IBM Cloud

IBM CLOUD

IBM
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IBM Cloud

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IBM Cloud

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Using IBM Cloud and Watson API to Create an Application

Prerequisites

Signed up for an IBM ID Through IBM Watson Studio free trial at:
http://bit.ly/wplwatsonstudio

Click sign-up for a free trial and follow the steps on the page. You will need to confirm your account via an email that is sent and then login to your account once it is verified.

Purpose of this Lab

The purpose of this lab is to analyze pictures using Watson Visual Recognition.

By the end of this lab, you will be familiar with the following:

- Navigating IBM Cloud Platform
- Launching Services from IBM Cloud
- Using Watson API and creating an application with Node-RED

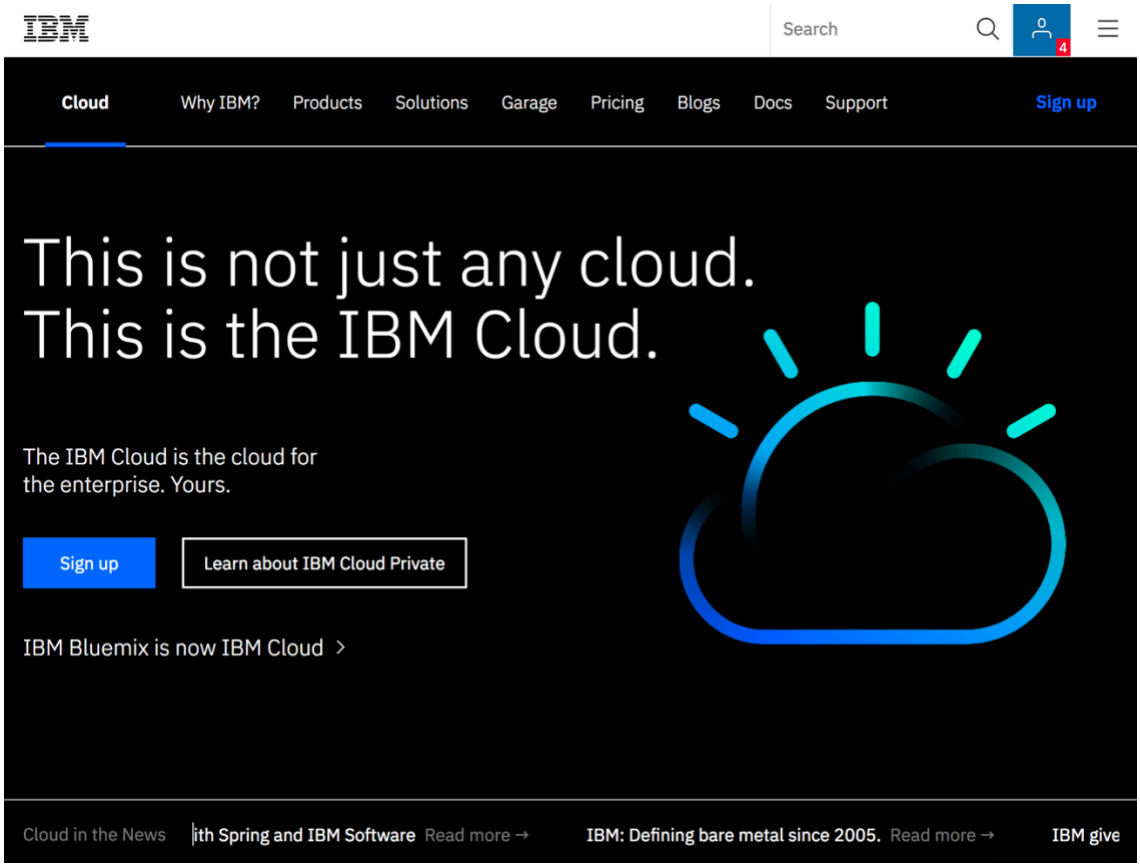
Part 1: IBM Cloud

Signing Up for IBM Cloud

a. Go to https://www.ibm.com/cloud/

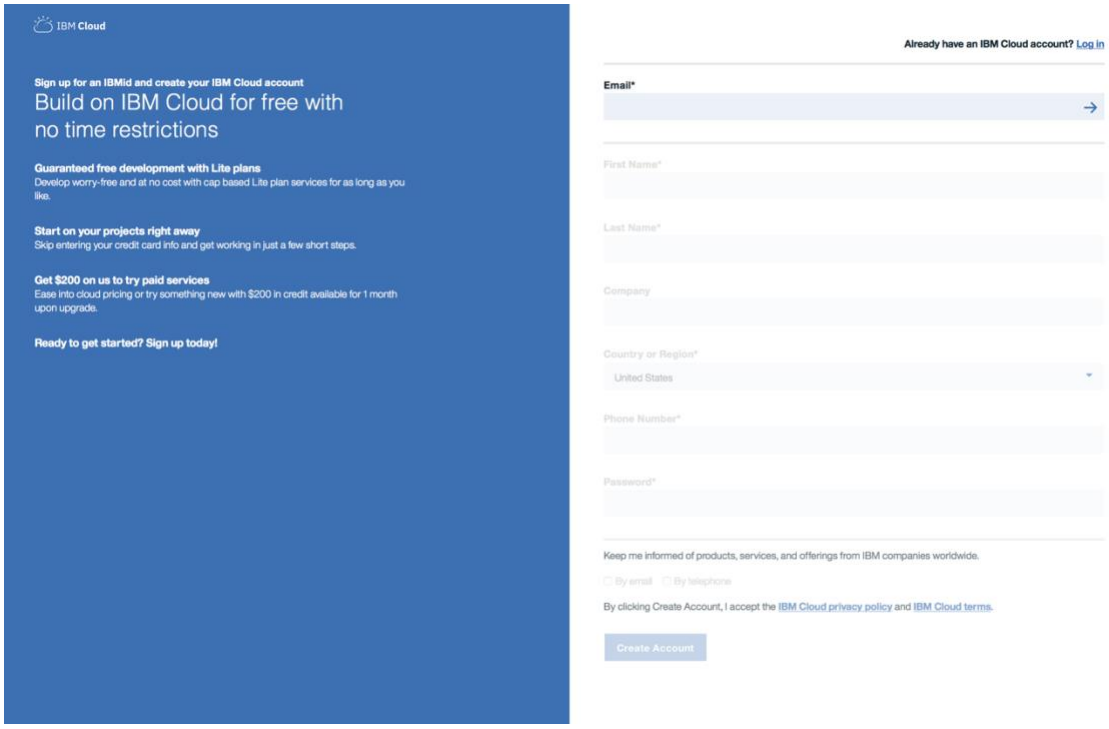
b. We are going to sign up for a free IBM Cloud account.

c. Click “Sign up”.



a. Fill in the required boxes.

b. Click “Create Account”.



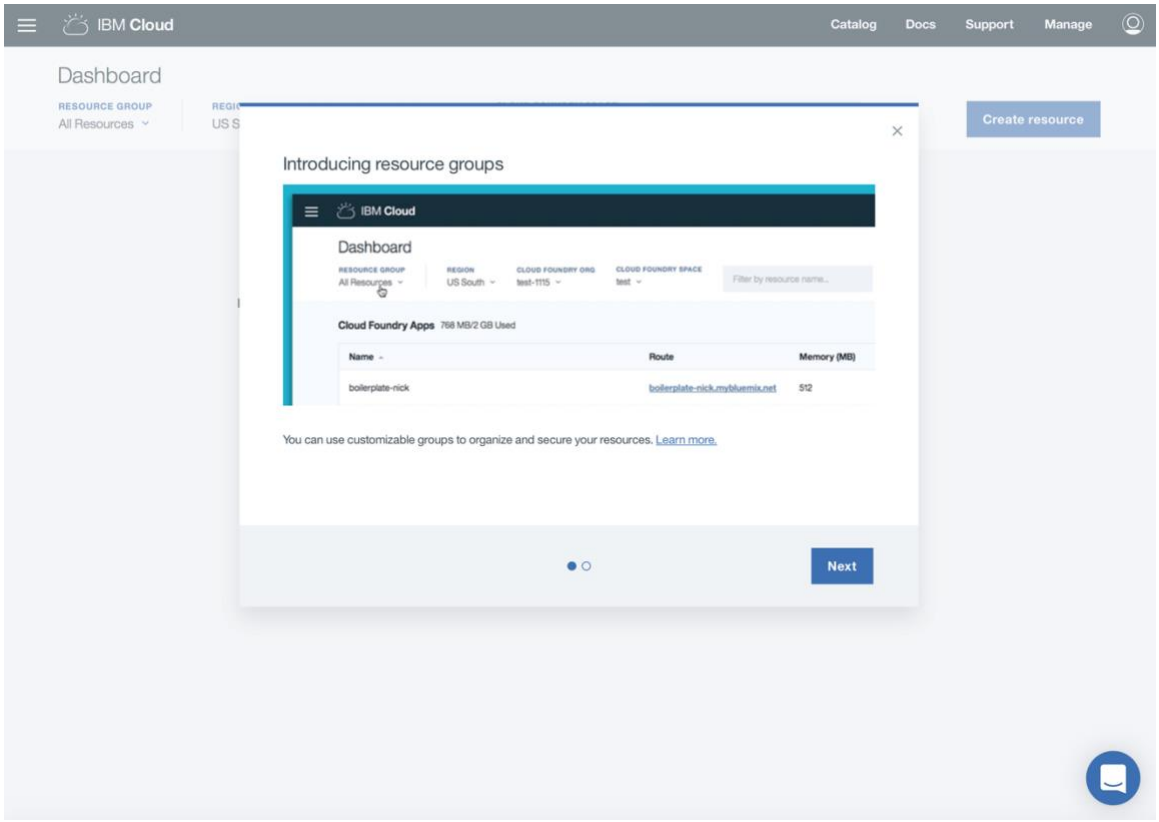
Note: You may be required to verify your account from the email addresses provided in the registration page.

Navigating the IBM Cloud Platform

a. Log into IBM Cloud at https://console.bluemix.net/dashboard/apps/

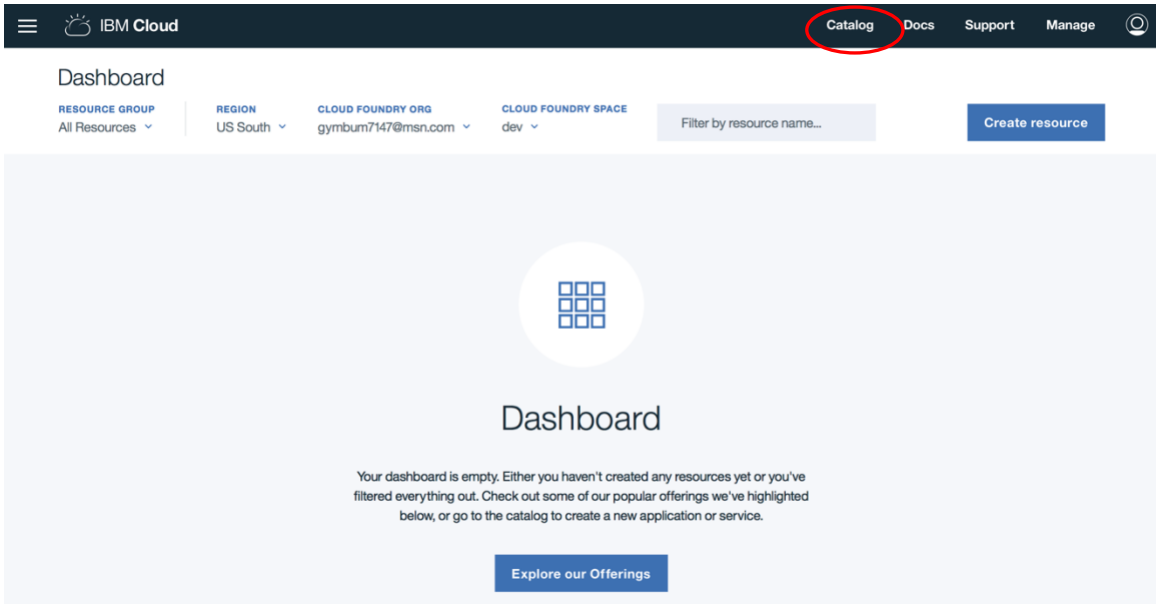
If this is the first time you are using IBM Cloud (formerly Bluemix), an introduction window will appear, feel free to read it. Otherwise, click through.

b. Click “Next”, Click “Finish”.

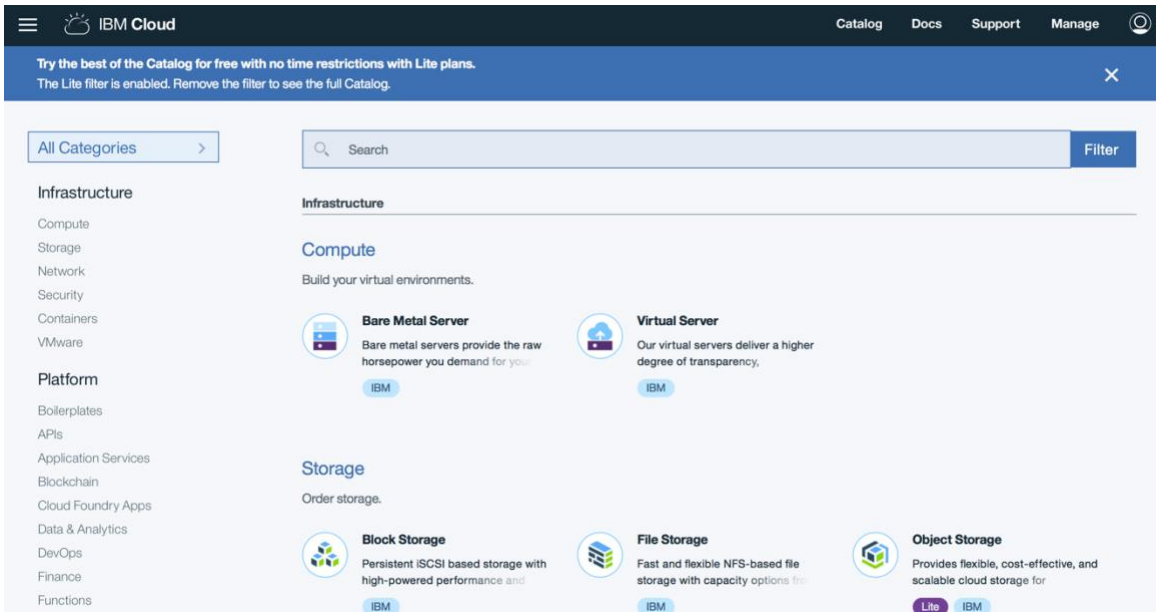


c. We are now looking at the IBM Cloud Dashboard.

d. Click on the “Catalog” button found in the upper right hand corner of the screen.



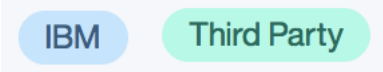
e. The Catalog is a compilation of the services offered on the IBM Cloud.



As you look around the catalog, there are a few places to observe. The page is laid out for simple navigation. We already selected the Catalog button to open the Catalog. The Docs link provides details on each of the services. We will touch on this when we initialize our service here in a bit. The Support page is available to answer any questions that cannot be found in Docs. And lastly Manage is where you can manager your account Space and Organization. You can have multiple Spaces. This is a way to keep different projects organized.

Services are organized in categories. These include Infrastructure, Compute, Storage, Watson, etc. Each service will have a title, icon, brief explanation of the service, and either a blue or green oval.

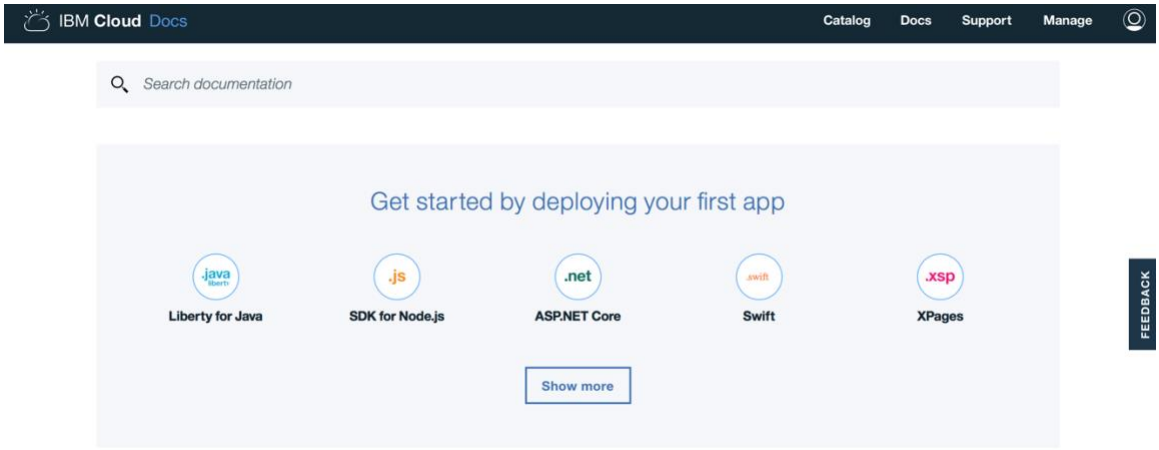
f. IBM Cloud supports both IBM products and services, as well as third-party. They are indicated by the small ovals below each service description.



Going along the same navigation bar as we found the catalog, we can see docs, support and manage.

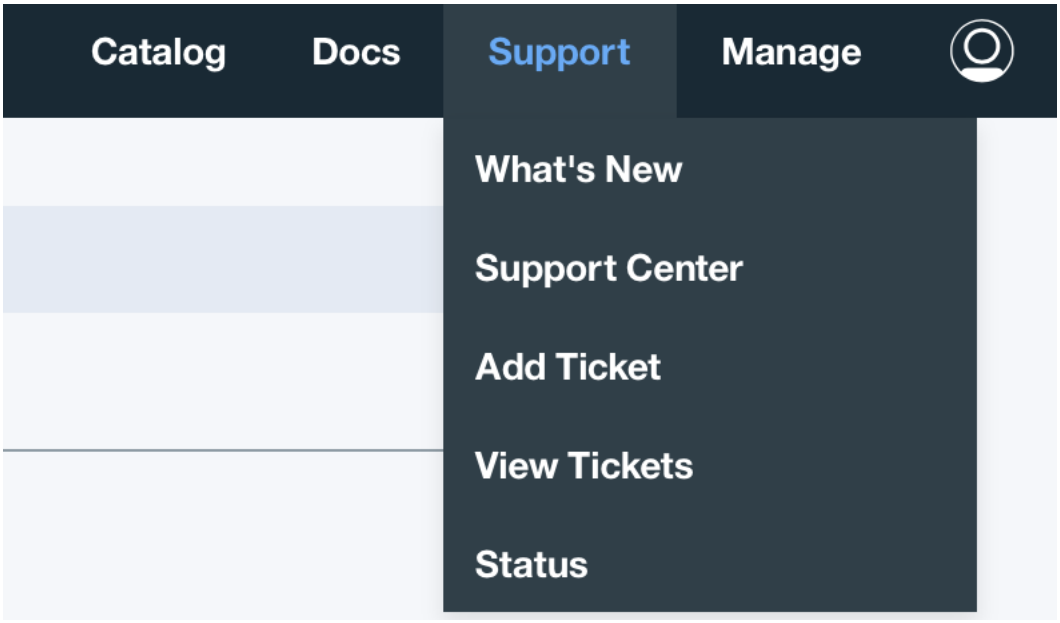
g. Click on “Docs”.

This is the first “go to” resource if you have questions about any of the services. IBM Cloud Docs houses tutorials, demo’s, videos, starter kits…if you have questions about a service, this is a great resource. Scrolling down you can see that there are numerous links. Each service has a link. Click on one to look at the type of documentation. The documentation ranges from “getting started” and high level “what is this service” to technical details about deploying the services.



h. Click on “Support”.

Support is a next level of information and help. When you click on it, it will display a drop down menu. If the answers cannot be solved by looking for Docs OR if an emergency situation arises with one of the services, this is where you go to open a ticket. Once the ticket is open, this is also where you can see the status of your tickets. The “What’s new” tab will show you what is new on IBM Cloud. This is where you can go to see recent updates or releases on services.



i. Click on “Manage”.

Manage is where you can keep track of your own account, billing and usage and security. Within the account tab, you can monitor users, groups, organizations, etc.

j. Click on the head icon.

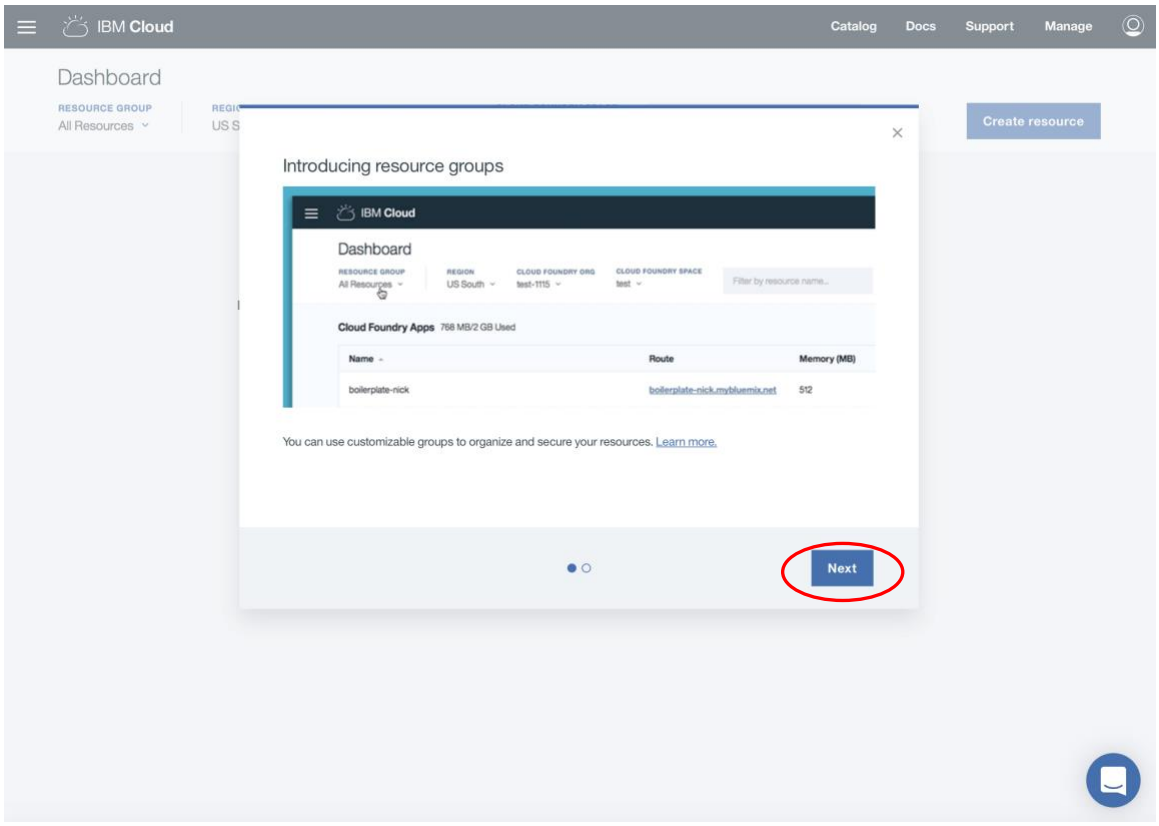
Finally, the head icon will bring you to your personal account page. This is another way to access and manage your accounts such as organizations you are a part of or spaces you are working in.

Provisioning Services on IBM Cloud

1. Log into IBM Cloud at https://console.bluemix.net/dashboard/apps/

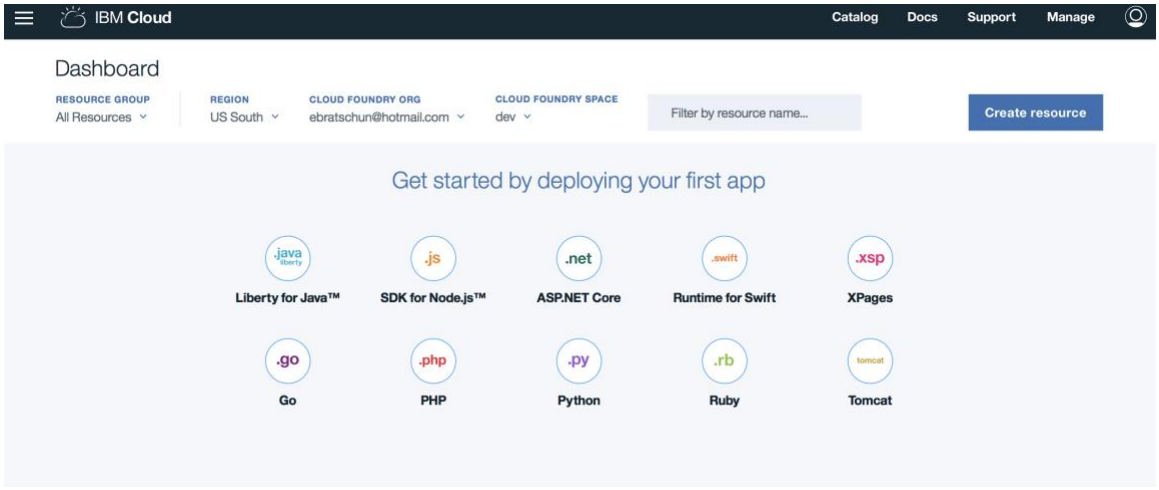
If this is the first time you are using IBM Cloud (formerly Bluemix), an introduction window will appear, feel free to read it. Otherwise, click through.

2. Click “Next”, Click “Finish”.

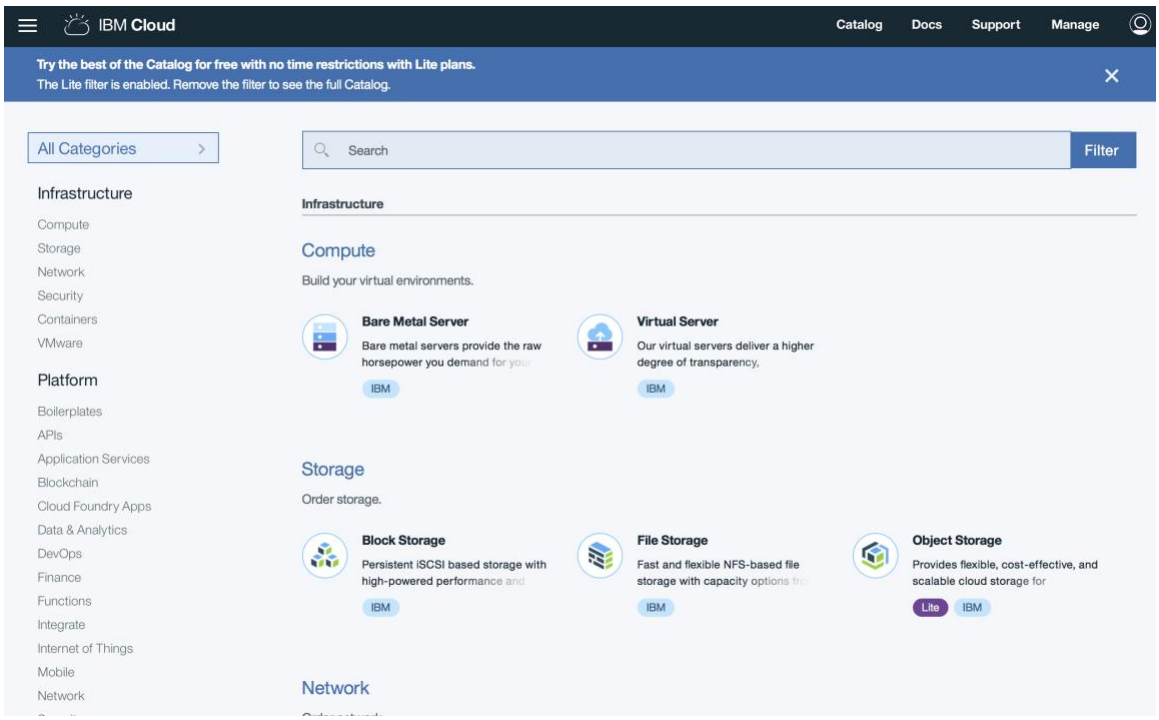


We are now looking at the IBM Cloud Dashboard.

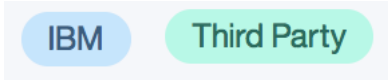
3. Click on the “Catalog” button found in the upper right-hand corner of the screen



The Catalog is a compilation of the services offered on the IBM Cloud.



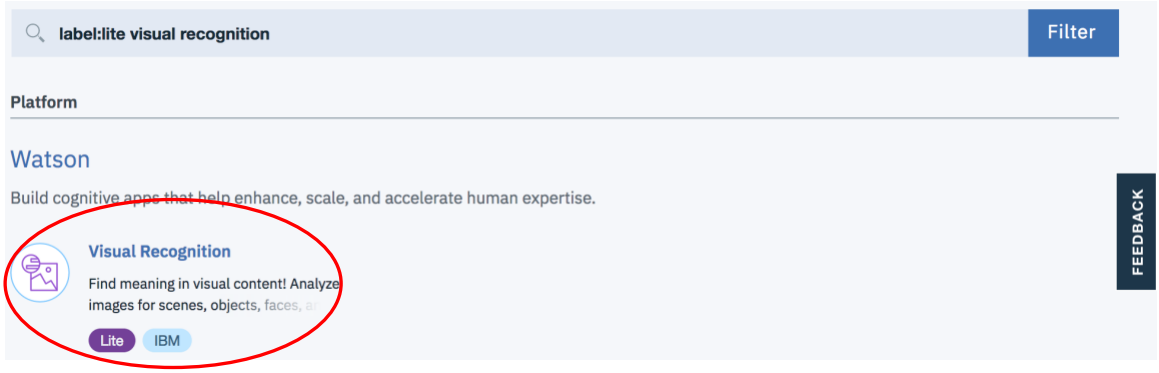
IBM Cloud supports both IBM products and services, as well as third-party. They are indicated by the small ovals below each service description.



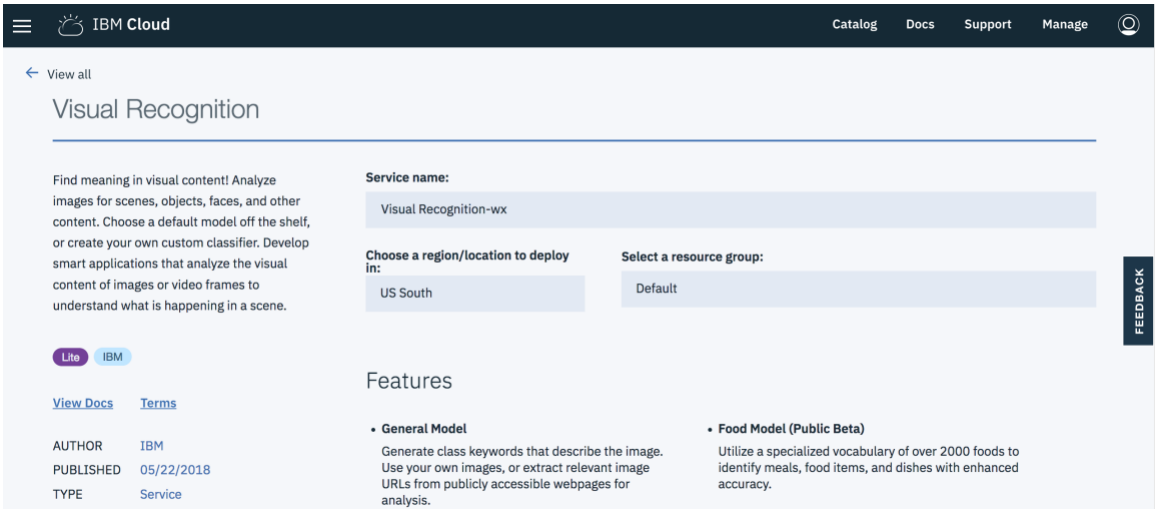
Part 2: Provision a Service using IBM Cloud

1. Type into the search bar: “Visual Recognition”.
Alternative way: In the Categories sections, select Watson, Visual Recognition

2. Click on “Visual Recognition”.

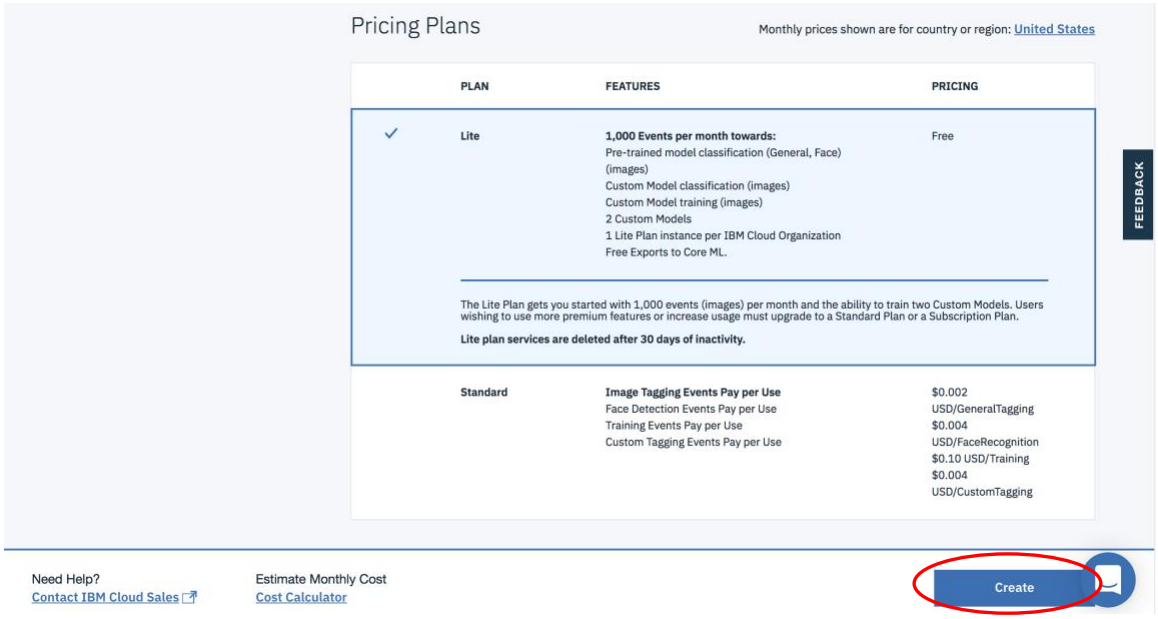


3. Type a Service name of your choice.
Note: This will be added to a list of your deployed services, so it is helpful to use a descriptive title. (Ex. Visual Recognition Lab)

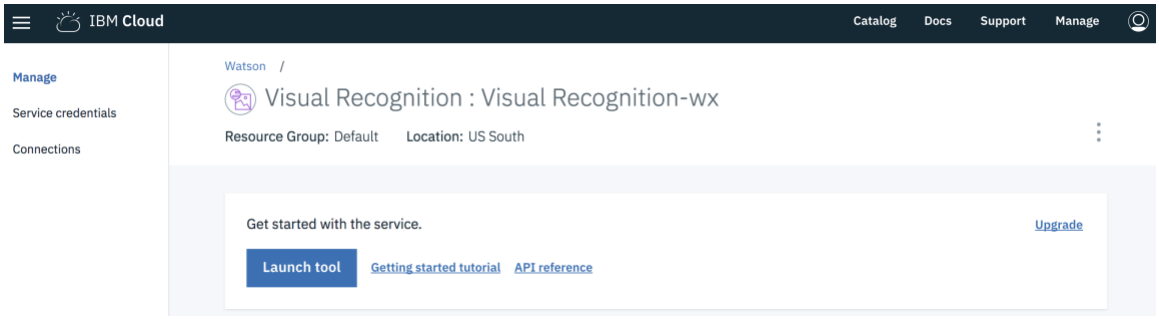


The “Free” plan is selected by default.

4. Select “Create” to deploy the Visual Recognition Service.

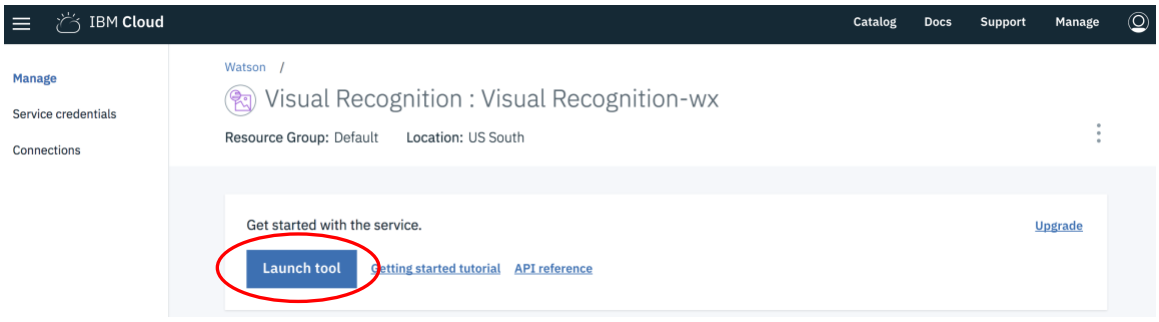


This page indicated that the service had been created.

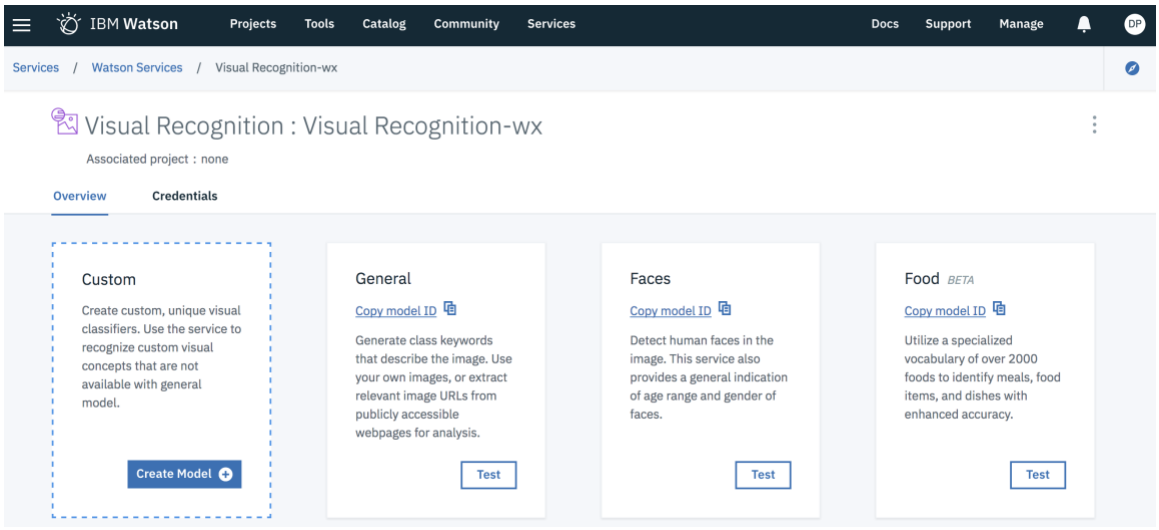


Part 3: Launching Watson Visual Recognition

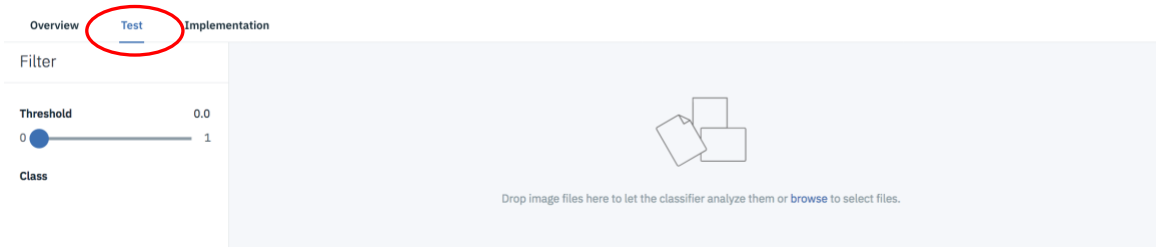
1. Launch the service by clicking on “Launch Tool”



We are now in the Visual Recognition Tool. There are already some pre-trained classifiers in the tool. Feel free to explore the pre-trained models by clicking on Test next to them. We will be using these today. You can



2. There are a few pre-trained modeled listed, as seen above, General, Faces, etc. To test these models, select “Test”



3. Select “Test”.
   Test any image by dragging and dropping it into the box. You can test with any image either on your desktop or that you pulled offline.

4. Return to your IBM Cloud dashboard and click on the Visual Recognition service.

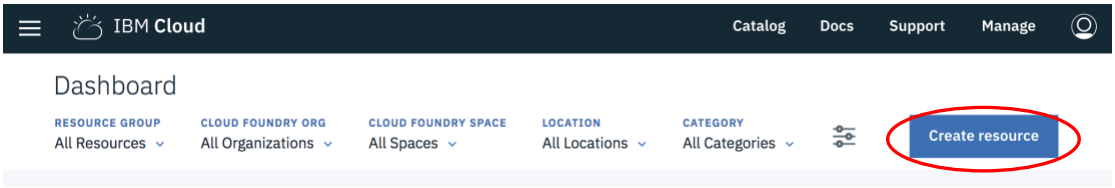
5. Select “Service Credentials”. These will be used to create the connection between the service and our application.
6. Select “View Credentials”. If no credentials are available, select “New Credentials”.
7. Copy and Paste those details into your notes. We will need the in-future steps.

Part 5: Creating a Node-RED Flow

1. Navigate IBM Cloud at https://www.ibm.com/cloud/

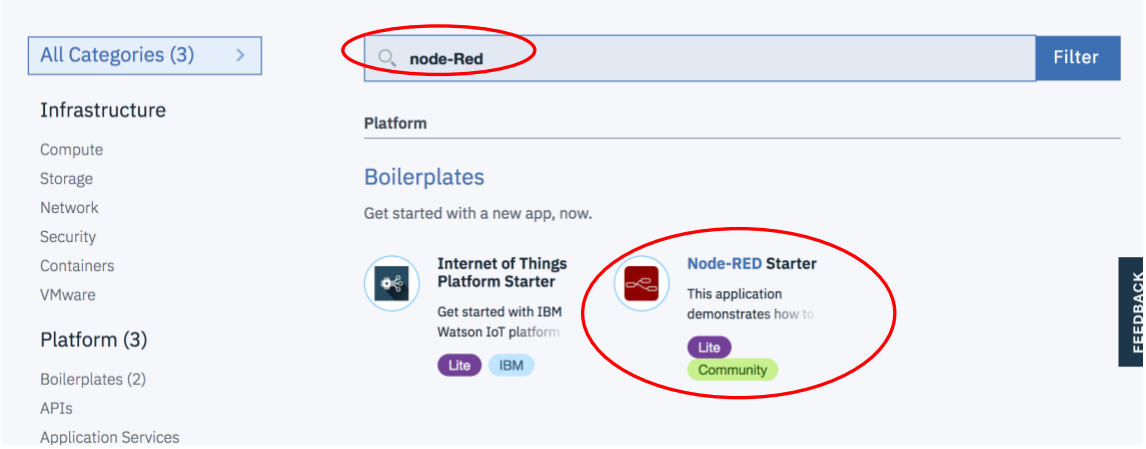
2. Log in with your IBM Credentials

3. Select “Create resource”

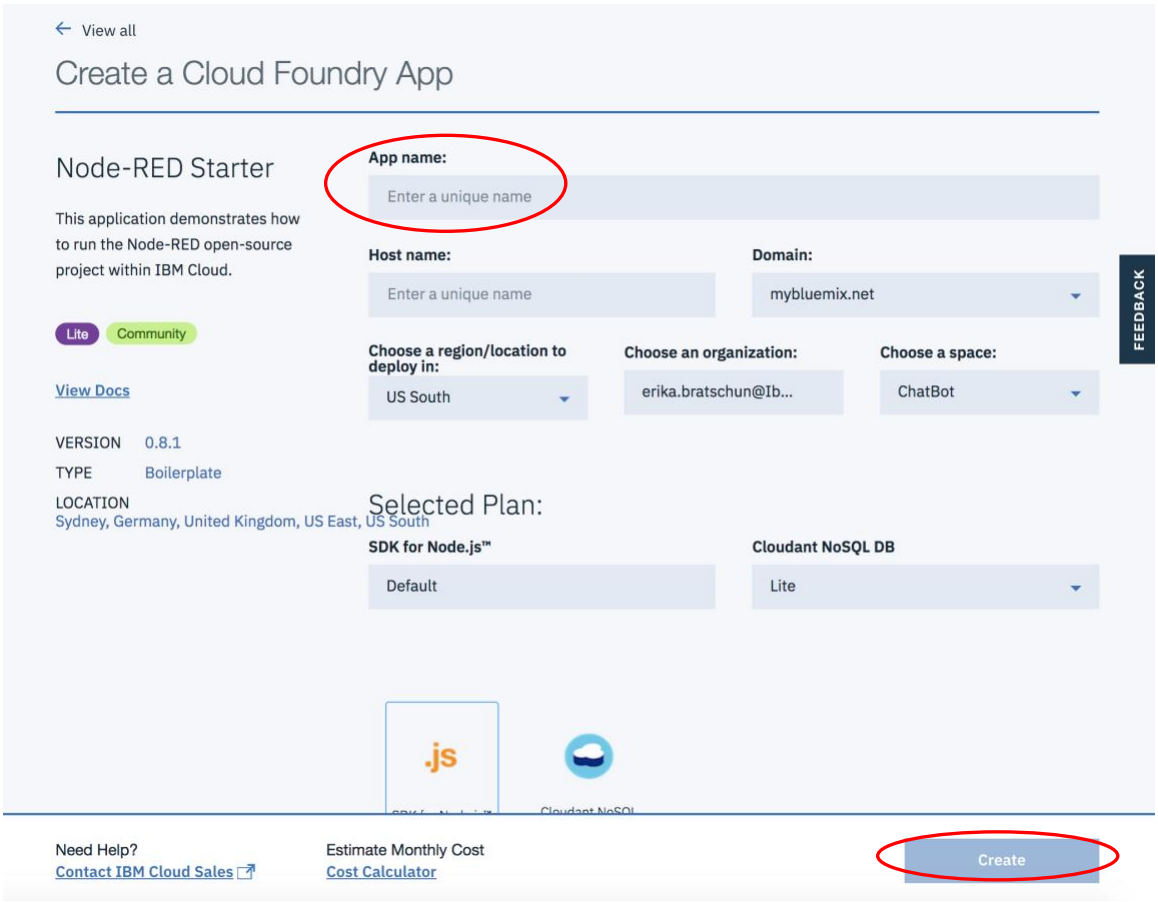


4. In the search bar, type Node-RED

5. Click on the “Node-RED Start” Service

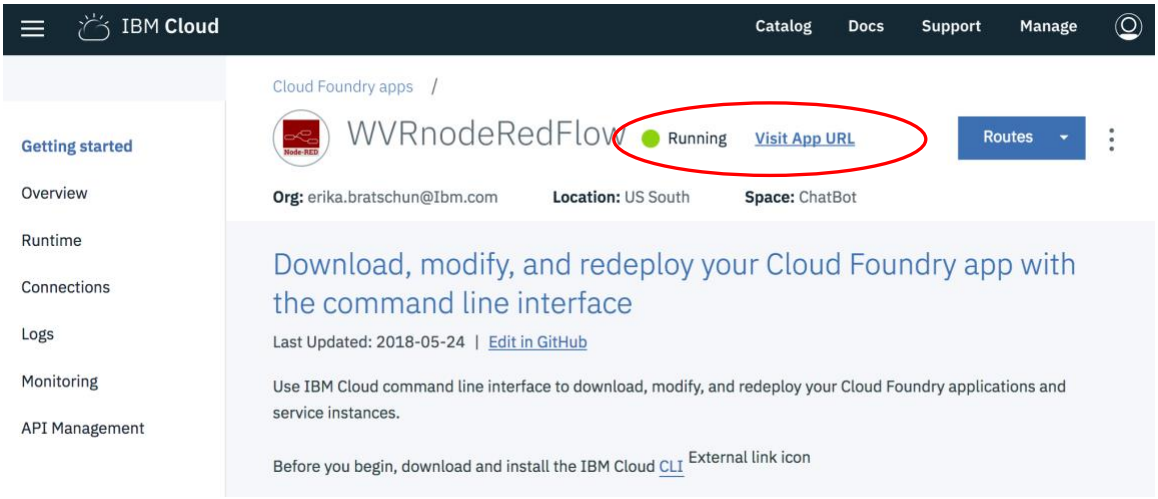


6. Give the service a unique name and click “Create”.

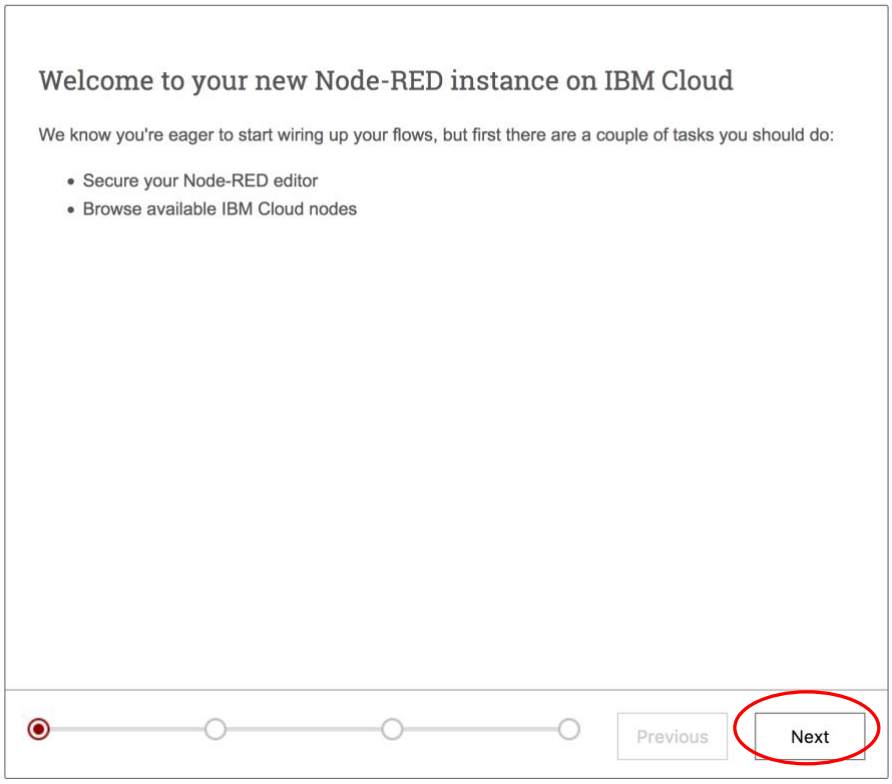


The app will take a few minutes to get up and running.

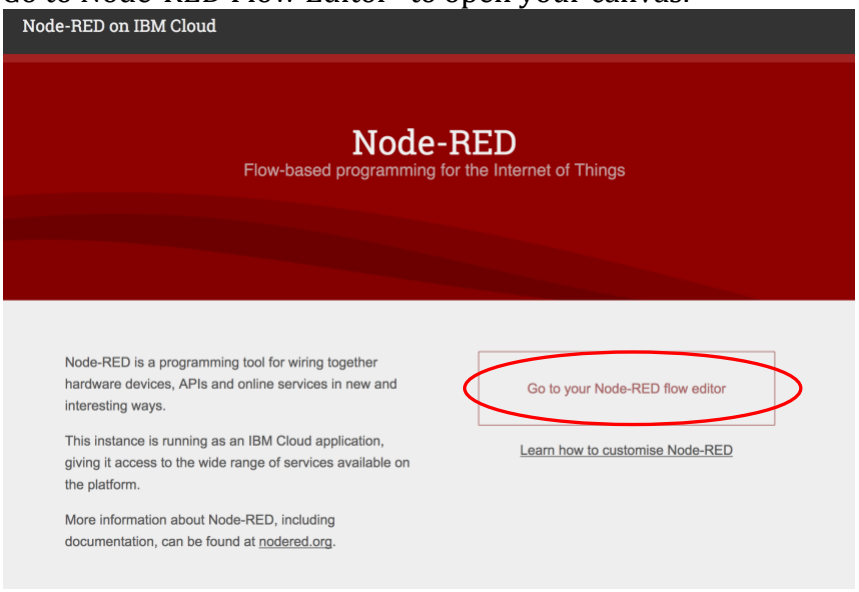
7. Once the app is running, select “Visit App URL”.



8. This will bring you to the Node-RED starter page. Navigate through the welcome messages by selecting “Next” on each page.

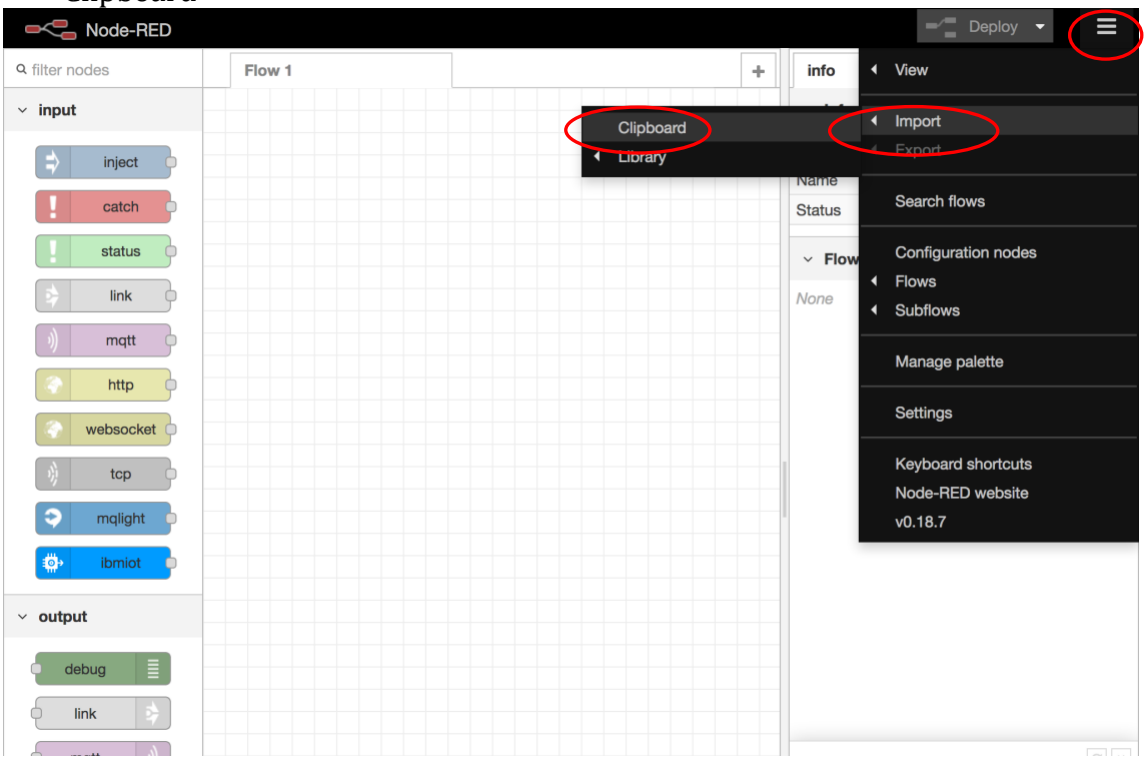


9. Select “Go to Node-RED Flow Editor” to open your canvas.

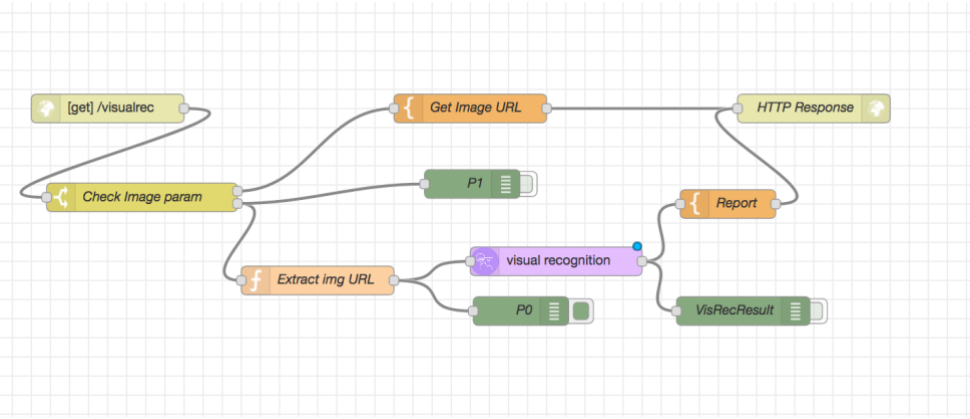


Once opened, you can see the pallet containing your nodes on the left. If you are working on multiple flows at once, navigate to the different pallets with the tabs at the top.

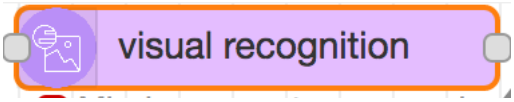
10. Select the hamburger in the top right corner and navigate to “Import” > “Clipboard”



11. Copy and paste the JSON from http://ibm.biz/WVR_node_red_flow into the clipboard



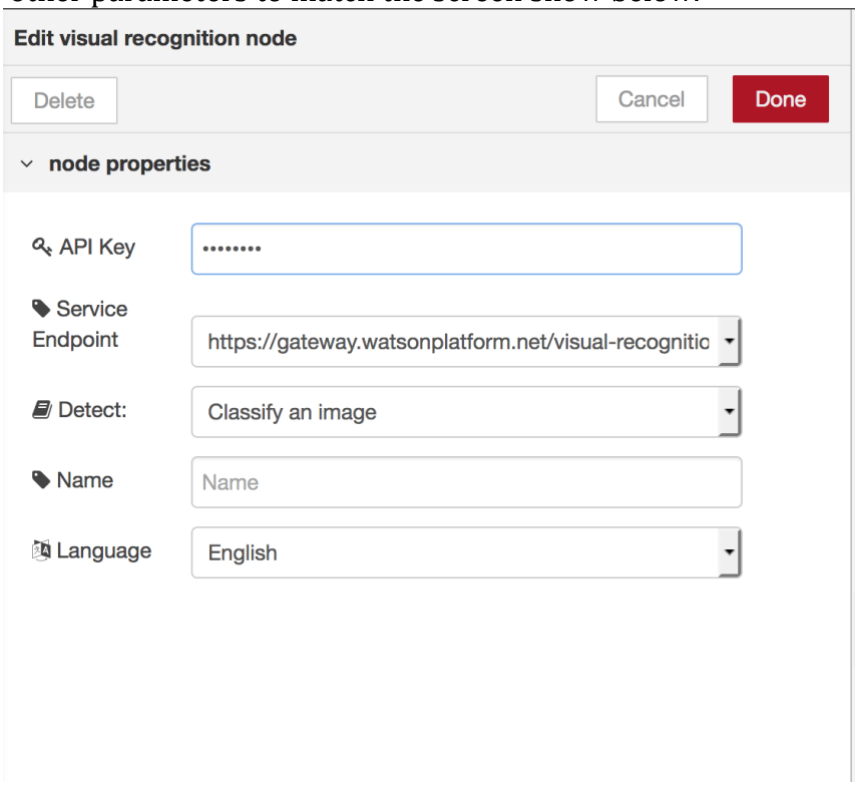
12. Double click on the purple “Visual Recognition” node



13. This is where we will import the “Service Credentials” copied from the previous steps.

14. Copy the API Key into the correct location.

15. Set the other parameters to match the screen show below.



16. Click “Deploy”

17. To view your application, navigate to your URL with <*yourappname*>/application on the end
Example: https://wvrnoderedflow.mybluemix.net/application

18. You can now test the visual recognition from your new application.

19. Challenge:

    a. Train your own Visual Recognition classifier.

    b. Modify your flow (ie. incorporate other Watson API's)

    c. Customize your web app (ie. change out the images, etc.)

    d. GET CREATIVE!

Conclusion

Next steps would include integrating the Watson Visual Recognition service with other services and applications. Some background can be found at the following site.

https://console.bluemix.net/docs/services/visual-recognition/getting-started.html#getting-started-tutorial

Now that you have completed this lab, you should be able to

- Navigating IBM Cloud Platform
- Launching Services from IBM Cloud
- Using Watson API and creating an application with Node-RED

If you wish to create the flow on your own, steps can be found at:

https://www.ibm.com/developerworks/community/files/form/anonymous/api/library/bfa19215-d309-4fe8-b9ad-d38eda26cc7b/document/55766a8a-9e3a-4276-ab53-9e6e9f00b14d/media/Lab%252002%2520Node-Red%2520Watson%2520Starter.pdf

