

IOT Based Smart Crop Protection System for Agriculture

Team ID - PNT2022TMID49683

Node-RED Service Using Kubernetes

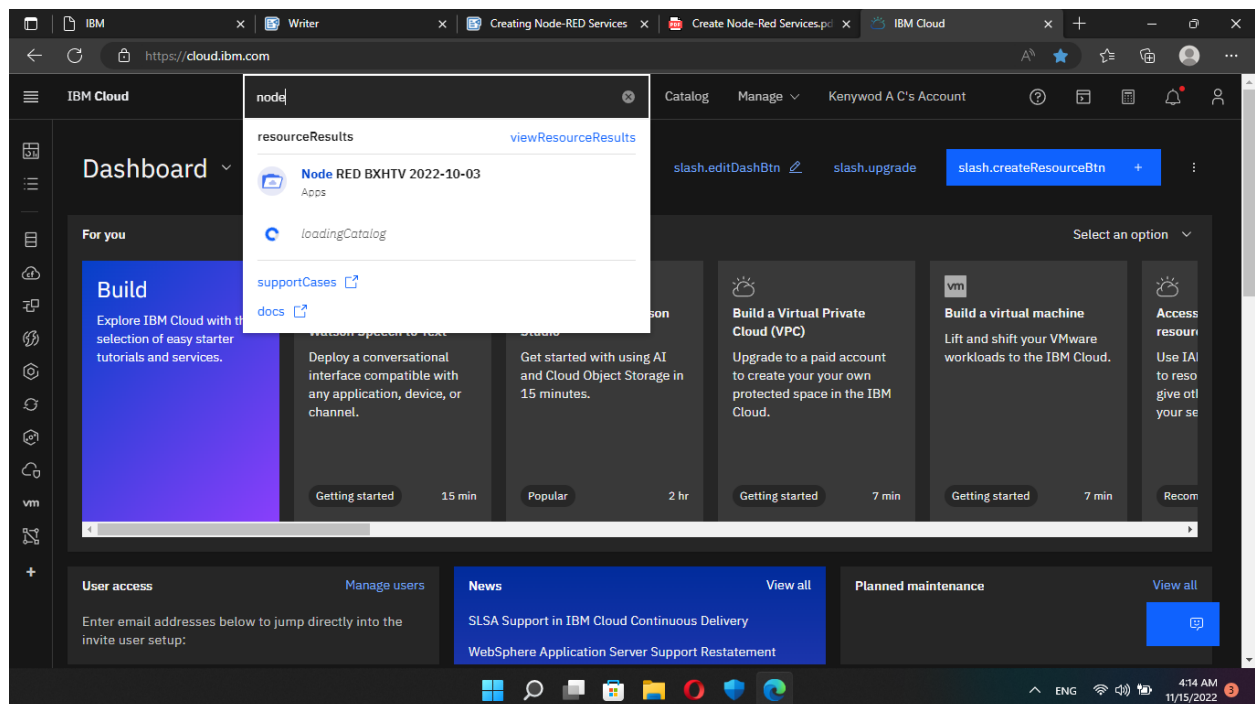
Objectives:

Create a Node-RED starter application running in the IBM Cloud

Steps :-

1. Find the Node-RED Starter Kit in the IBM Cloud catalog
2. Create your application
3. Enable the Continuous Delivery feature
4. Open the Node-RED application
5. Configure your Node-RED application
6. Add extra nodes to your Node-RED palette

Step 1:



Step 2:

The screenshot shows the IBM Cloud Developer console interface. The top navigation bar includes the IBM Cloud logo, a search bar, and links to Catalog, Manage, and the user's account (Kenwywod A C's Account). The main content area is titled 'PNT2022TMID49683 - IOT Based Smart Crop Protection System for Agriculture'. It features a 'Details' section on the left with fields for App URL, Source, Resource group, Deployment target, and Created date. A 'Deployment Automation' section on the right prompts the user to 'Configure Continuous Delivery' and includes a 'Deploy your app' button. A sidebar on the right contains an 'ASK A QUESTION' button. The bottom of the screen shows a Windows taskbar with various application icons and a system clock indicating 10:41 PM on 11/14/2022.

Step 3:

The screenshot displays the IBM Cloud Developer console interface for a Kubernetes cluster named 'mycluster'. The top navigation bar is consistent with the previous screenshot. The main content area is titled 'Clusters / mycluster' and shows the cluster's status as 'Preparing master, workers...'. A warning banner indicates that the cluster 'Expires in 30 days'. The 'Overview' section on the left lists various cluster components. The main content area displays a grid of status indicators for Node status (1 of 1 Pending), Add-on status (0 of 0 Normal), Master status (Unknown), and Ingress status (Pending). A 'Details' section at the bottom provides information about the Cluster ID, Version, Infrastructure, Zones, and other configuration details. A sidebar on the right contains a 'Help' section with links to Log in to your cluster, Deploy your app, Expose your app, Add storage to your app, Connect integrations, Install add-ons, and Troubleshoot. The bottom of the screen shows a Windows taskbar with various application icons and a system clock indicating 12:38 AM on 11/15/2022.

Step 4:

The screenshot shows the IBM Cloud Developer console interface. The browser address bar displays the URL: <https://cloud.ibm.com/developer/appservice/apps/2740bb35-ae54-4ba8-99e6-832e5fdea14a>. The page title is "PNT2022TMID49683" with an "Add tags" link. The "Details" section on the left lists the following information:

Details	
App URL	You must deploy your app first
Source	https://eu-gb.git.cloud.ibm.com/950419104020/PNT2022TMID496...
Resource group	Default
Deployment target	You must deploy your app first
Created	11/15/2022

The "Services" section on the left shows a "Cloudant" service with links for "Open dashboard", "Documentation", and "API reference". Below this are buttons for "Connect existing services" and "Create service".

The "Deployment Automation" section on the right shows the following details:

Deployment Automation	
Name	PNT2022TMID49683
Location	London
Tool integrations	

The "Delivery Pipelines" section on the right lists two pipelines:

Delivery Pipelines	
Name	pr-pipeline
Status	No stages detected
Name	ci-pipeline
Status	In progress

The bottom of the screen shows the Windows taskbar with the time 1:21 AM on 11/15/2022.

Step 5:

The screenshot shows the Node-RED on IBM Cloud landing page. The browser address bar displays the URL: 159.122.175.155:32513. The page title is "Node-RED on IBM Cloud". The main heading is "Node-RED" with the subtitle "Flow-based programming for the Internet of Things".

The page contains the following text:

Node-RED is a programming tool for wiring together hardware devices, APIs and online services in new and interesting ways.

This instance is running as an IBM Cloud application, giving it access to the wide range of services available on the platform.

More information about Node-RED, including documentation, can be found at nodered.org.

A button labeled "Go to your Node-RED flow editor" is located in the center of the page. Below it is a link labeled "Learn how to customise Node-RED".

The bottom of the screen shows the Windows taskbar with the time 3:41 AM on 11/15/2022.

Step 6:

The screenshot displays the Node-RED web interface in a browser. The address bar shows the URL `159.122.175.155:32513/red/#flow/006b8e9a0971e5b1`. The interface includes a left sidebar with a 'filter nodes' search bar and two categories of nodes: 'common' (inject, debug, complete, catch, status, link in, link call, link out, comment) and 'function' (function, switch). The main workspace, titled 'Flow 1', contains a flow with two nodes: a blue 'inject' node labeled 'Hello Node-RED!' and a green 'msg.payload' node, connected by a wire. The right sidebar has an 'Info' tab selected, showing a search bar and a list of flows. Under 'Flows', 'Flow 1' is selected and highlighted in orange. Below the list, the details for 'Flow 1' are shown, including the flow ID '006b8e9a0971e5b1' and a note: 'Pressing enter will edit the first node in the current selection'. The bottom of the screen shows a Windows taskbar with various icons and a system clock indicating 3:42 AM on 11/15/2022.