Lab Center – Hands-On Lab – Self-Deployment

Session 1239 - IBM Think2020 IoT Lab

Hyper-Local Weather and Crop prediction using Watson:

Self-Deployment of the Code/LAB at HOME ;)

Markus van Kempen – mvk@ca.ibm.com

20200501

DISCLAIMER

IBM's statements regarding its plans, directions, and intent are subject to change or withdrawal without notice at IBM's sole discretion. Information regarding potential future products is intended to outline potential future products is intended to outline our general product direction and it should not be relied on in making a purchasing decision.

The information mentioned regarding potential future products is not a commitment, promise, or legal obligation to deliver any material, code or functionality. Information about potential future products may not be incorporated into any contract.

The development, release, and timing of any future features or functionality described for our products remains at our sole discretion I/O configuration, the storage configuration, and the workload processed. Therefore, no assurance can be given that an individual user will achieve results like those stated here.

Information in these presentations (including information relating to products that have not yet been announced by IBM) has been reviewed for accuracy as of the date of initial publication and could include unintentional technical or typographical errors. IBM shall have no responsibility to update this information. **This document is distributed "as is" without any warranty, either express or implied. In no event, shall IBM be liable for any damage arising from the use of this information, including but not limited to, loss of data, business interruption, loss of profit or loss of opportunity.** IBM products and services are warranted per the terms and conditions of the agreements under which they are provided.

IBM products are manufactured from new parts or new and used parts. In some cases, a product may not be new and may have been previously installed. Regardless, our warranty terms apply."
Any statements regarding IBM's future direction, intent or product plans are subject to change or withdrawal without notice.

Performance data contained herein was generally obtained in controlled, isolated environments. Customer examples are presented as illustrations of how those customers have used IBM products and the results they may have achieved. Actual performance, cost, savings or other results in other operating environments may vary. References in this document to IBM products, programs, or services does not imply that IBM intends to make such products, programs or services available in all countries in which IBM operates or does business.

Workshops, sessions and associated materials may have been prepared by independent session speakers, and do not necessarily reflect the views of IBM. All materials and discussions are provided for informational purposes only, and are neither intended to, nor shall constitute legal or other guidance or advice to any individual participant or their specific situation.

It is the customer's responsibility to insure its own compliance with legal requirements and to obtain advice of competent legal counsel as to the identification and interpretation of any relevant laws and regulatory requirements that may affect the customer's business and any actions the customer may need to take to comply with such laws. IBM does not provide legal advice or represent or warrant that its services or products will ensure that the customer follows any law.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products about this publication and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products. IBM does not warrant the quality of any third-party products, or the ability of any such third-party products to interoperate with IBM's products. **IBM expressly disclaims all warranties, expressed or implied, including but not limited to, the implied warranties of merchantability and fitness for a purpose.**

The provision of the information contained herein is not intended to, and does not, grant any right or license under any IBM patents, copyrights, trademarks or other intellectual property right.

We Value Your Feedback

Don’t forget to submit your Think 2020 session and speaker feedback! Your feedback is very important to us – we use it to continually improve the conference.

Access the Think 2020 agenda tool to quickly submit surveys from your smartphone or laptop.

Table of Contents

Objective

This document describes how to deploy the Node-RED code to IBM Cloud as well provision automatically a Node-RED, IoT instance and a Cloudant database.

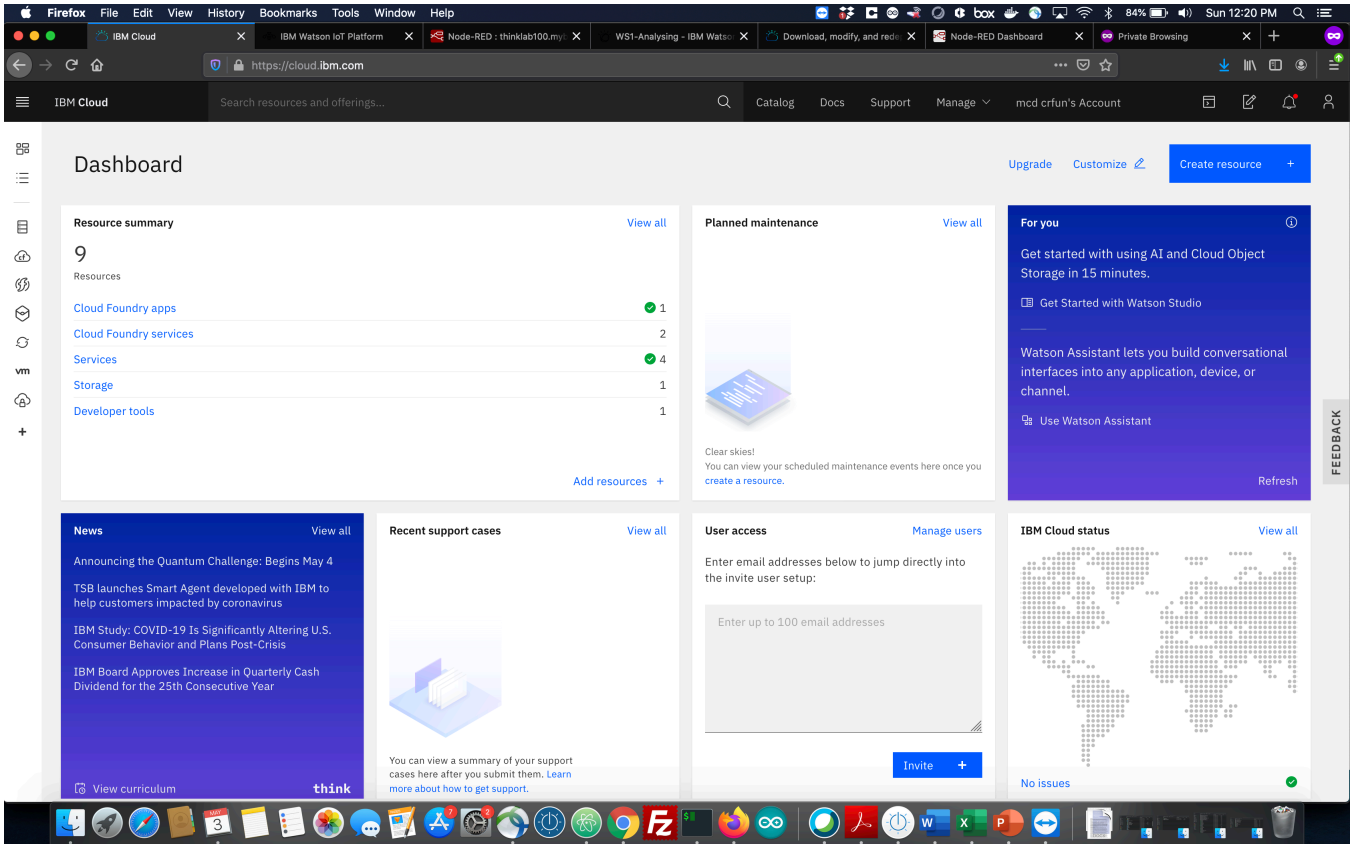
Note: You can run this LAB and the excerises on your own desktop using a local installation of Jupyter Notebook and Node-RED. You can also mix this LAB with different Jypter Notebook environments like colab and kaggle. Just import the notebooks from the github into you environment of choice. Below are the instruction for the deployment to IBM cloud.

1. Prerequisite

Sign up for a free IBM Cloud account here https://cloud.ibm.com/

2. Deployment

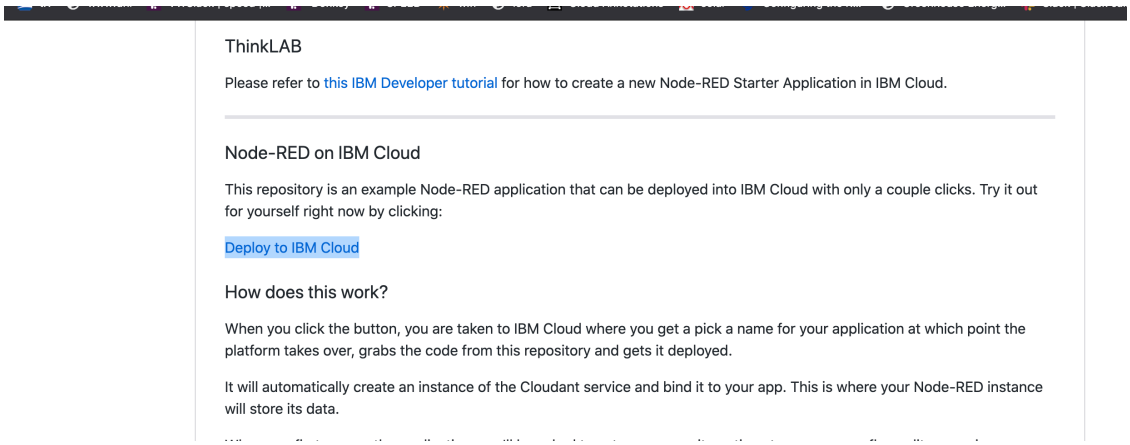
Once you signed up, you should see a screen like below



Open a new browser window and go to the following github url.

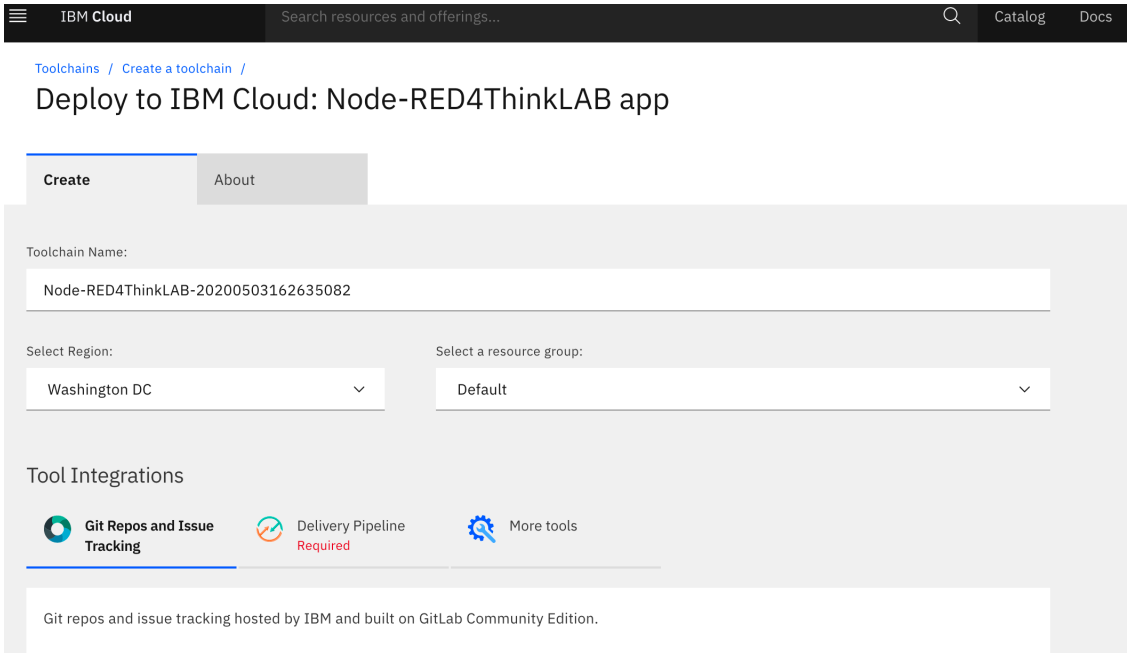
https://github.com/markusvankempen/Node-RED4ThinkLAB

scroll down a little and you will see a link called “Deploy to IBM Cloud”



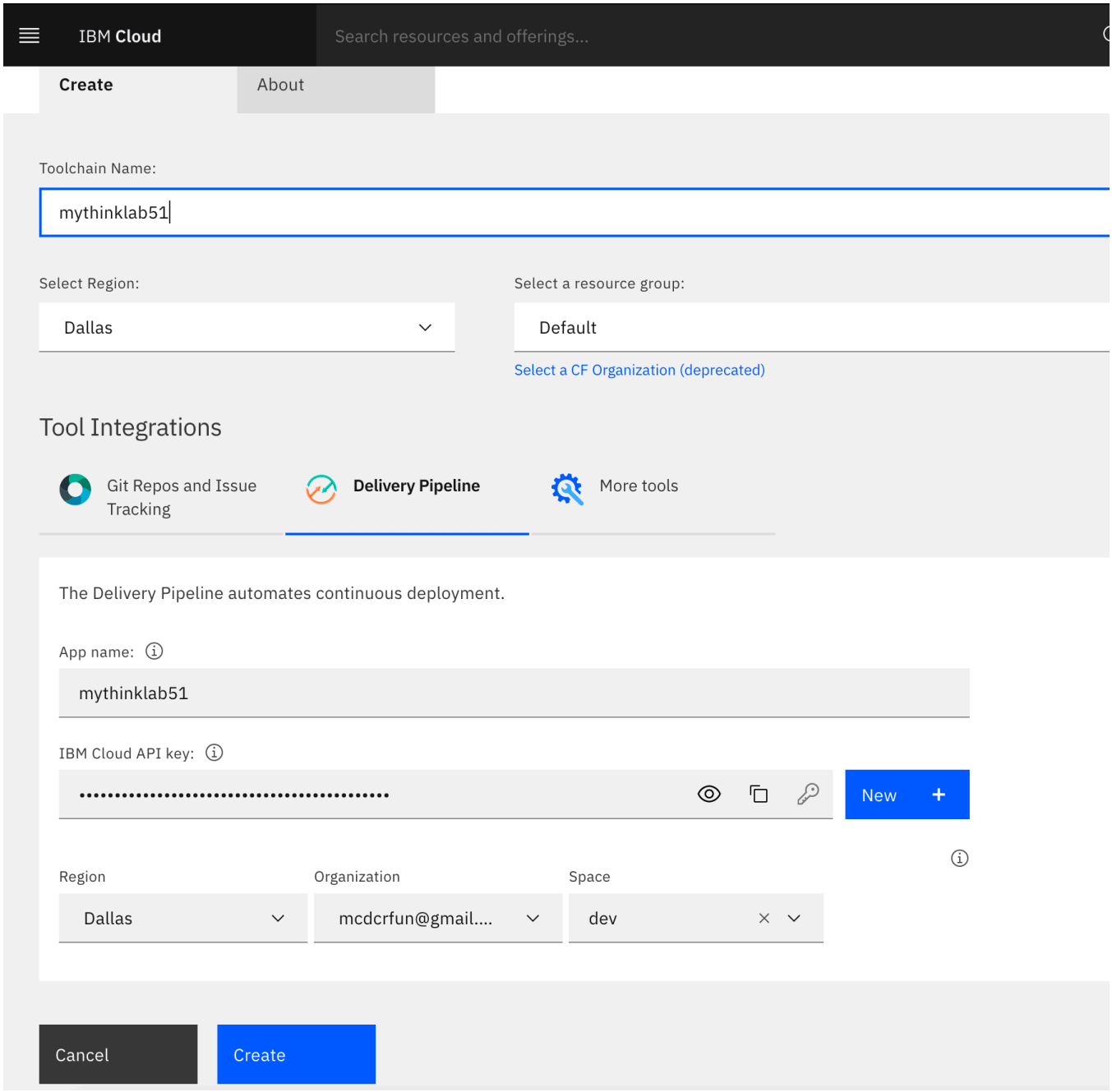
Once you click the button it will redirect to the IBM cloud environment and start the deployment process.

You should see a Screen like this:



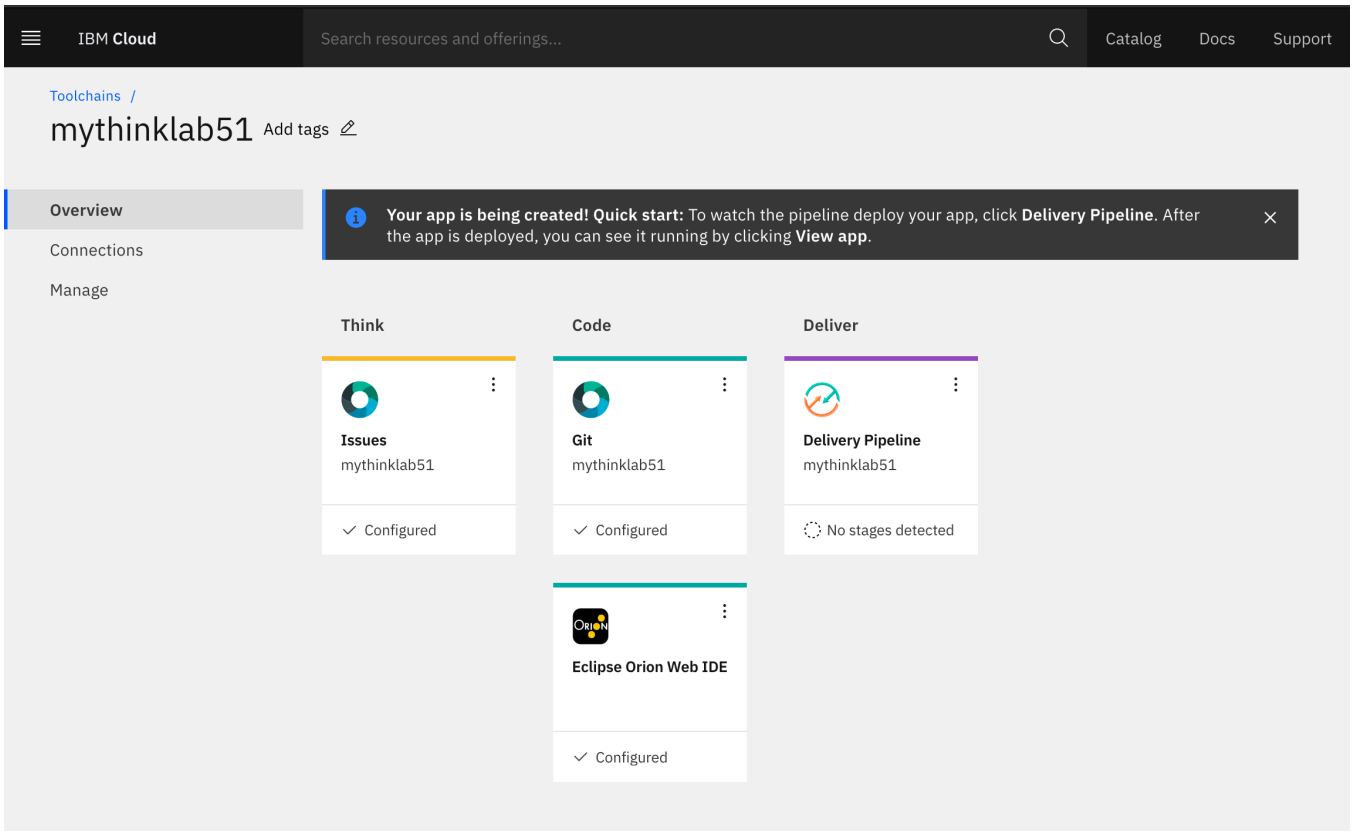
Fill out the fields and follow the steps and prompts. I changed the Toolchain name and App name to something like “tinklab**YourInitials**”. The system will also prompt you to generate some keys etc. just follow the steps.

Once all is filled out you should see the screens like below and have a create button available.

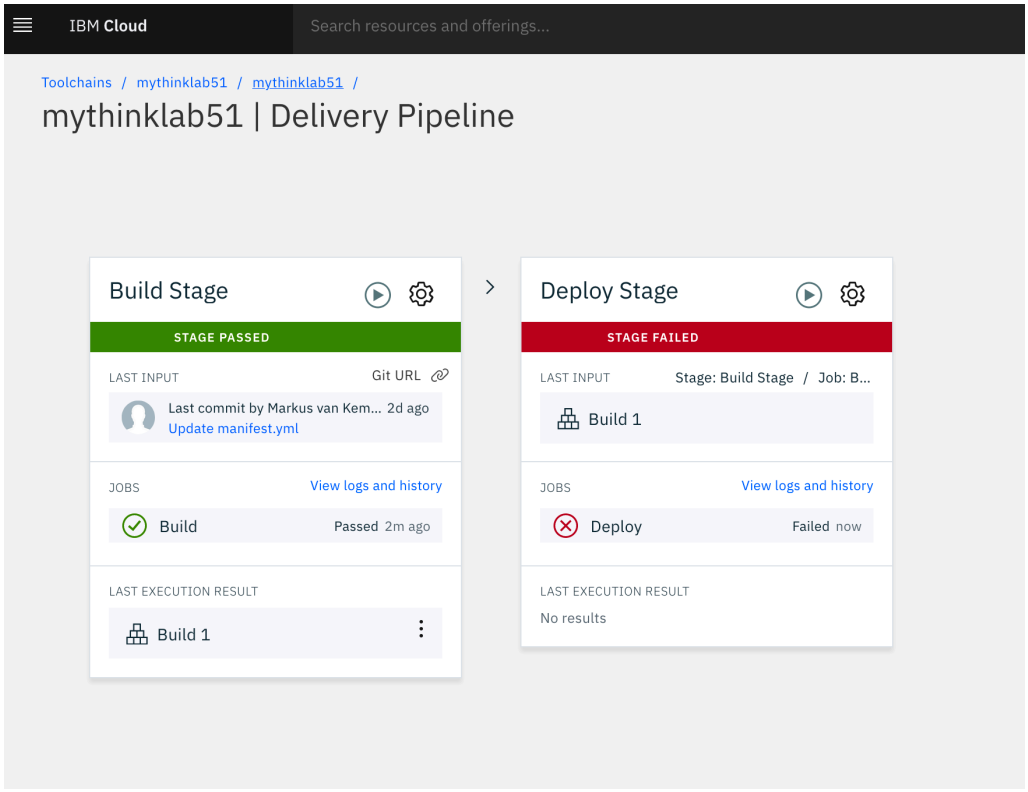


Click the create button and you will be redirected to a different screen e.g toolchain

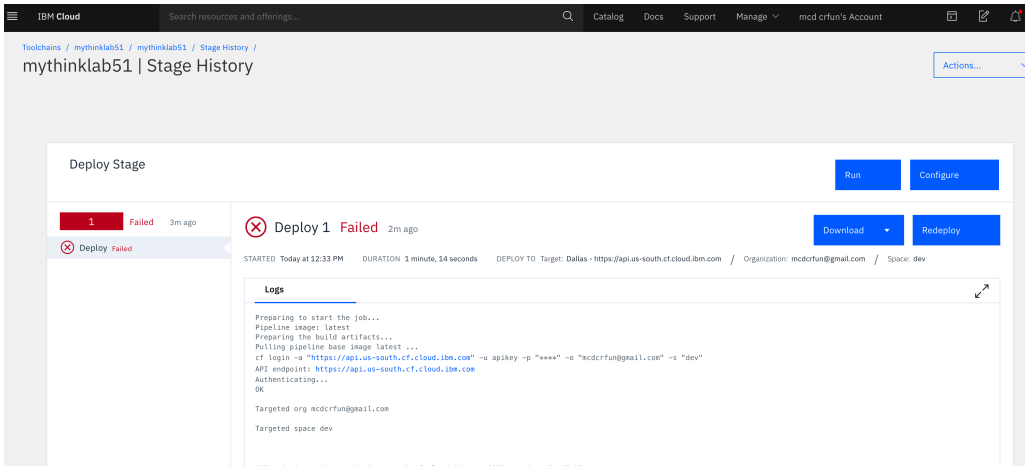
Now the system will deploy the github code by parsing/processing the information of the manifest.yml file from the github repository



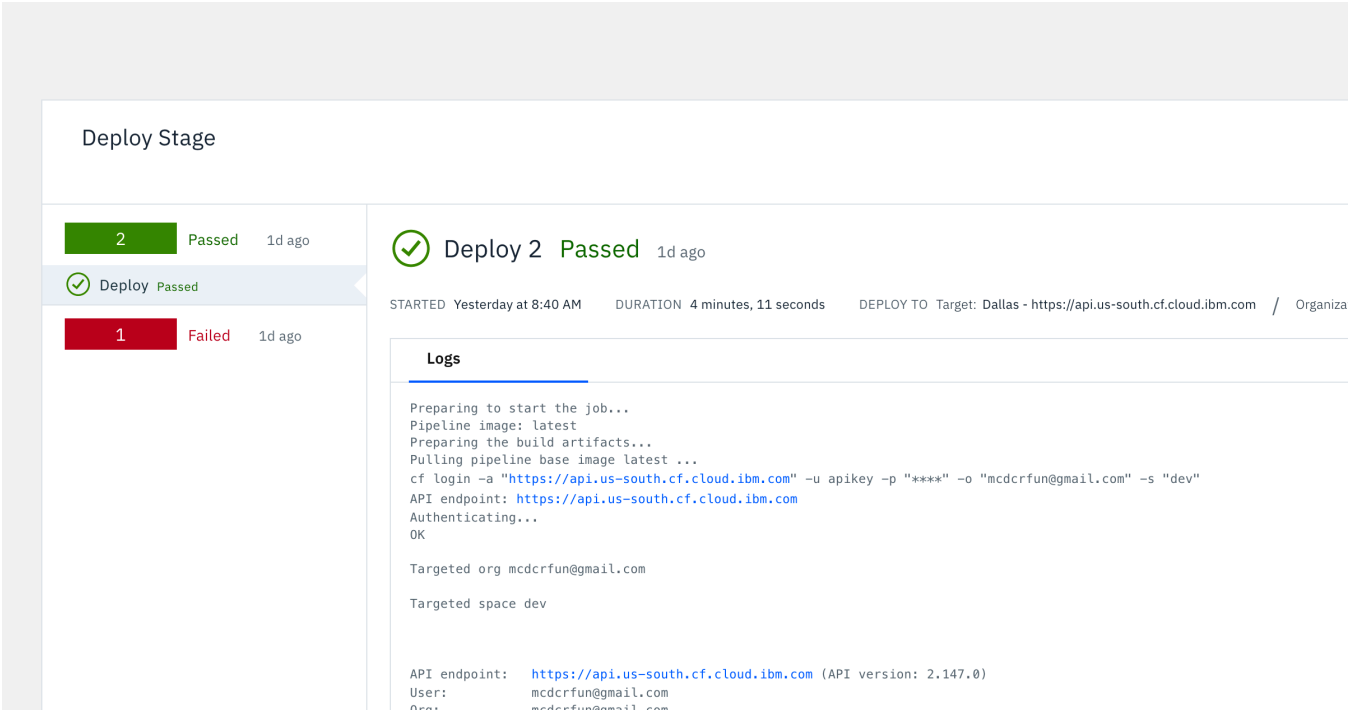
Click on the delivery pipeline icon and check if the code deployment with running thru and finishes successful.

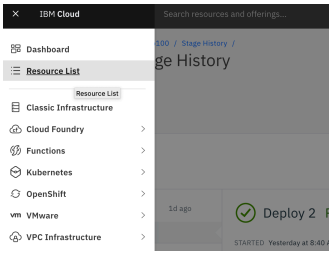


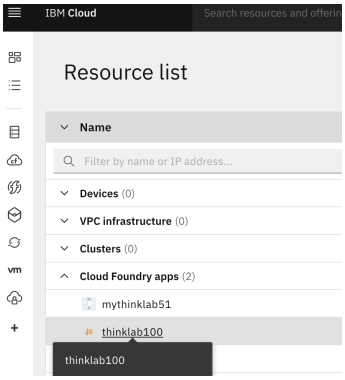
Sometimes is does not run through the whole chain at once and you have to re-run the deployment. Check the log of the deployment stage and click the redeploy button



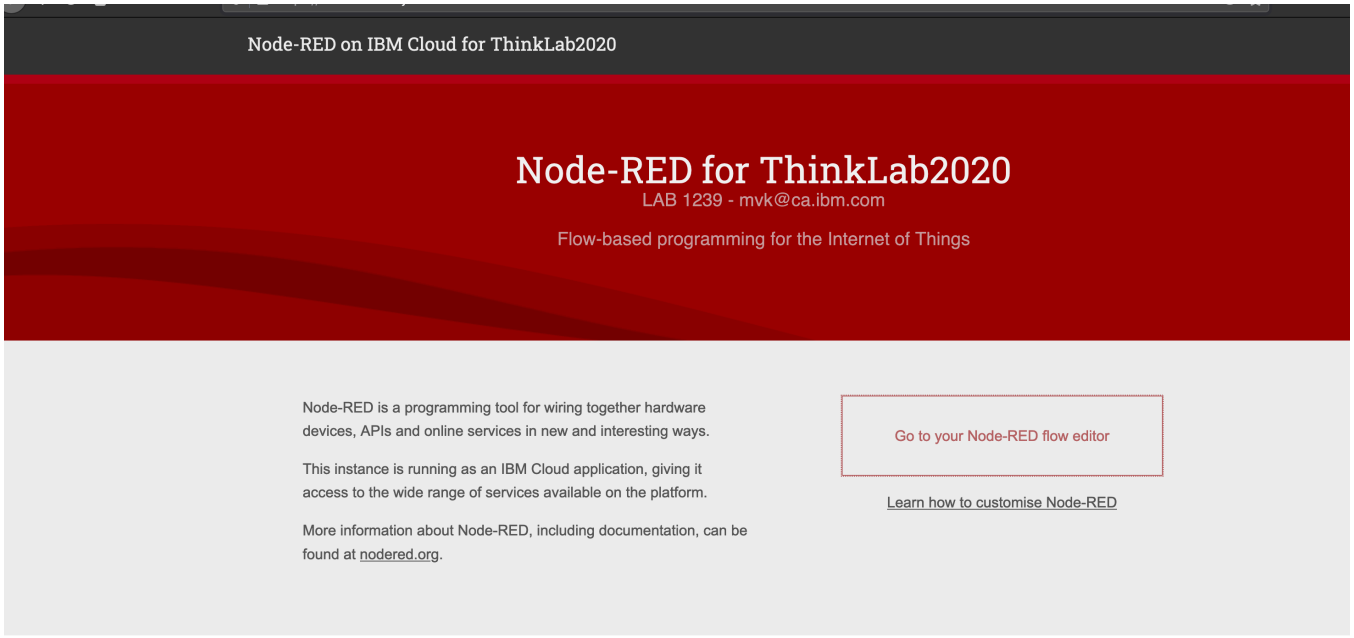
Once the deployment is passed. You can go back to the Resource list via the burger menu and launch your Node-RED instance.

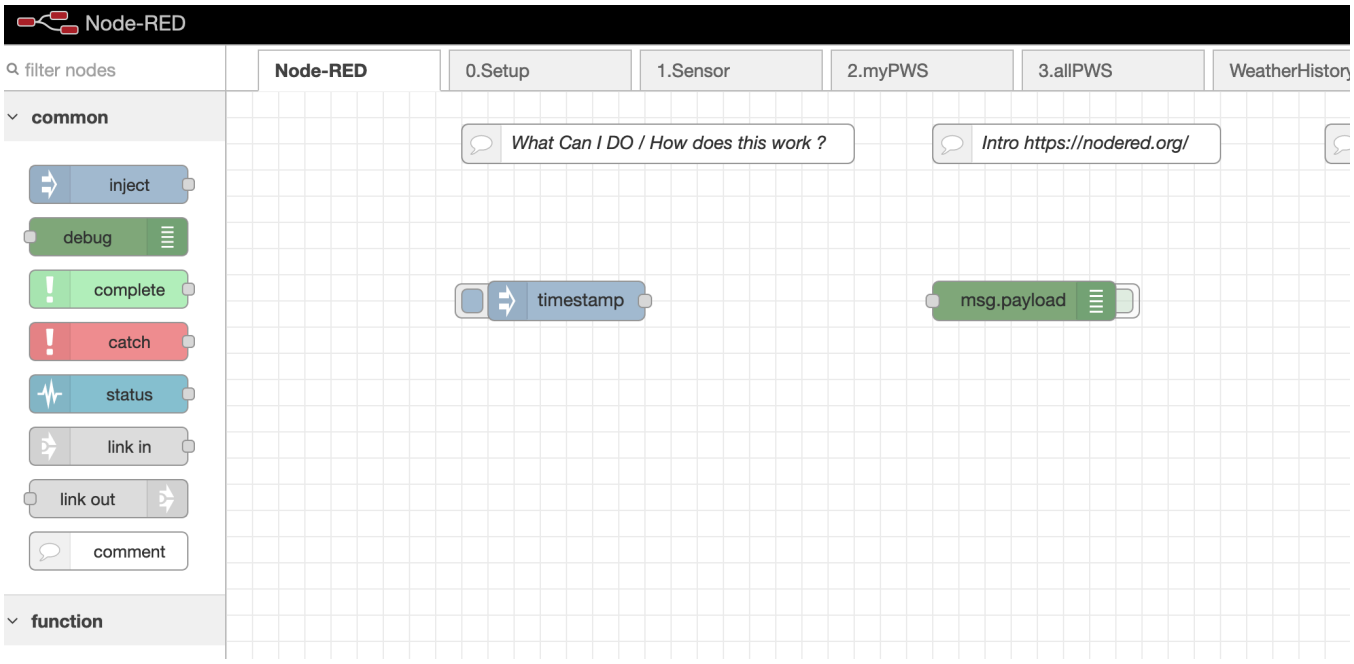






Node-RED will prompt you to setup a username and password. Once that is done you can see Node-RED and the Node-Flow which are automatically deployed.
URL is something like **thinklabYourInitials**.mybluemix.net





That's it - now you can follow the LAB instruction here …
https://github.com/markusvankempen/ThinkLab1239/tree/master/instructions

For more for information look at the github repository
https://github.com/markusvankempen/ThinkLab1239

Cheers

Markus van Kempen

mvk@ca.ibm.com

Version:20200501