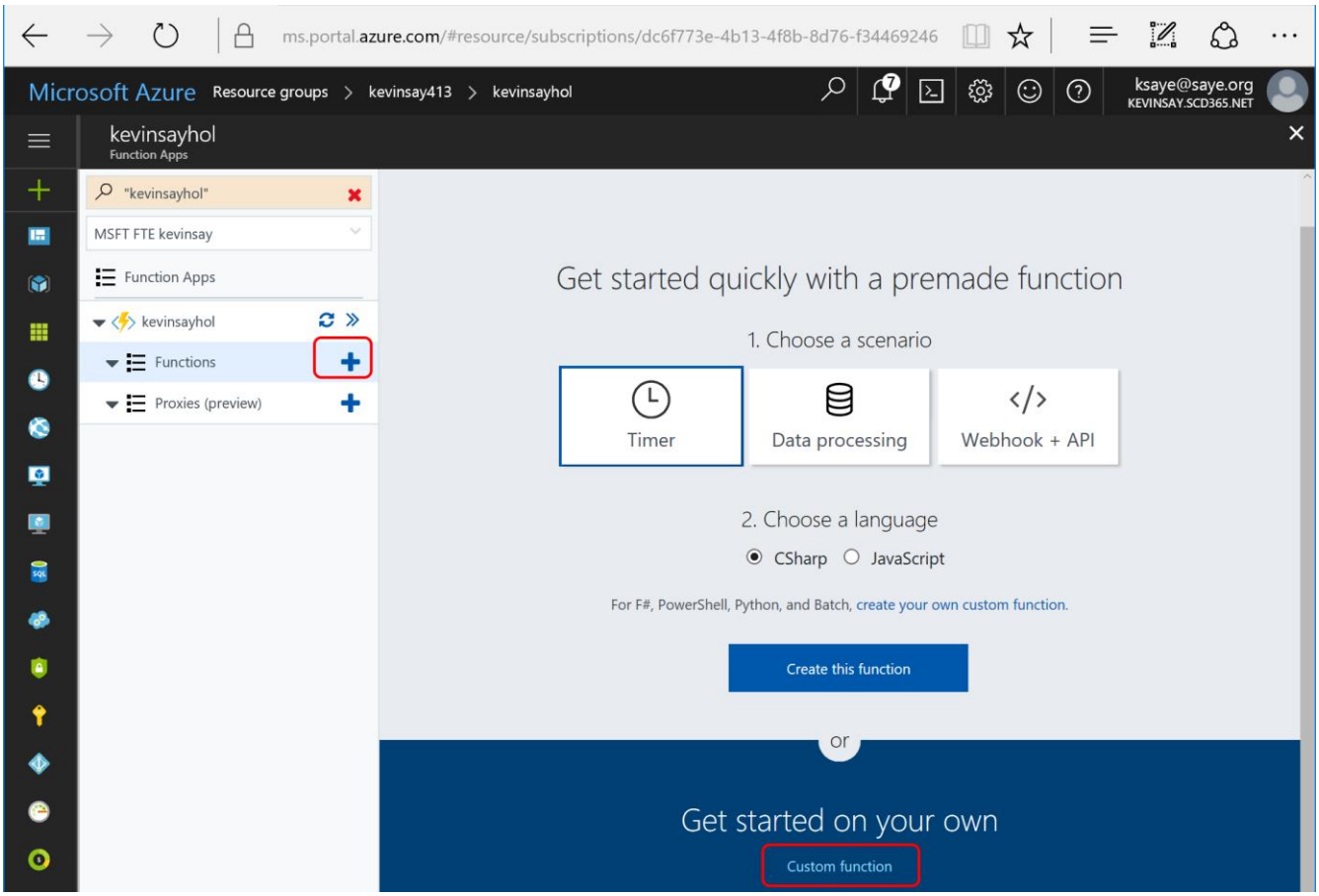
Step 5. Give your function a unique name, select the correct Azure Subscription, select the Resource Group created in the prior lab, make sure it is in the desired location and click create.



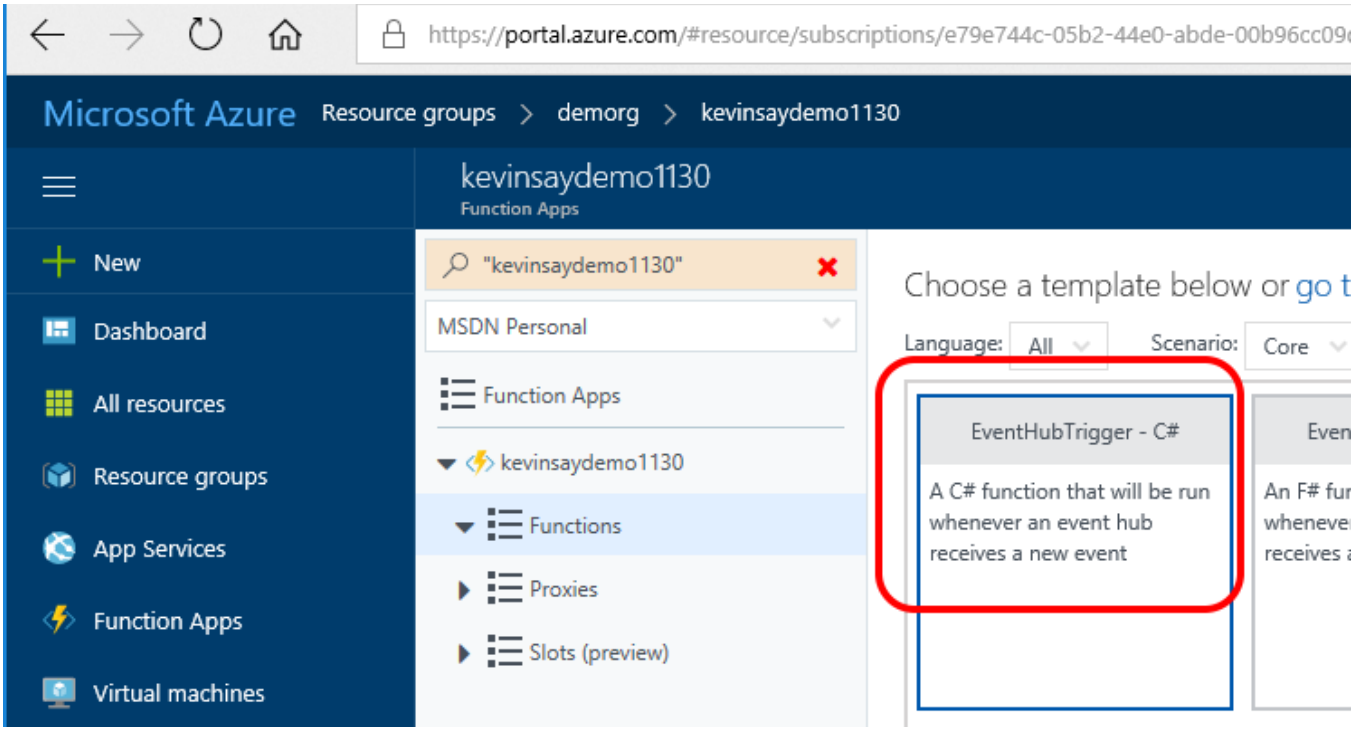
Step 6. After about a minute, click the Resource Group Icon on the left, select the resource group you created and click on the Function just created.



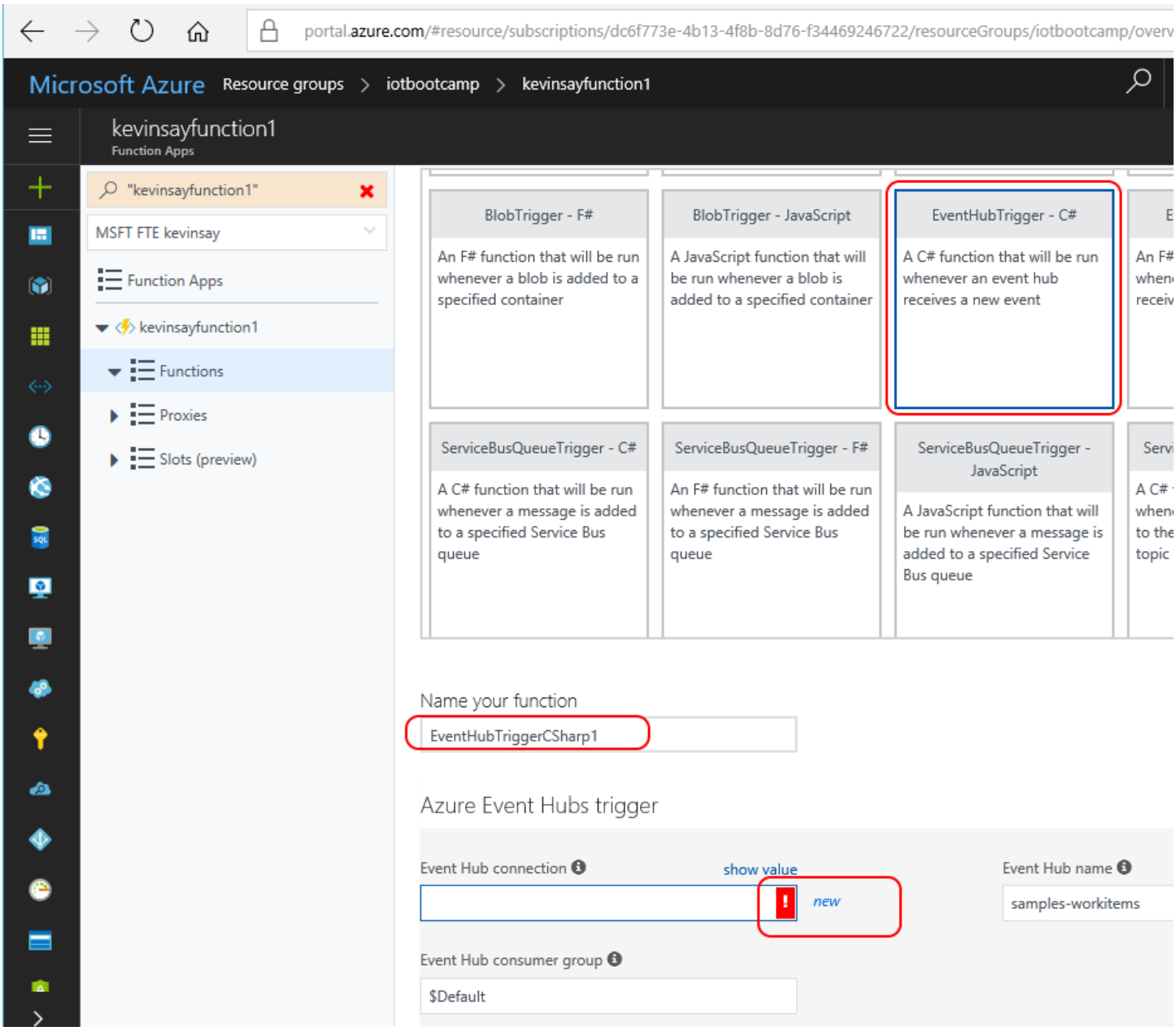
Step 7. Under your function name, click the + sign and click on Custom function.



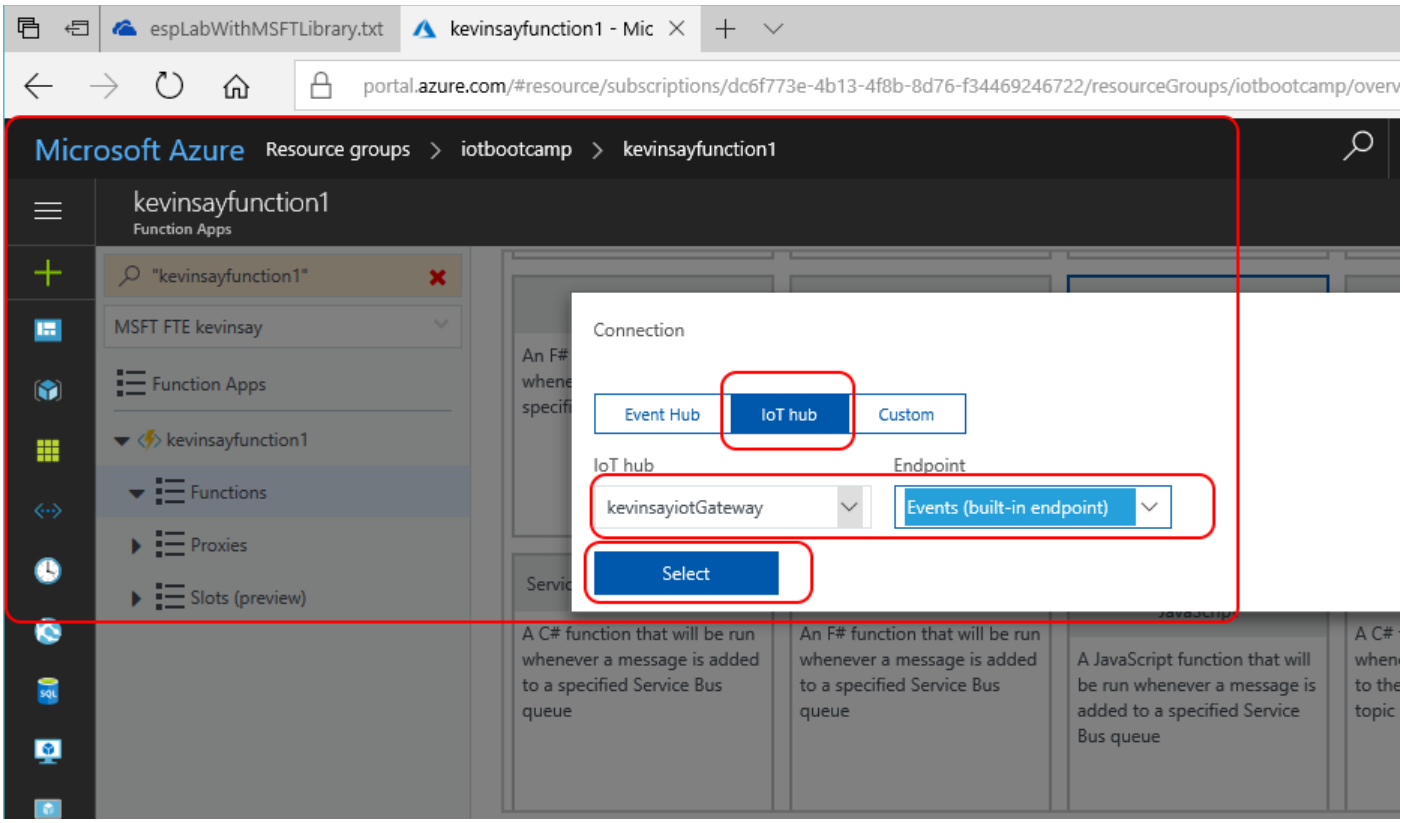

Step 8. Click the “EventHubTrigger - C#” template.



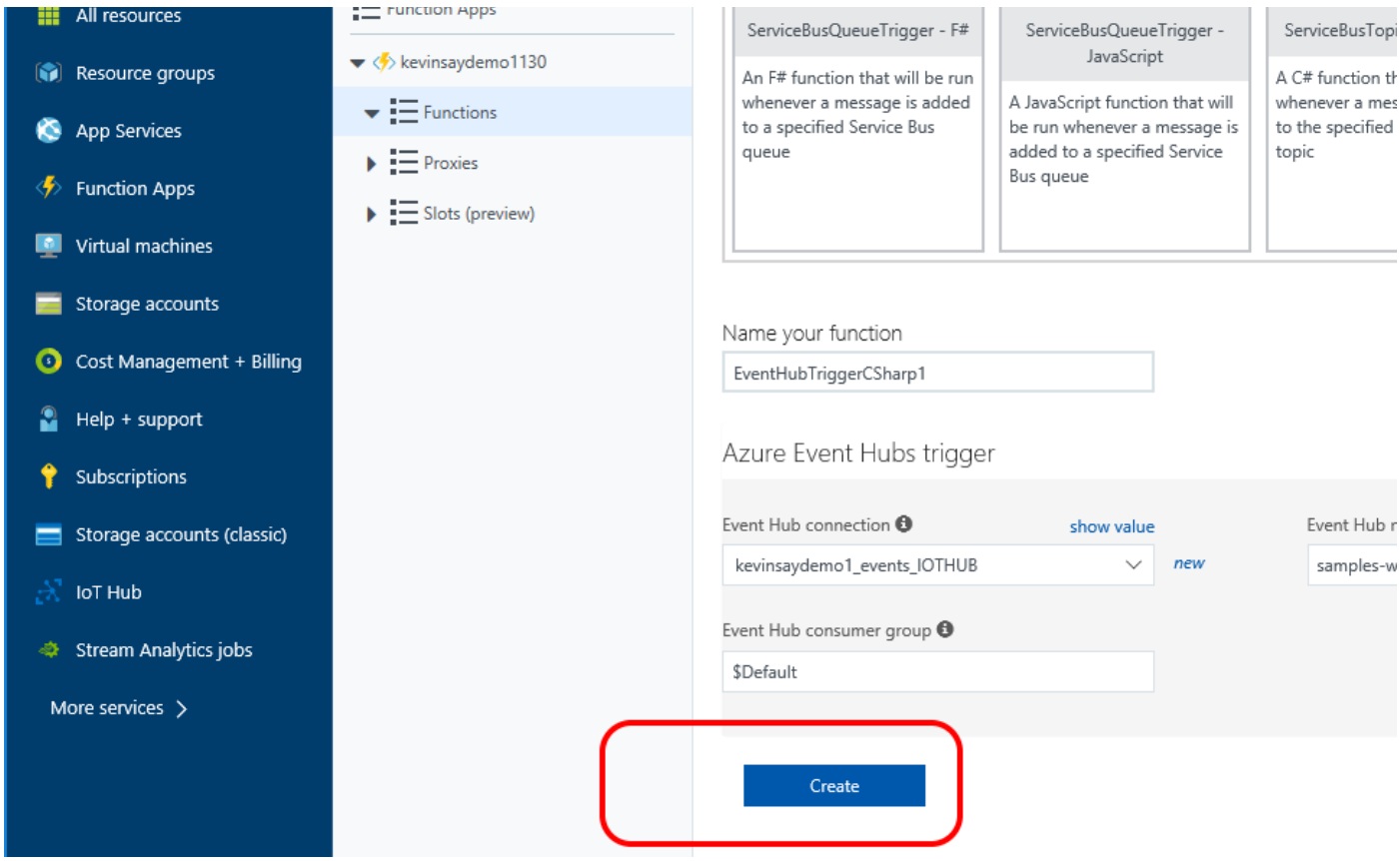
Step 9. Name your function and type in the name of the IoT Hub in the event Hub Name area. Next click new on the Event Hub Connection.



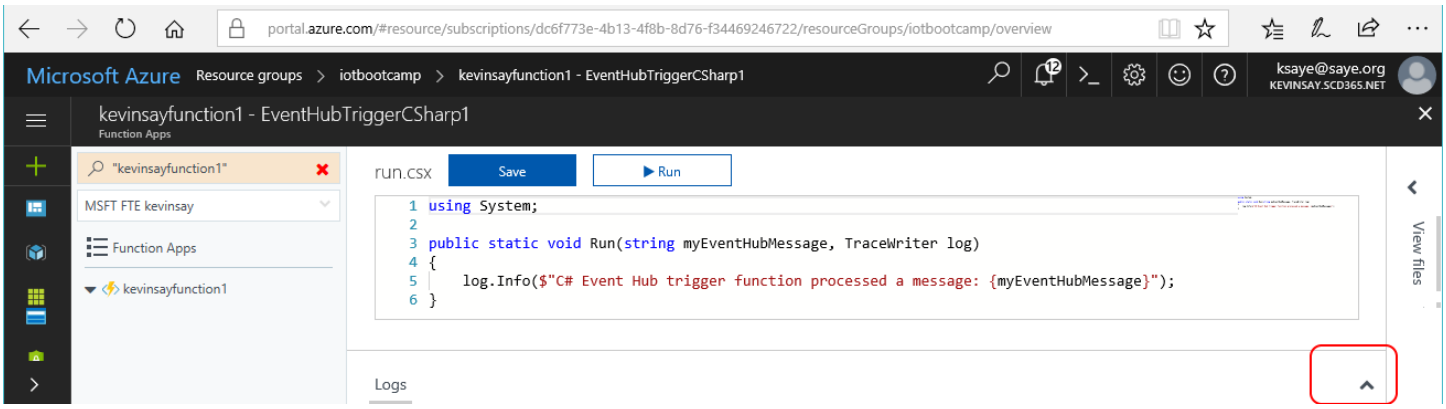
Step 10. At the “Connection” screen, select IoT hub, the name of your hub and then click Select.




Step 11. At the template screen, click create to finally create the Function:

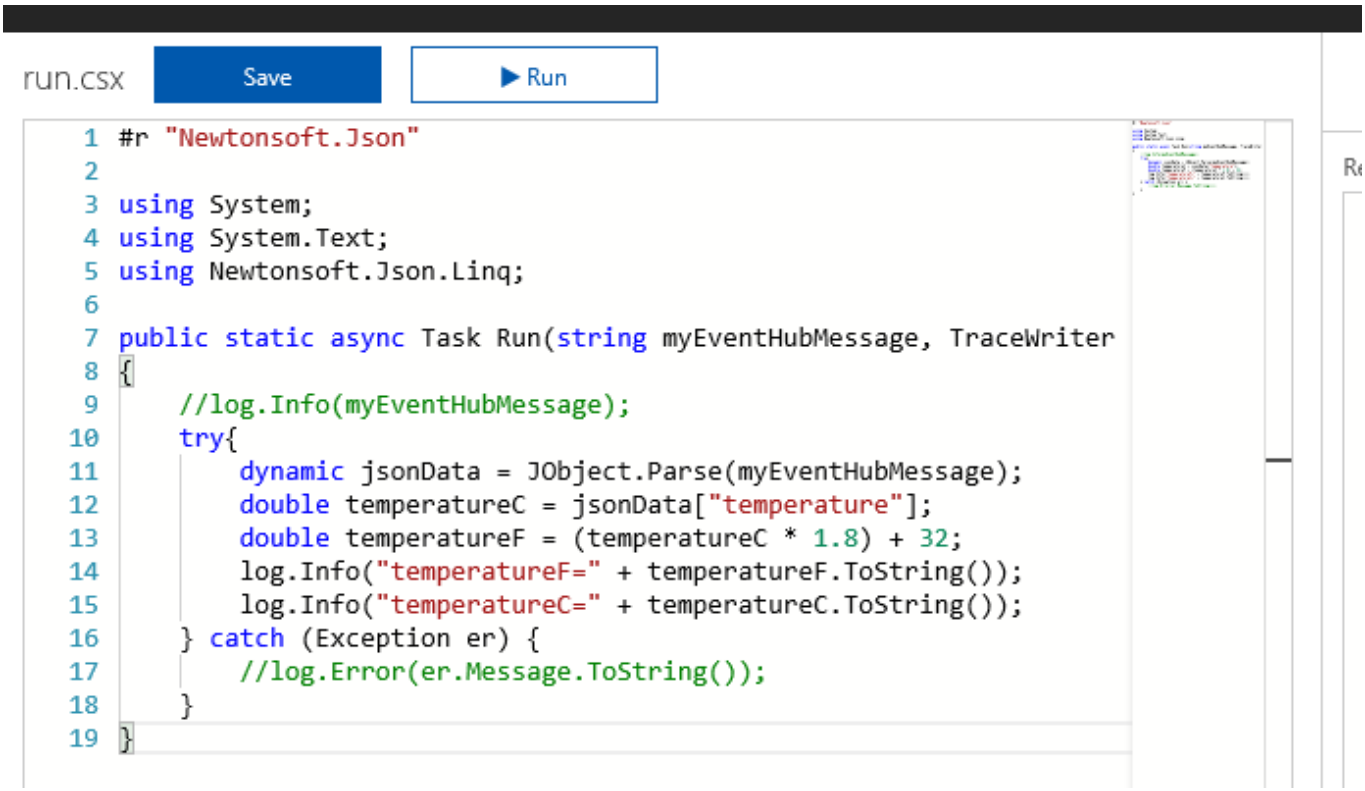


Step 12. When created you will see the default C# code just logs what it finds in the IoT Hub. Click the up arrow in the logs area to see data, as shown below:




If you have data coming in, you will see it logged. If you do not see data, verify that your device is connected and sending data.

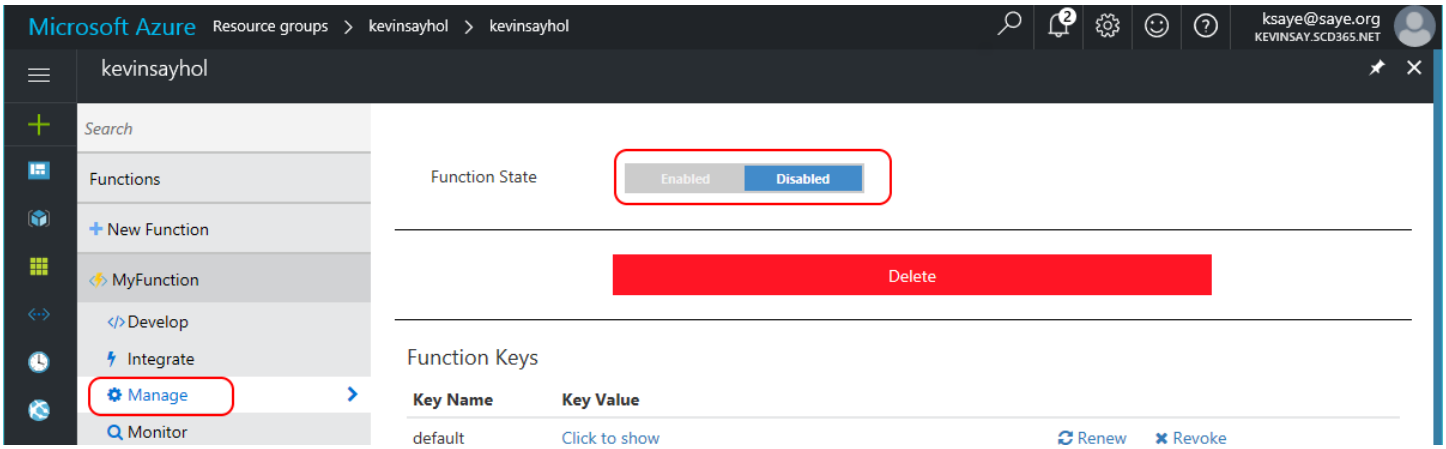
Step 13. Last, simply modify the code as shown below and click Run. You can just copy the content from: https://tinyurl.com/FunctionIoTBC




You should see the output as shown below:

We could also modify the code to call native libraries, save the data to storage, resubmit the data back to IoT Hub, the possibilities are endless. One example (https://github.com/ksaye/IoTDemonstrations/blob/master/DogFoodMonitor/AzureFunction.cs) sends a message to another device, which we will do tomorrow.

Note, because we use the same consumer group as Device Manager and Stream Analytics, we will have a conflict. Either: Disable Azure Function (shown below) or use a different consumer group.




This concludes the lab.