Node-red Creation

Brief: This tutorial will guide you in creating a device in the IBM IoT platform

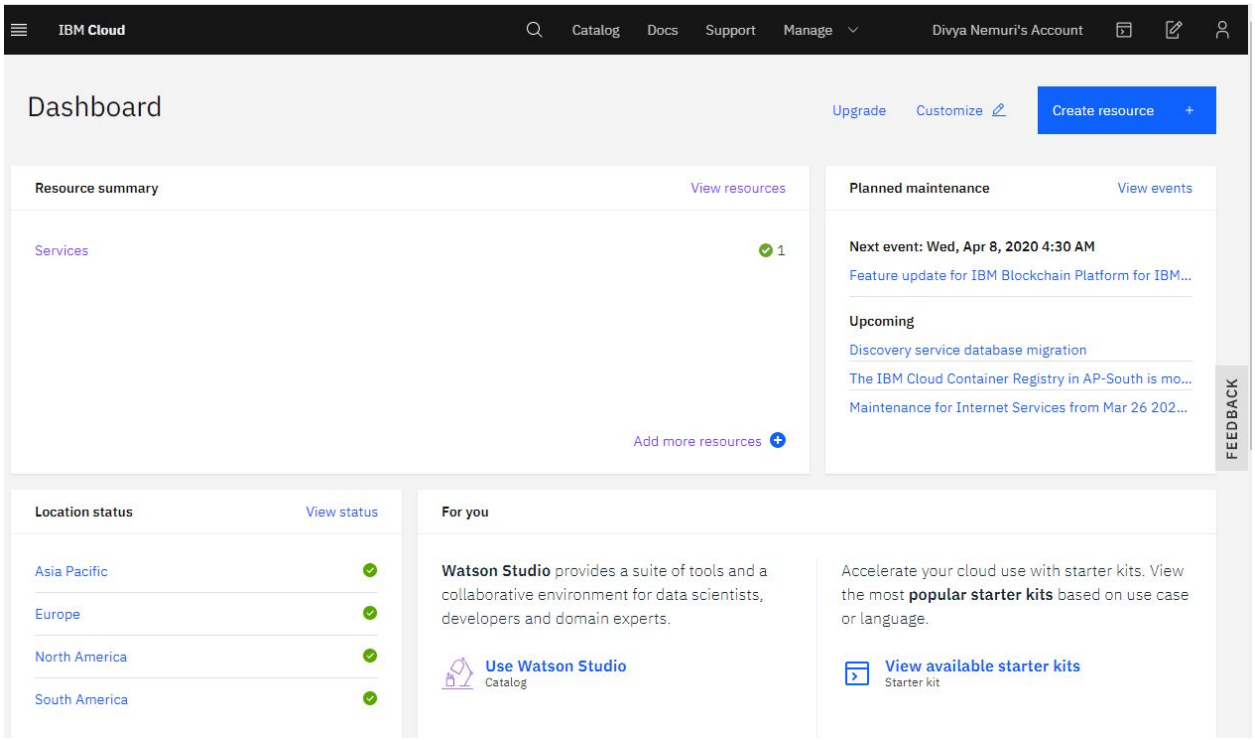
Outcome:

In this tutorial, you will learn the following activities and tasks.

- Creating a node-red application
- Launch and configure the node-red application
- Basic flow on how to use node-red application.
- Installing dashboard nodes for creating a web UI

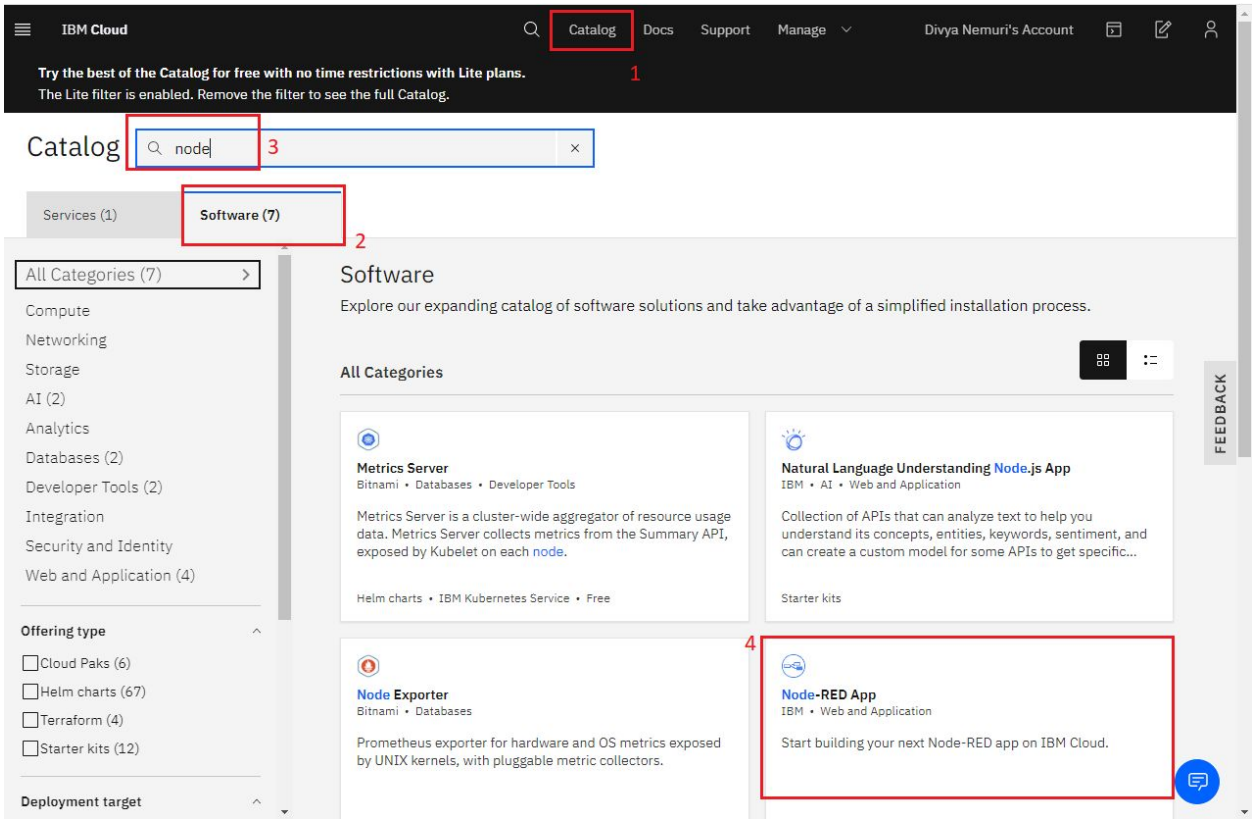
Activity:

Log in to Your IBM account using https://cloud.ibm.com/. Upon successful login to the cloud, you will be on the dashboard page. If you are a new user you won't have any resources listed. For a returning user, you will have your previous resources listed.

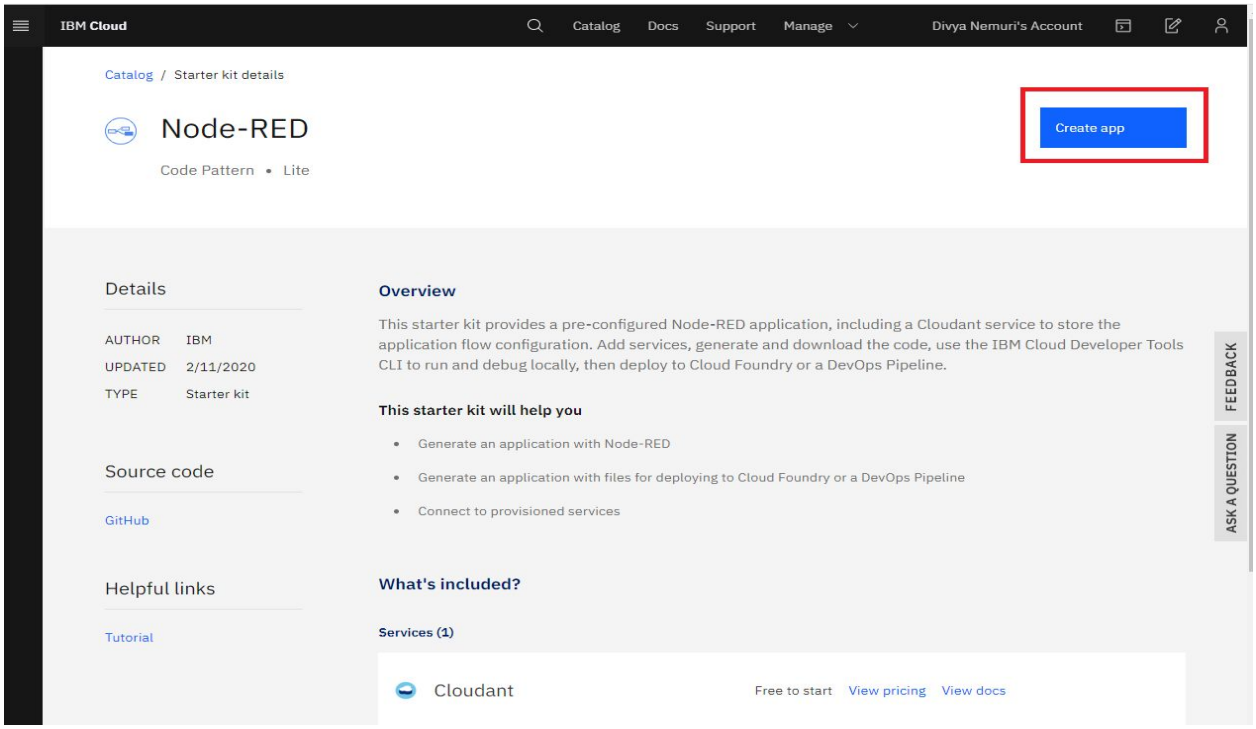


Task-1: Create Node-red application

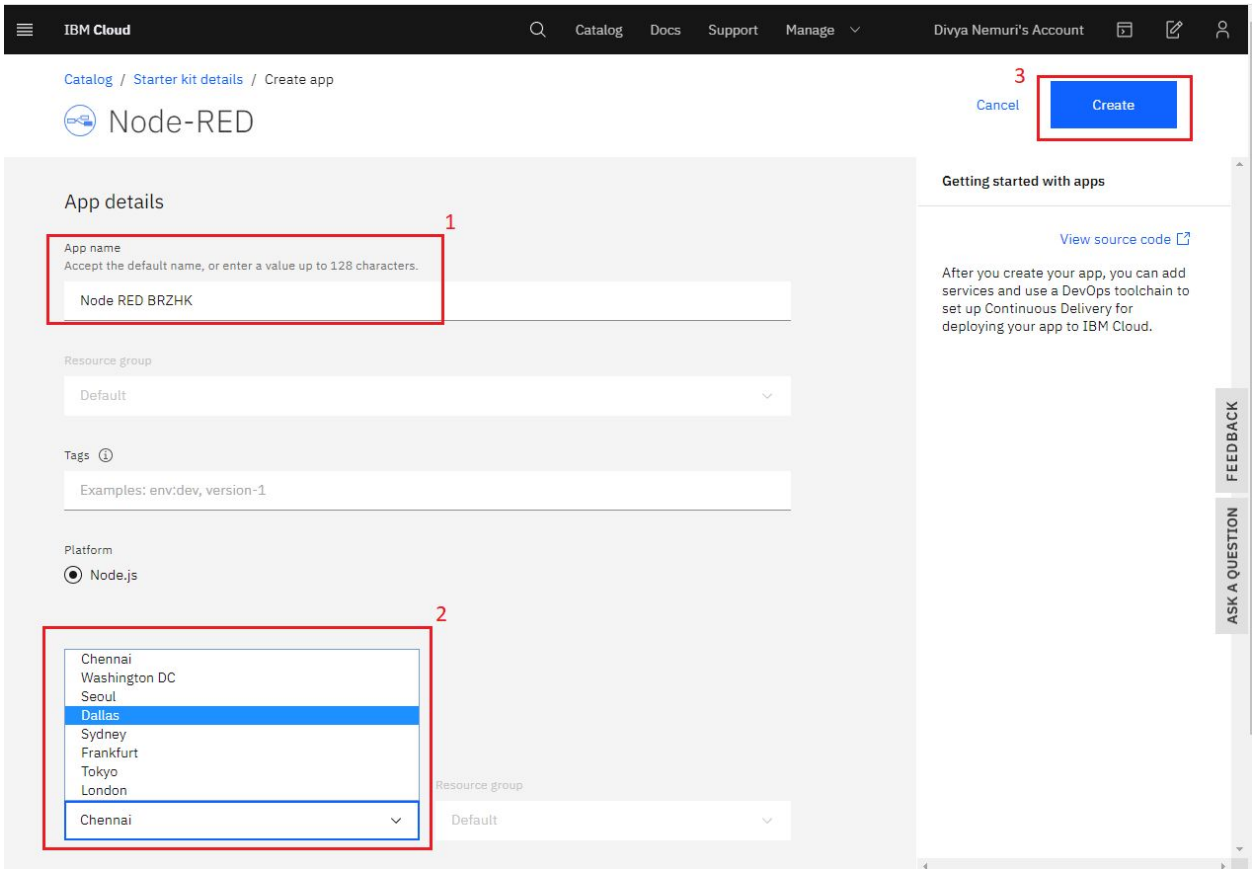
- Click on the catalog on the dashboard.
- Click on the software to find the application
- Search for node-red in the search bar provided.
- Click on the node-red application to create.



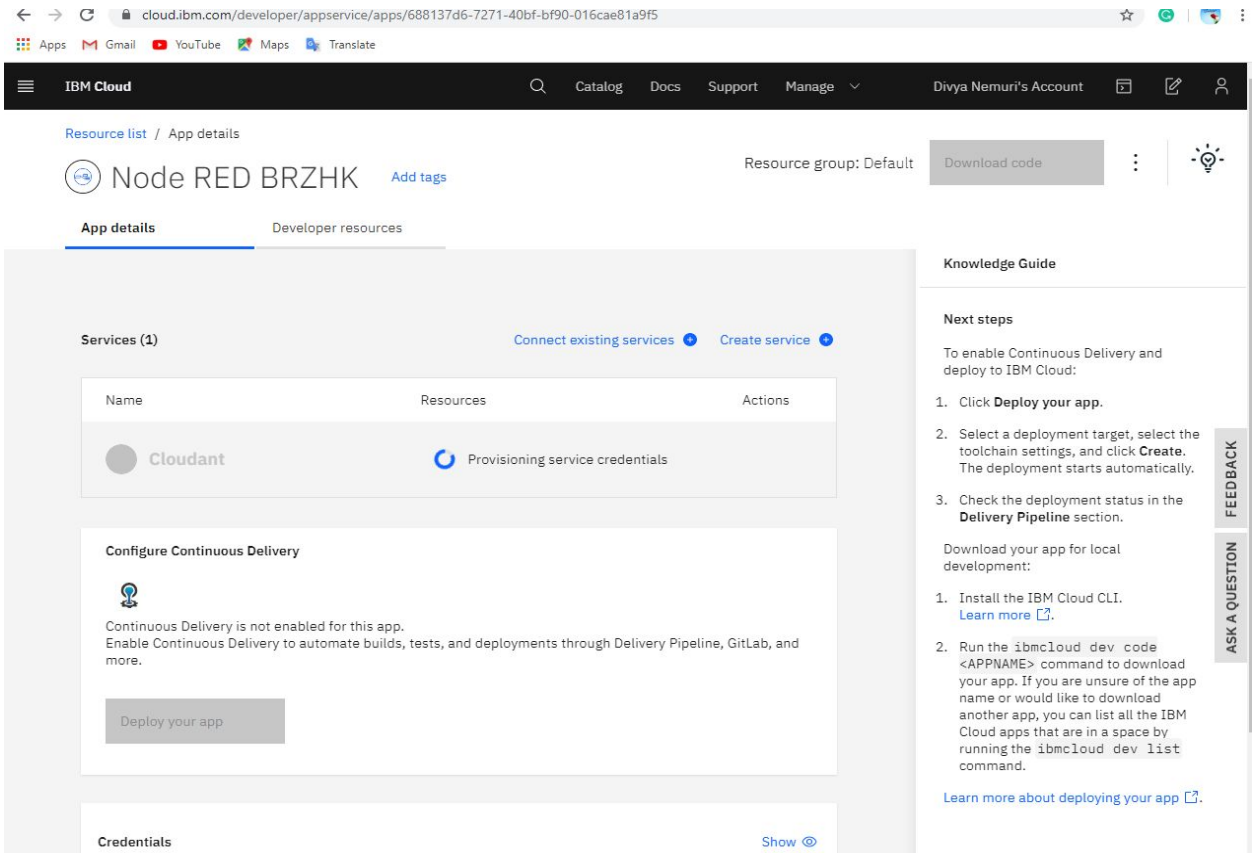
- After clicking on the node-red app you will be redirected to the node-red application starter kit page. Click on create



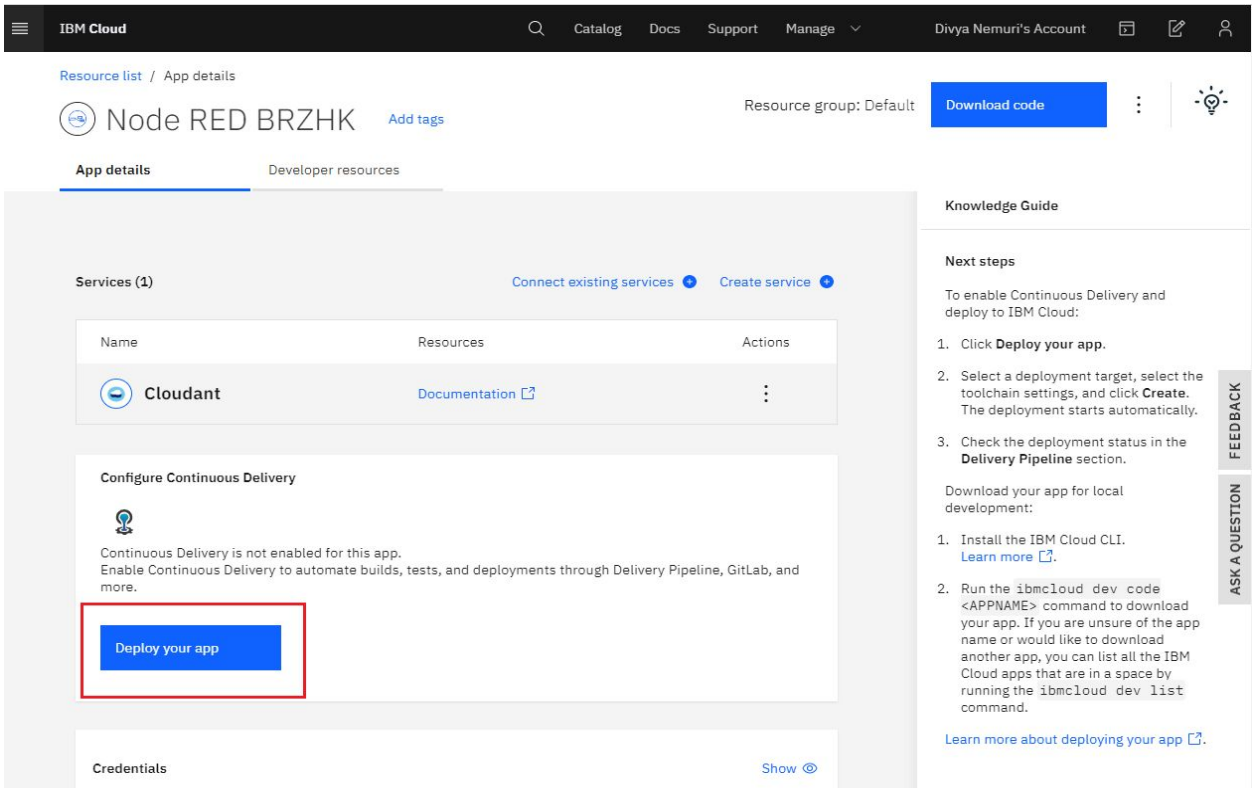
- To create the node-red application give the App name. The name should be unique. One may use the default name provided or can be of their choice. Select the region as Dallas for avoiding the conflicts on installing the nodes in the future. Then click on create



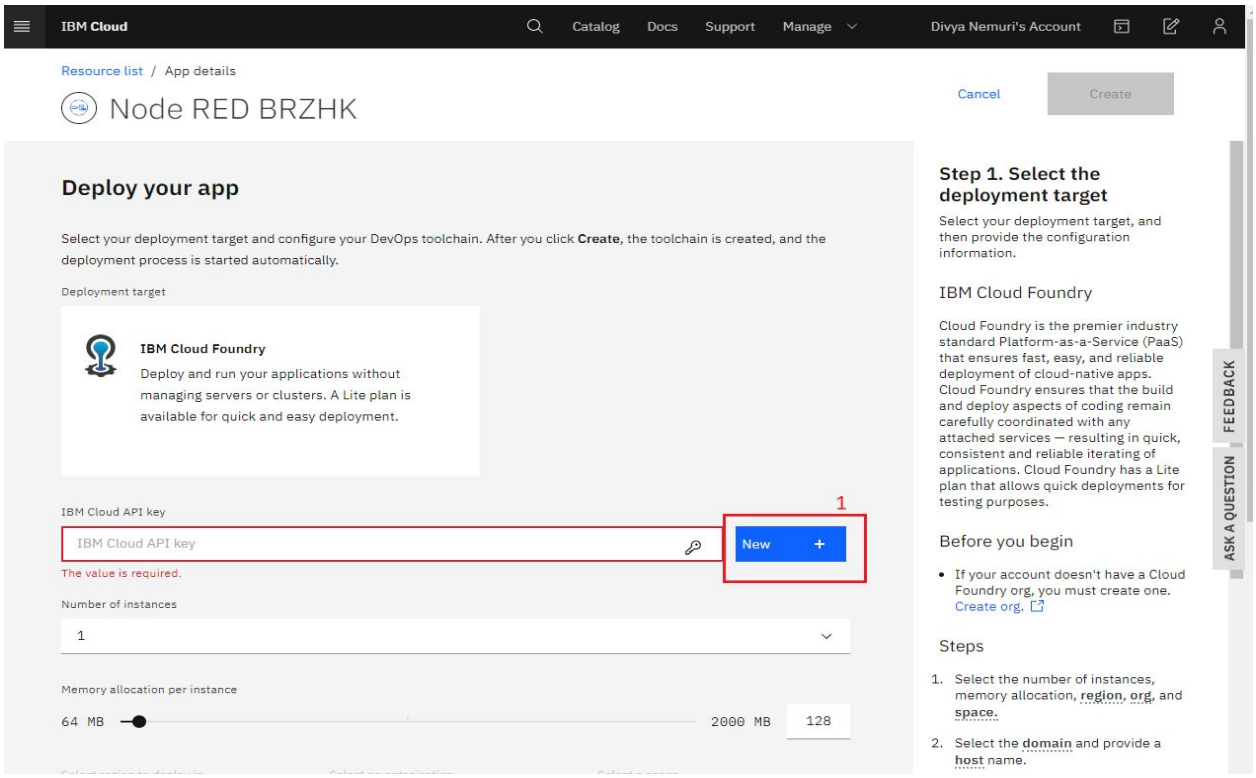
- To create the app it will take sometime meanwhile the cloudant service will be created.



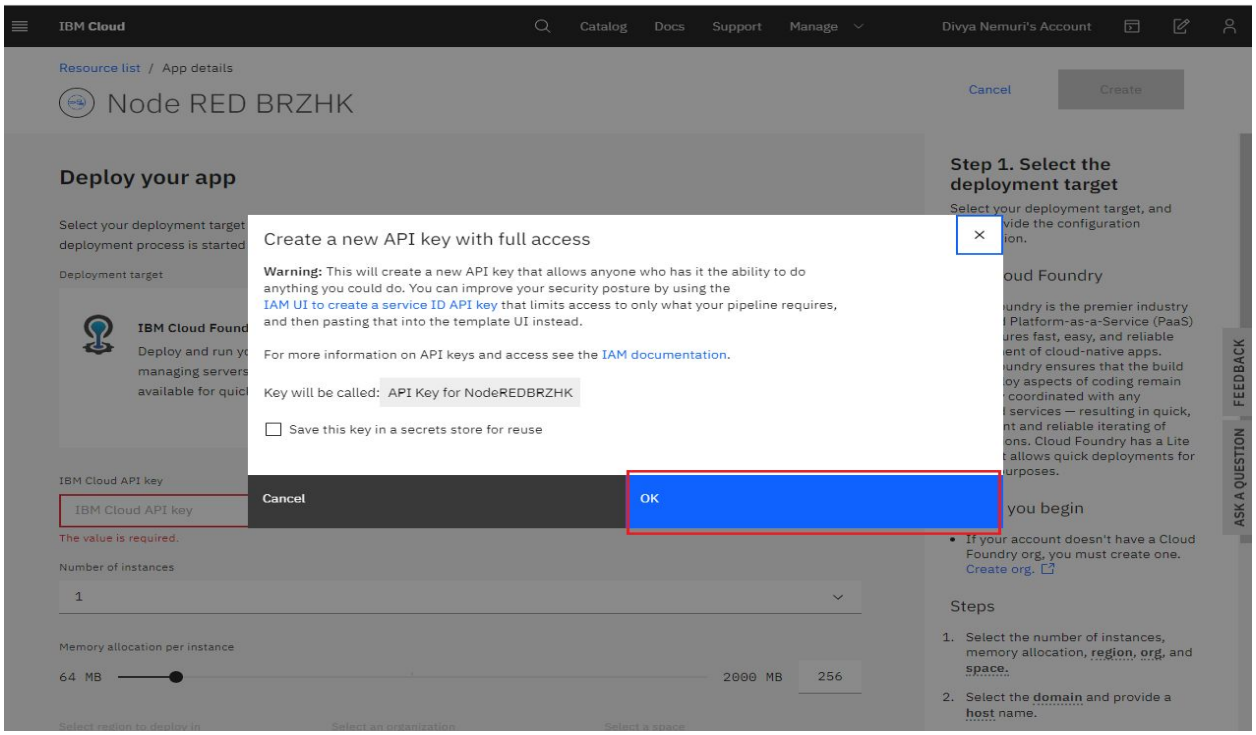
- After the successful creation of cloudant service, click on deploy your app button



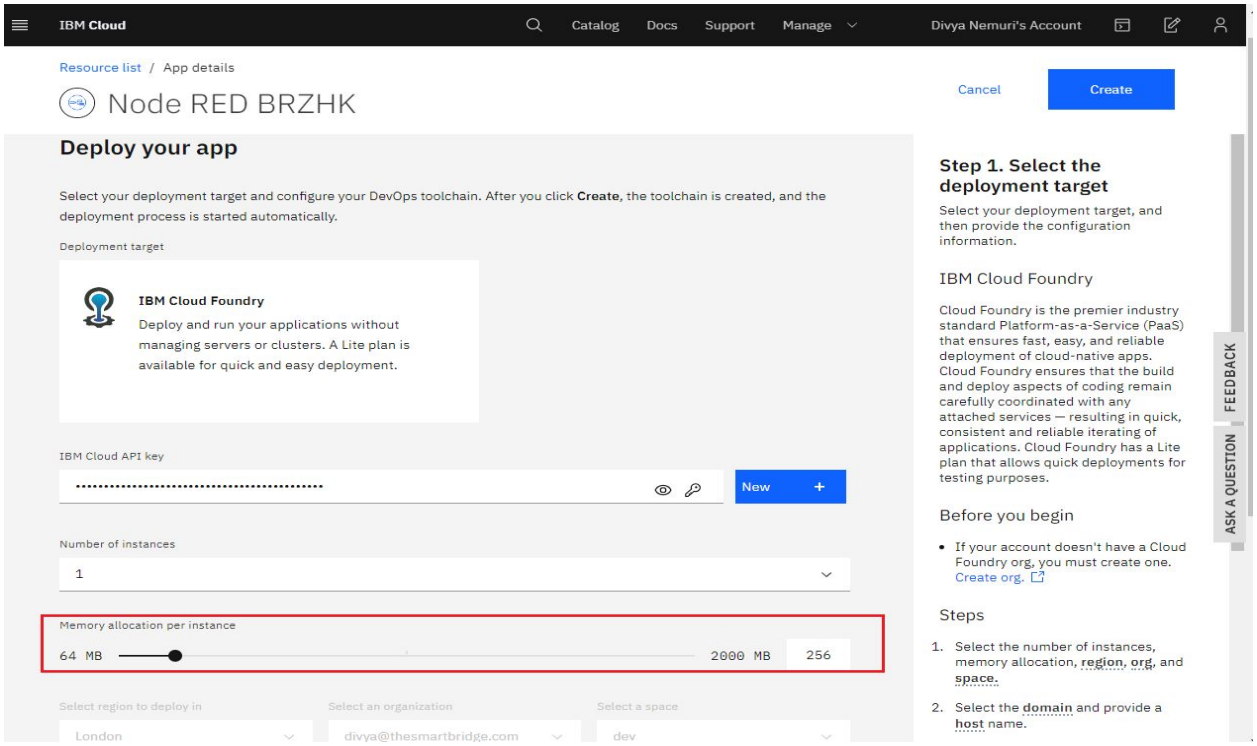
- In the process of deploying you will be prompted for the IBM cloud API key. Click on new to generate the one.



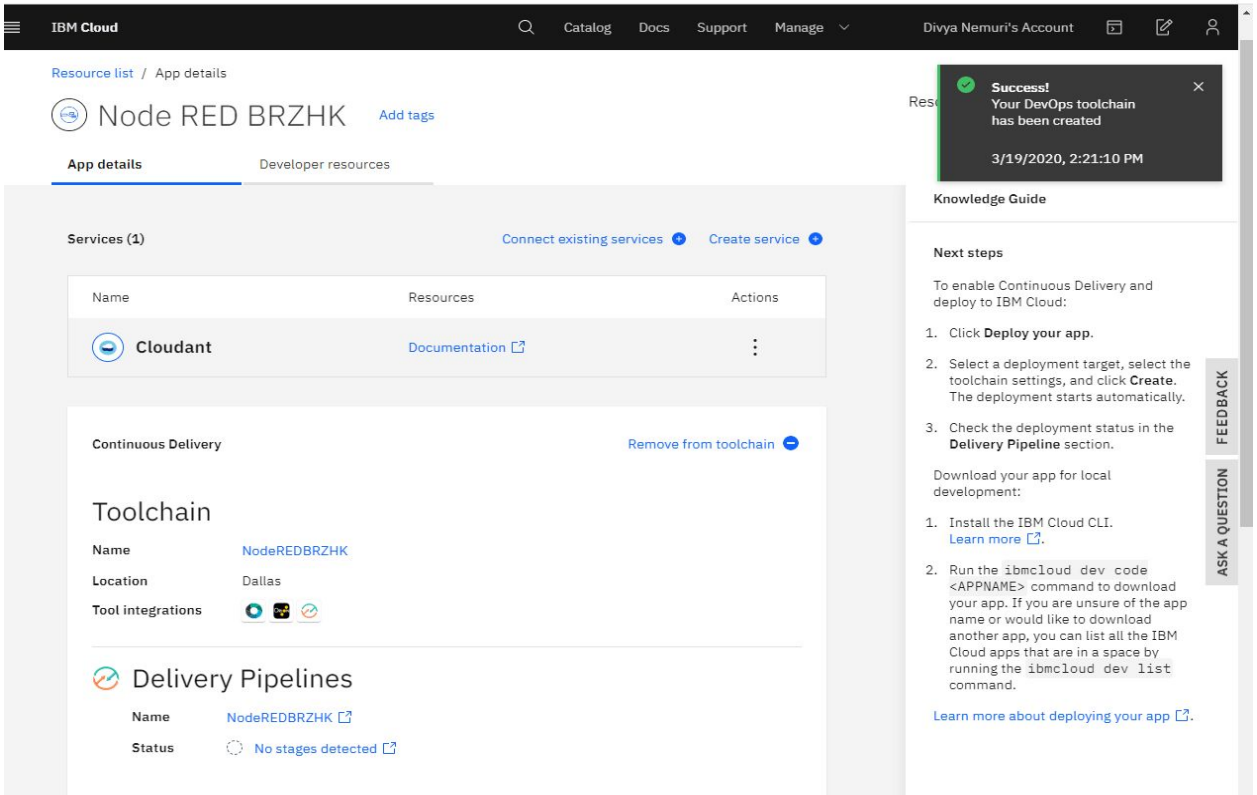
- At the time of API key generation click OK on the popup.



- Increase your memory allocation per instance to 256

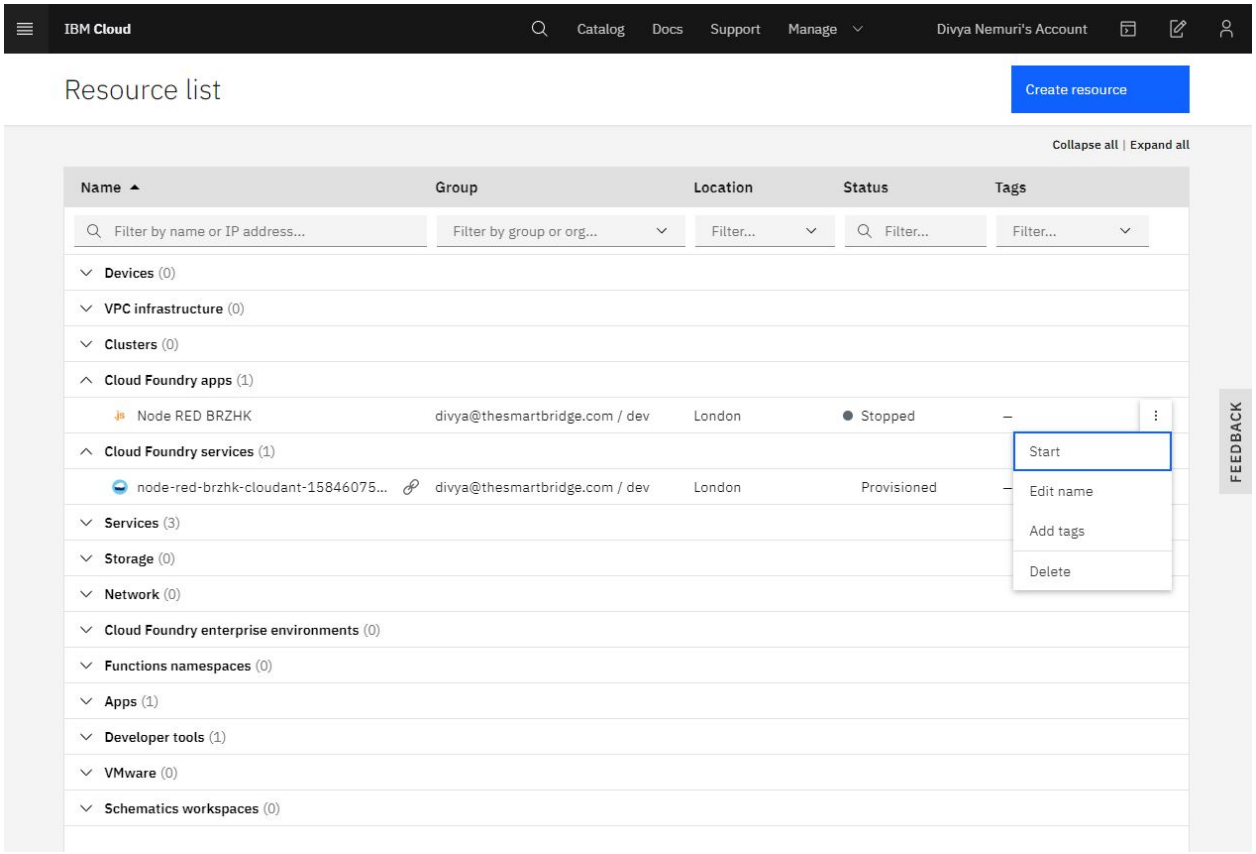


- Upon successful creation of the node-red app, you will be prompted with success message popup.

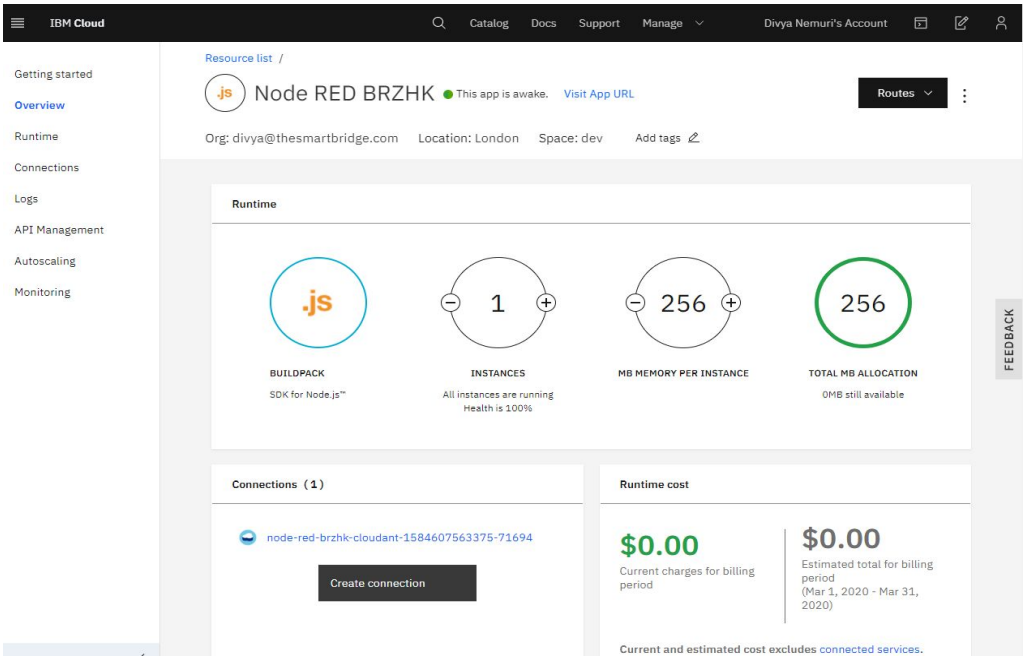


Task-2: Launch the node-red application and customization

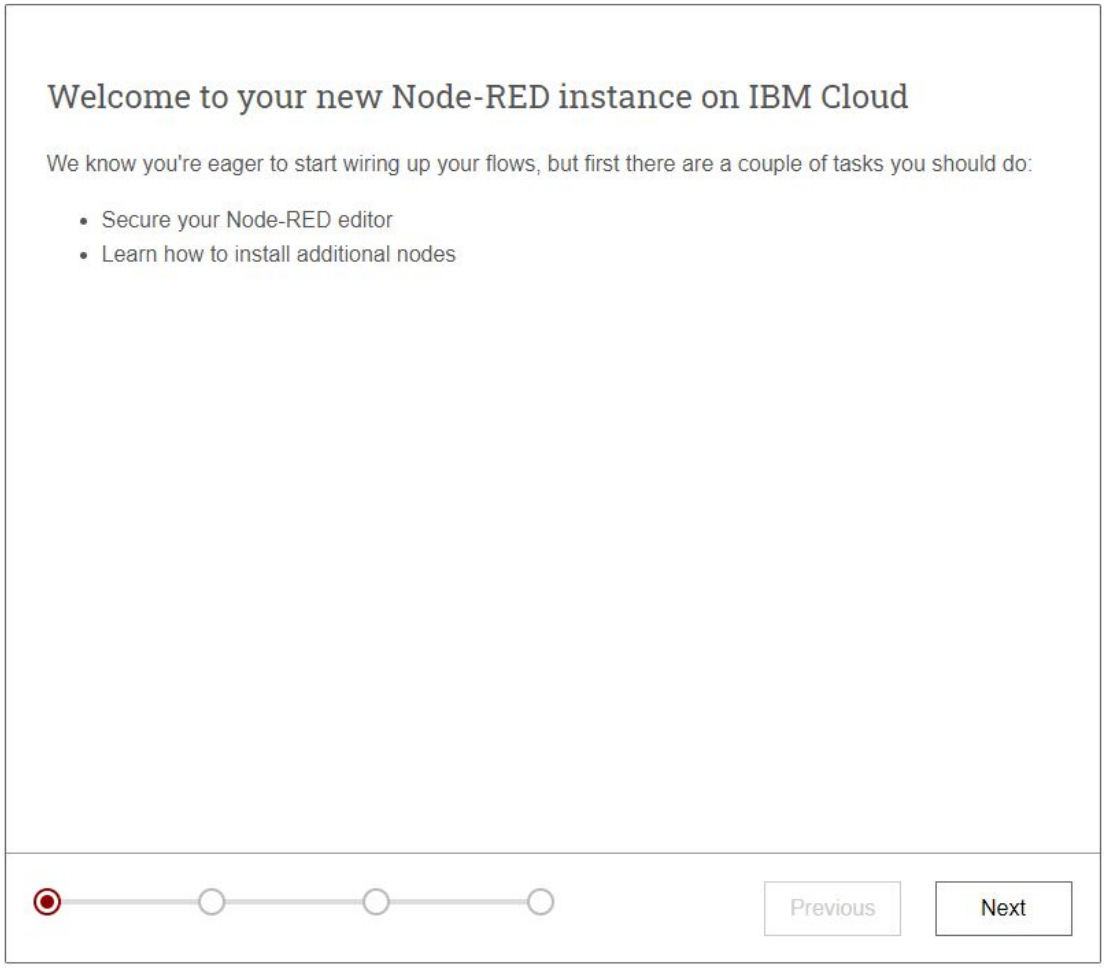
- To launch the node-red application click on cloud foundry apps in the dashboard
- If it is stopped click on start to start the application. Click on the service to launch



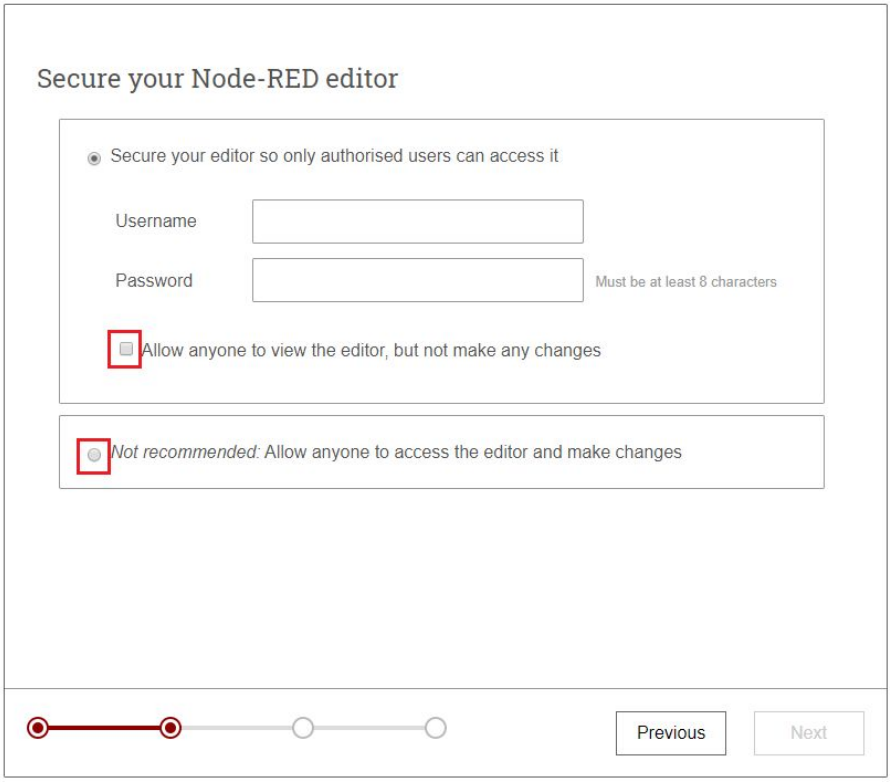
- Click on visit app URL to launch the app



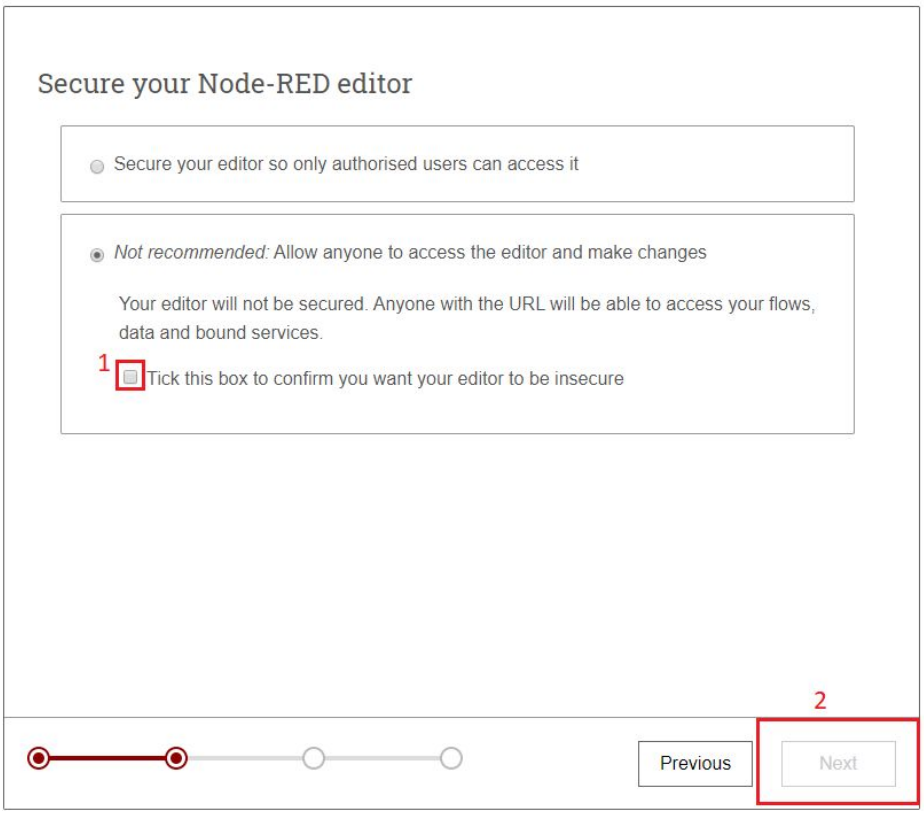
- Upon launching the app you are redirected to the following page. Click on next



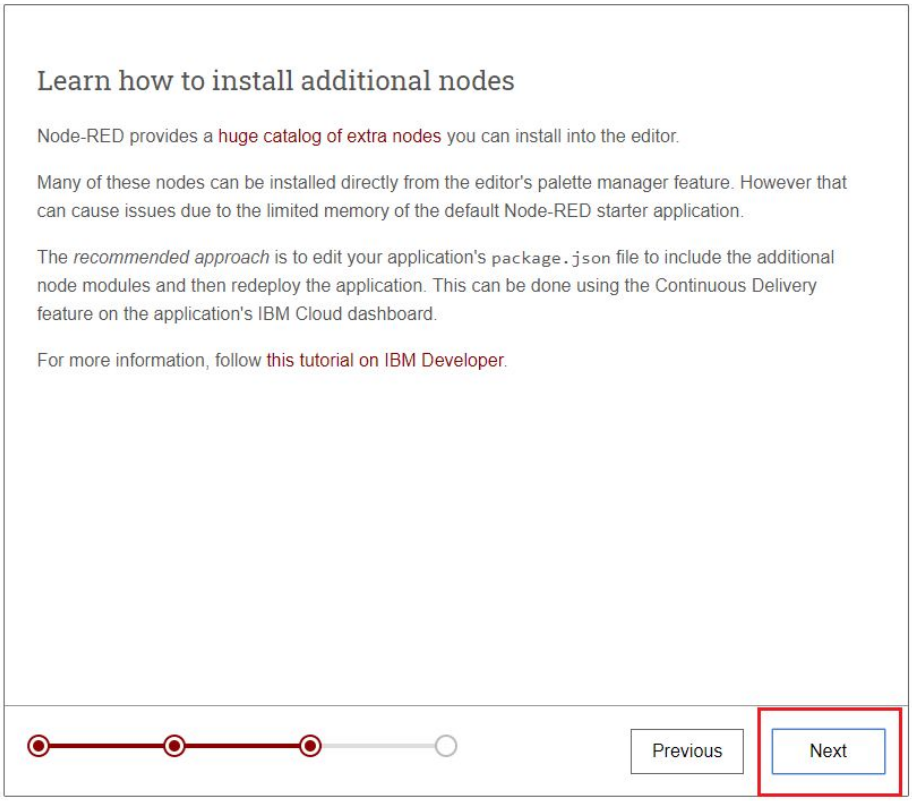
- In the next step, you are asked for securing the node-red app, if you want you can provide the credentials as your wish but remember forgetting those credentials leads to deleting the app and have to be started from the beginning. So better avoid giving credentials.
- Click the two checkboxes as shown in the below image. This step is for not securing the node-red editor.

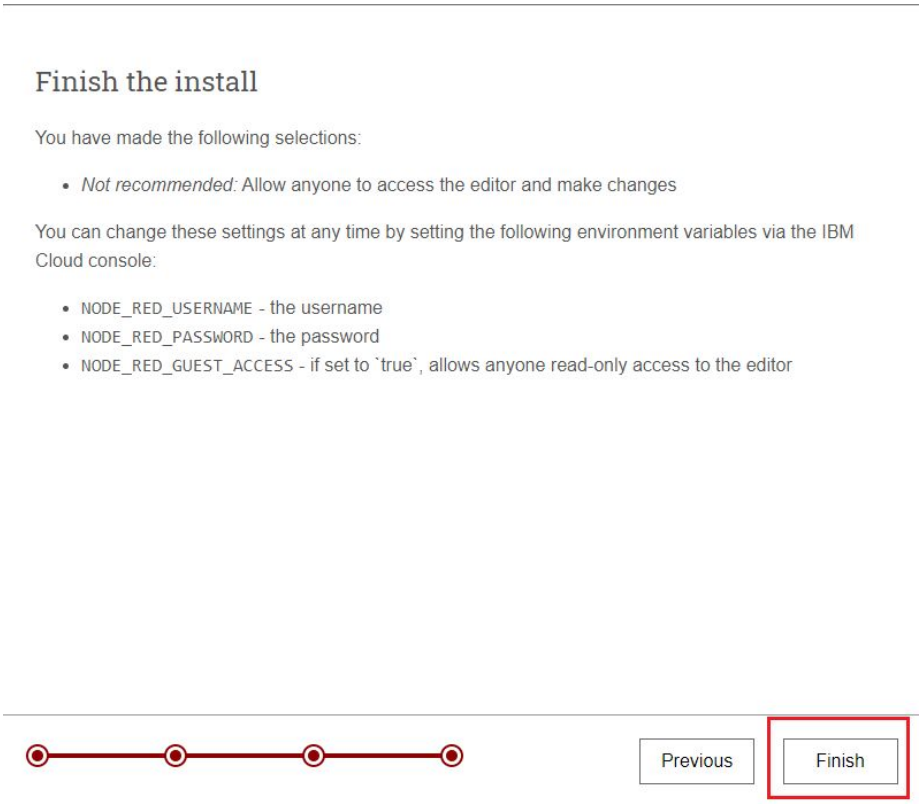


- Then after selecting the not recommended you are asked for confirmation proceed with that and click on next

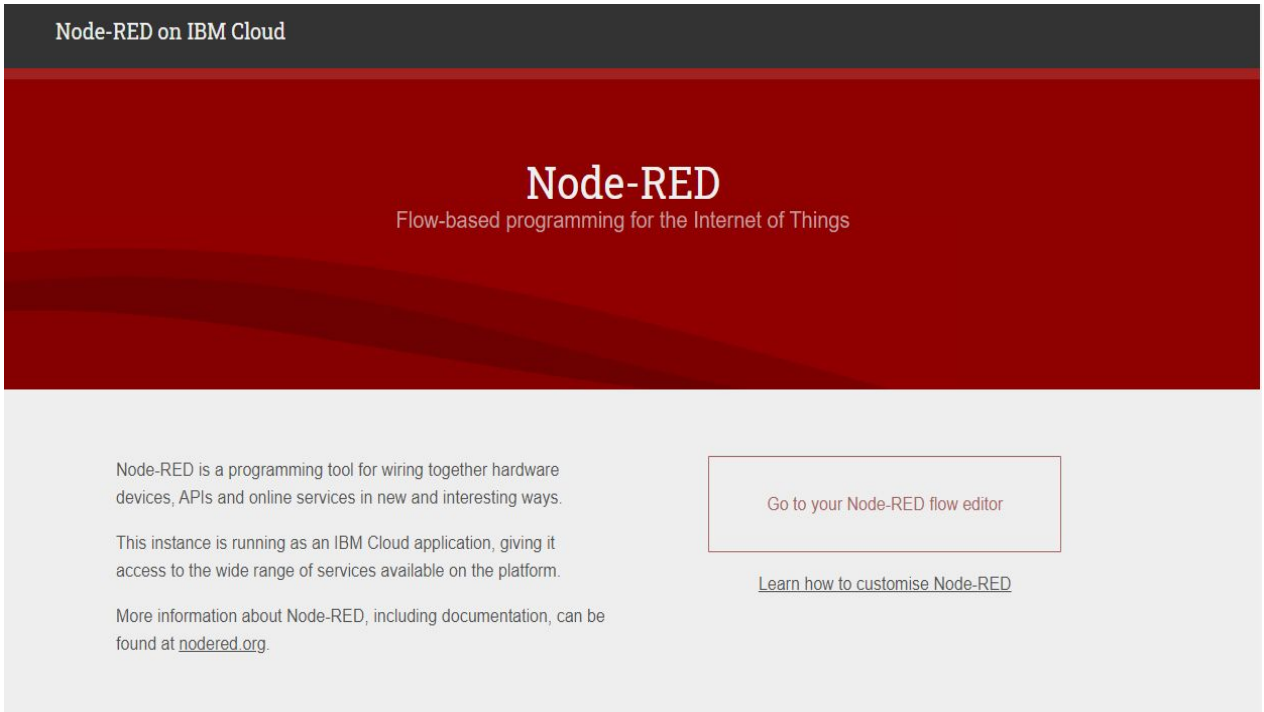


- Click on next and finish for the two further steps to finish the launch of node-red.
- This procedure is done only for the first time launch.
- For a returning user, you can directly browse from the cloud foundry apps in the dashboard. And click on the visit app URL after getting the app is awake/running.



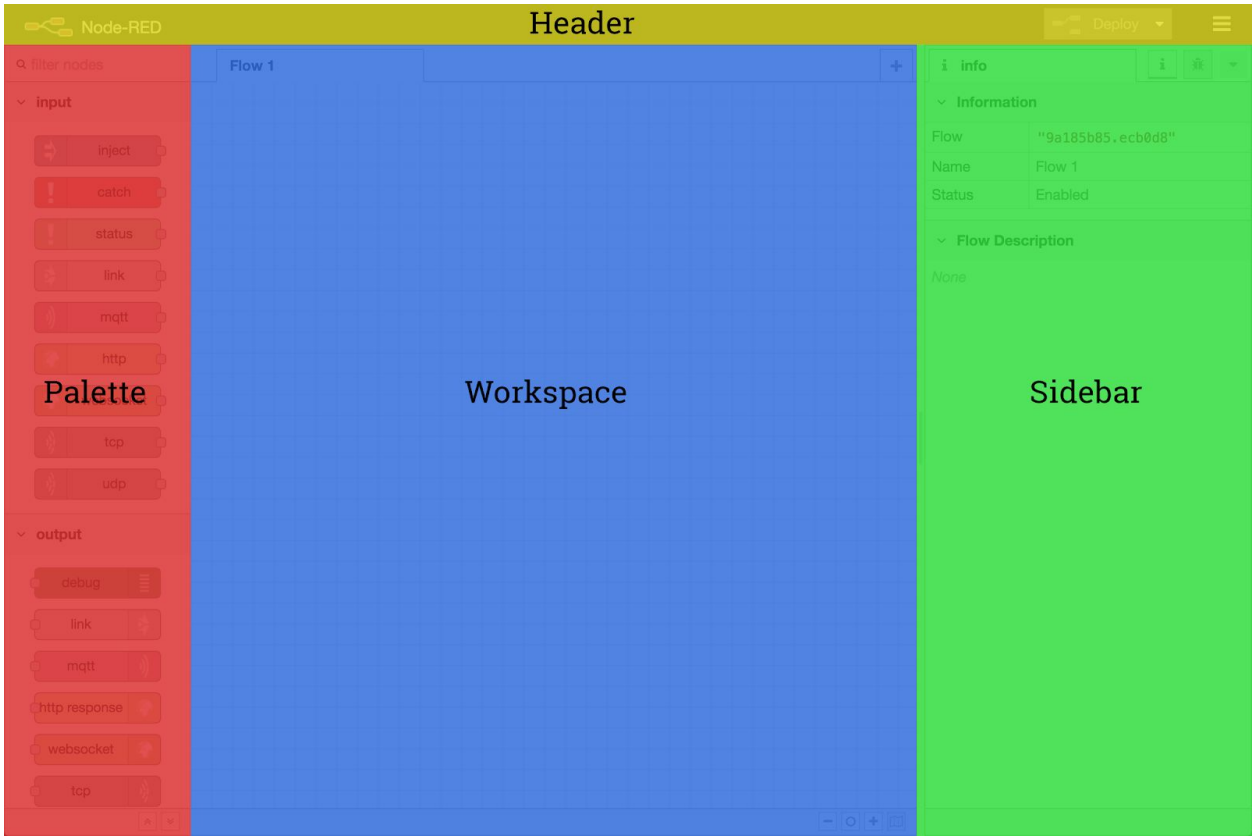


- After completing the procedure of launching node-red you are asked to go to the editor. Click on go to the editor button to launch the application

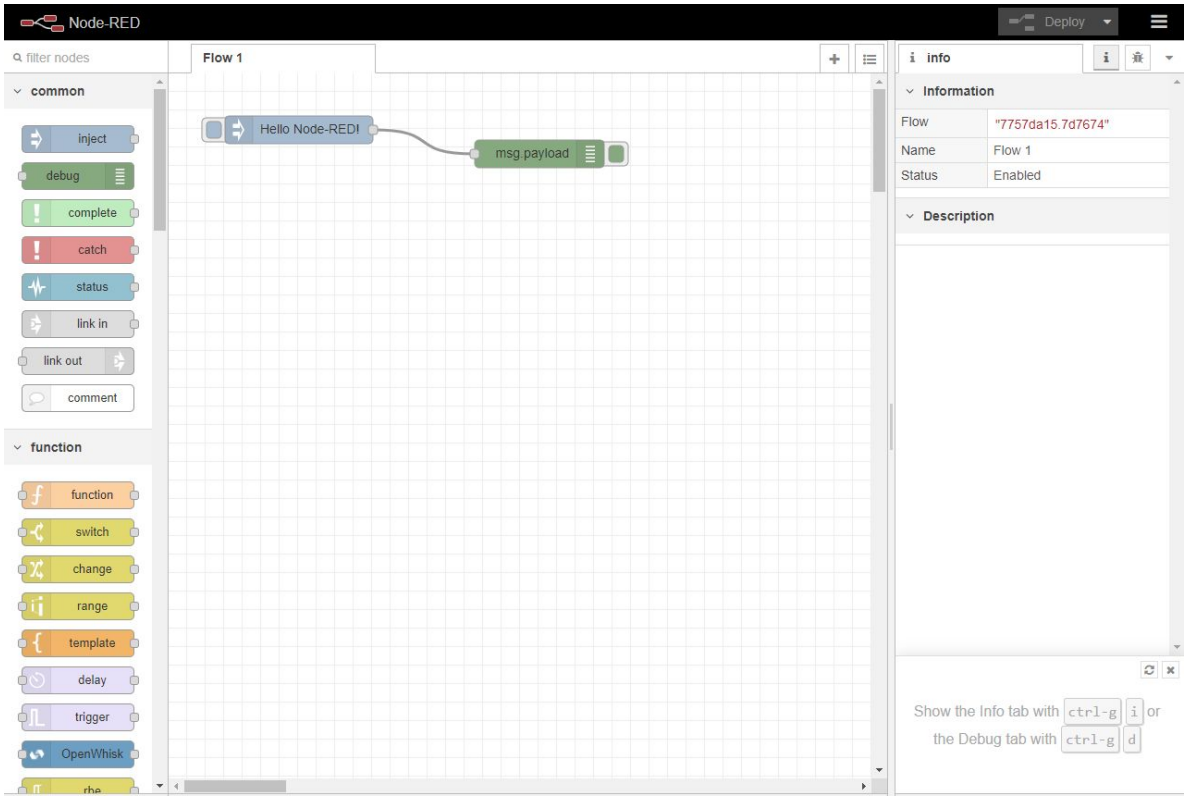


Task-3: Basic Node-red flow

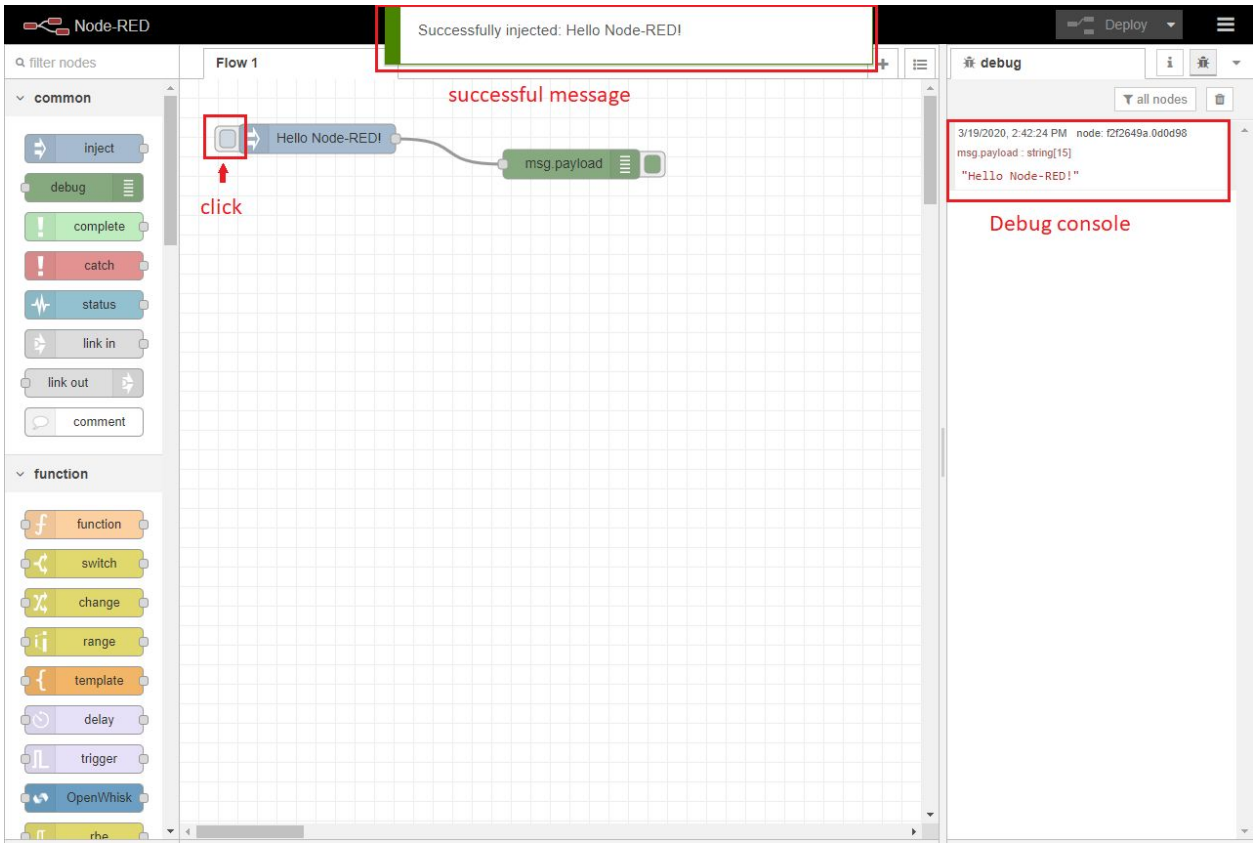
- On launching your node-red application you will be on the editor pane where one can drag and drop the nodes.



- From the palette, one can drag the nodes and drop them on the editor.
- The sidebar will be useful to know the info about nodes by selecting them and debug console helps us to debug the errors or the output is display on the console.
- The default node-red after launching the node-red application for a new user will contain two nodes connected to each other.
- The first node is the input used to inject the input for output.
- The debug node to display the output

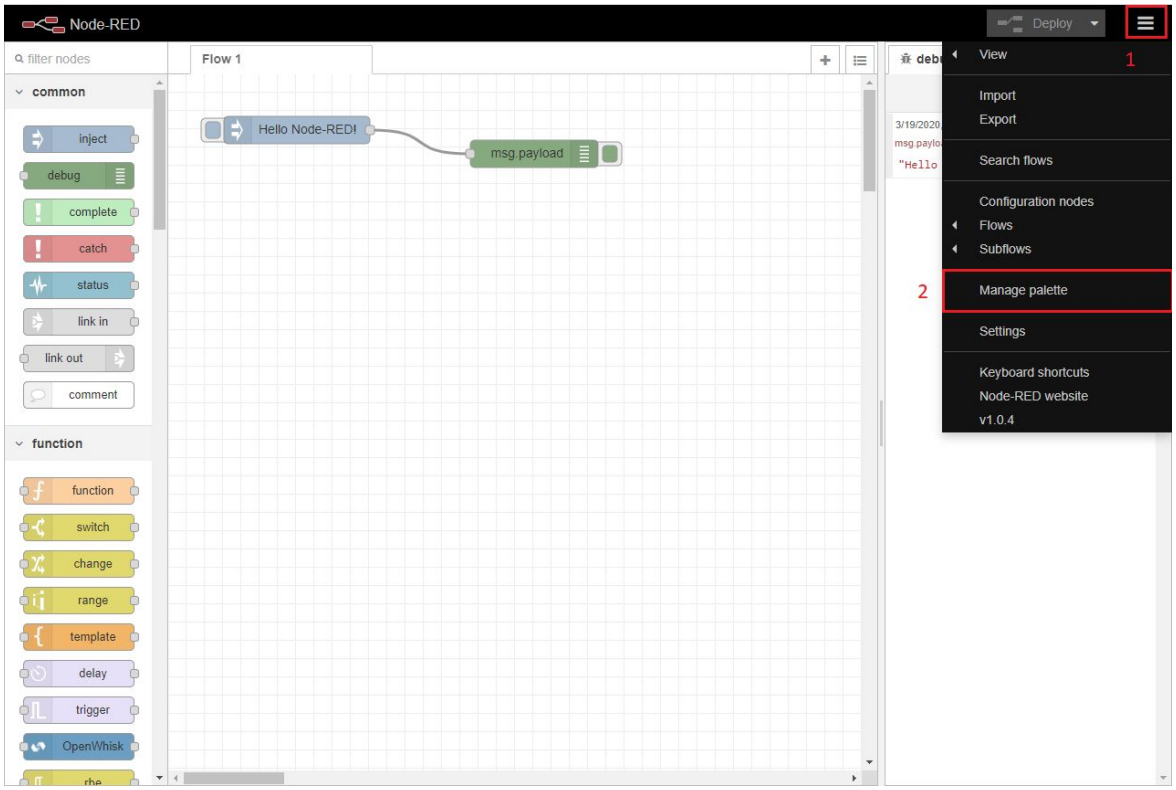


- Click on the inject node to inject the input to display on output.

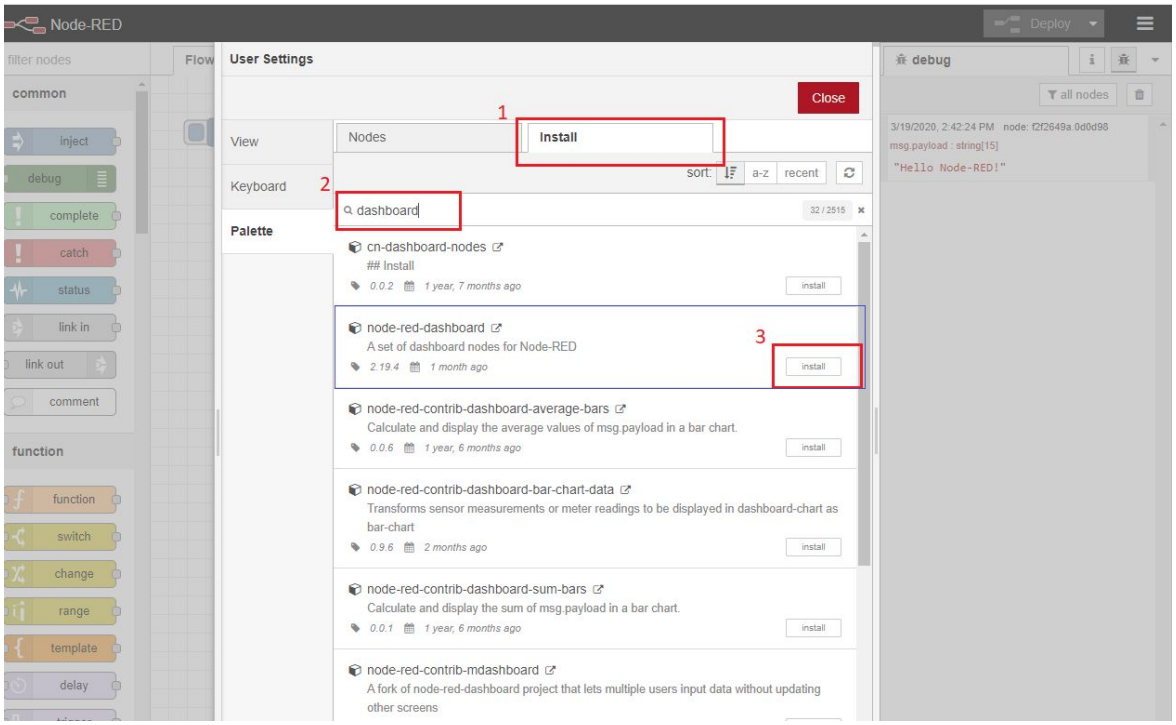


Task-4: Dashboard nodes installation

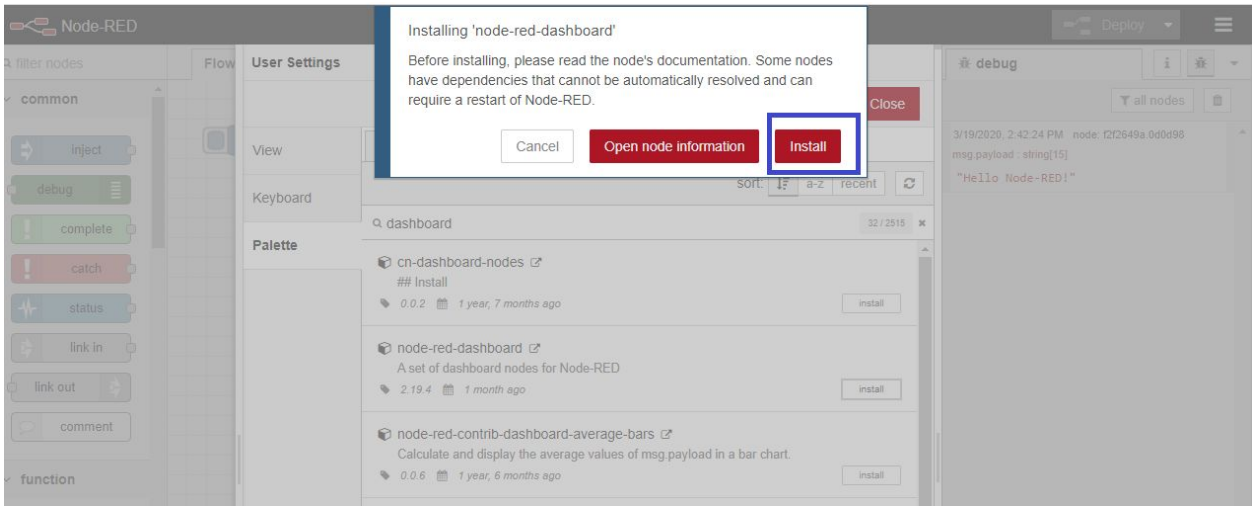
- Navigate to manage palette for installing the nodes required.



- Search for node-red-dashboard for installing the UI nodes used to create web App



- Click on Install in the confirmation popup to install the UI nodes



- Upon successful installation you are prompted with the list of nodes installed. To view the nodes installed search for UI in the palette