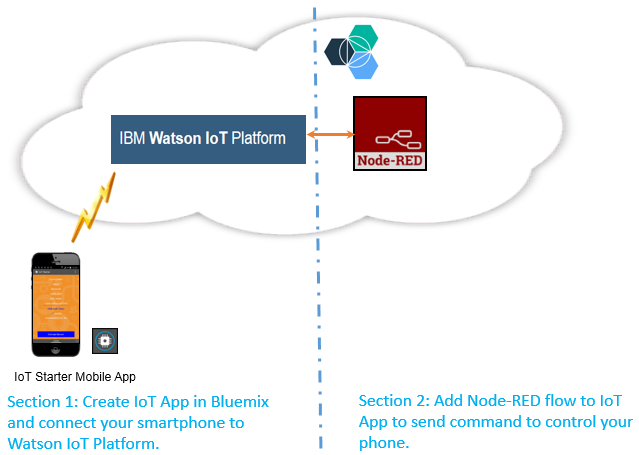
Develop an app using Watson IoT Platform

Bluemix Lab Guide



Experience the power of IBM Bluemix   
Lab 2

Lab 2: Create IoT App that sends a tweet when your phone falls down

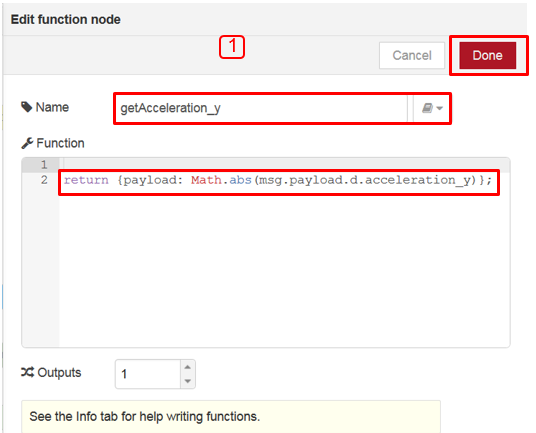


* 1. You are going to build a Node-RED flow that will send notification when your phone falls down. Go to your Node-RED flow and follow the steps 1), 2), 3), and 4) below. You will create the following flow by drag and dropping the appropriate nodes and wiring them as shown below:



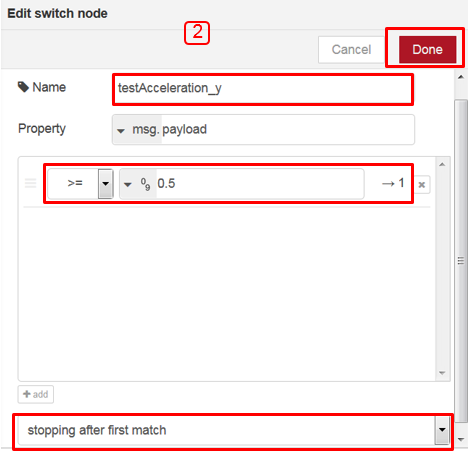
* 1. Extract the “acceleration\_y” value from the JSON payload message

**Drag & drop a “function” node.** In this first box we extract the absolute value of the “**acceleration\_y**” from the smartphone. Double click on the “function” node to open the Dialog box, and fill in like shown below and Click **Ok**:

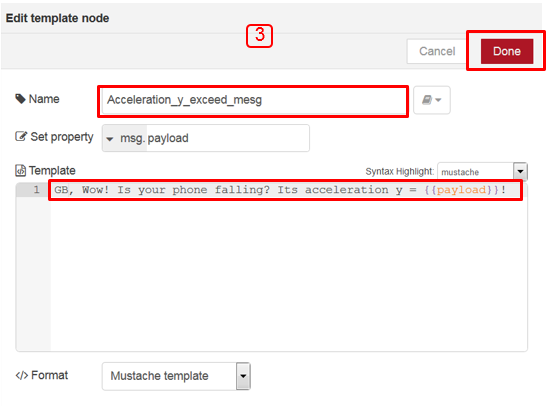


**Code** for cut & paste:  
return {payload: Math.abs(msg.payload.d.acceleration\_y)};

* 1. Trigger against an acceleration value (let’s say **0.5 for iOS** and **7 for Android**). **Drag & drop a “switch” node** and double click on the node to complete the dialog box:



* 1. **Drag & drop a “template” node.** In this third box we prepare the message to be sent for the notification. Since we are using one common Twitter ID to send tweet, you can enter your name at the beginning of the message to identify that the tweet was originated from you.

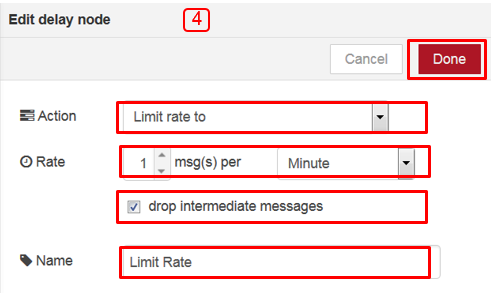
!

|  |
| --- |
| **Code** for cut & paste:  *[Your name here]*, Wow! Is your phone falling?  Its acceleration y = {{payload}}! |

If your name is James, your code will be something like the following. Make sure to include the text “Is your phone falling” in your code for the competition.

|  |
| --- |
| **James**, Wow! **Is your phone falling?**  Its acceleration y = {{payload}}! |

* 1. **Drag & drop a “delay” node.** In this fourth box we limit the number of messages for the notification to 1 per minute in order to avoid duplicate notification messages.



1. To send out a notification via Twitter. **Drag and drop a “twitter out” node** to the flow and wire the “delay” node output to the “debug” node as shown below. (If you not have a Twitter account, you can observe the notification at debug tab)

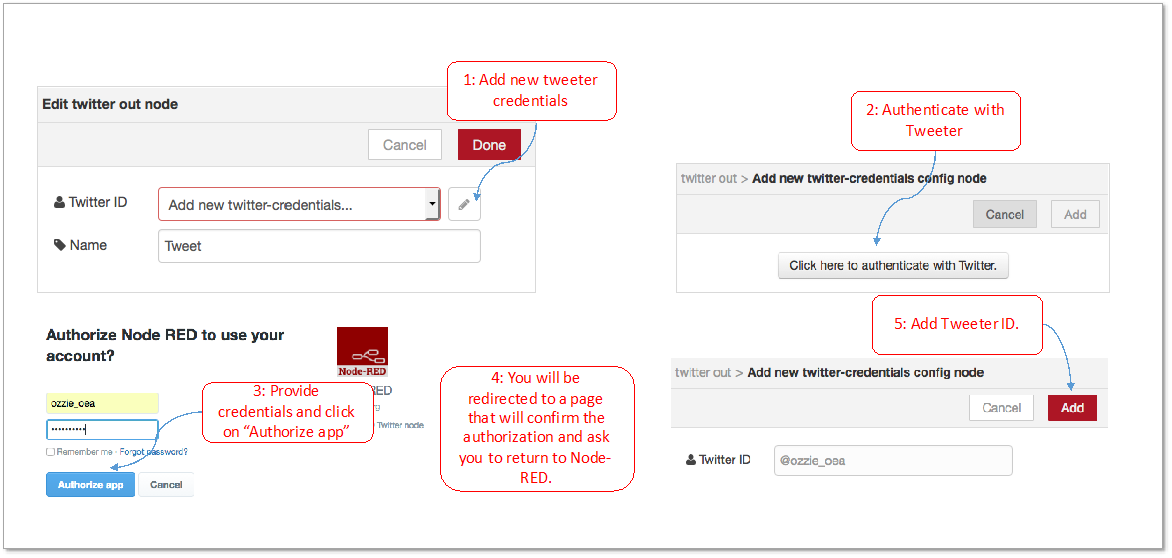


Double click the “twitter out” node to open the dialog box and follow the steps below:

You should use the following username and password instead of your own twitter credentials for the competition.

Username: BLUEMIXLAB

Password: **passw0rd**



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| IMPORTANT: Be careful to wire all your nodes and do not forget to deploy your flow each time you want to test a new version of your flow. When the “Deploy” button  is red it means that something has been updated and needs to be redeployed (The button turns grey which means the flow is deployed). |

At this point, you are now ready to test your Bluemix application:

* Grab your phone, run the IoT Starter App and click on “Activate Sensor”
* Watch the « Debug » window in Node Red
* Stand your smartphone upright and move it quite fast up and down to simulate a falling-down
* Check the « acceleration\_y » in the debug window
* Access your twitter application to see the new tweet message



To stop sending message from smartphone, click on **Deactivate Sensor** from your mobile app.

**Congratulations! You have just completed the lab 2**.

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| **End of Document** |