

## Create Node Red service

Team ID	PNT2022TMID48488
Project Name	Smart waste management system for metropolitan cities

Step 1: Login into IBM CLOUD account

Step2: In catalog, search for node red application

The screenshot shows the IBM Cloud Catalog interface. The browser address bar displays 'cloud.ibm.com/catalog?category=devops'. The page header includes 'IBM Cloud', a search bar, and navigation links for 'Catalog', 'Manage', and 'Akshaya M's Account'. The main content area displays a grid of application cards. The 'Node-RED App' card is highlighted with a blue box. Other visible cards include 'Delphix DevOps Data Platform for IBM Cloud', 'GeneXus', 'Go Gin App', 'Java Liberty App', 'Java Spring App', 'Node.js Express App', 'PAYTESTER', and 'Plesk'. The left sidebar shows filters for 'Location' (Dallas, Frankfurt, London, Montreal, Osaka, Sao Paulo) and 'Support' (IBM supported, Third party supported). The bottom status bar shows the system clock as 20:46 on 02-11-2022.

Step 3: Enter the project details and click on create

Step 4: click on deploy option and deploy

Resource list / App details /

## Node RED DXQJC 2022-11-02 Add tags

Actions...

### Details

App URL You must deploy your app first

Source Download code

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Resource group [Default](#)

Deployment target You must deploy your app first

Created 11/2/2022

### Services

**Cloudant**

[Open dashboard](#) [Documentation](#) [API reference](#)

Credentials ▾

Connect existing services Create service

### Deployment Automation

#### Configure Continuous Delivery

Continuous Delivery is not enabled for this app. Enable Continuous Delivery to automate builds, tests, and deployments through Delivery Pipeline, GitLab, and more.

Deploy your app

### Getting started quickly

#### Configuring your app

To connect services and DevOps toolchains to your app:

1. Use the **Services** card to connect a service to your app. Select an existing service instance, or create a new one. [Learn more.](#)
2. If you want to view the code before your app is deployed, click **Download code** to obtain the .zip file.
3. Click **Deploy your app** in the **Deployment Automation** card to select the deployment target and configure the Continuous Delivery service. The deployment begins automatically.
4. After the deployment begins, you can view the status of the deployment, modify your app, view your repo, or view the app's URL.
5. If you make any changes to your app, be

ASK A QUESTION

26°C Rain off and on

20:46 02-11-2022

(1) WhatsApp

IBM-Project-48101-1660804426

IBM App Development

+

cloud.ibm.com/developer/appservice/apps/4d9d88fa-dba5-4b56-986c-76b3909fe692

IBM Cloud

Search resources and products...

Catalog


Manage


Akshaya M's Account


?


Select your deployment target and configure your DevOps toolchain. After you click **Create**, the toolchain is created, and the deployment process is started automatically.

Deployment target

**Kubernetes Service**  
IBM  
Deploy, scale, and manage your containerized application workloads to highly available clusters.

**Red Hat OpenShift**  
IBM  
Deploy your apps on highly available clusters that come installed with Red Hat OpenShift on IBM Cloud.

**Cloud Foundry**  
IBM  
Deploy and run your applications without managing servers or clusters. A Lite plan is available for quick and easy deployment.

**Code Engine**  
IBM  
Run your app, job, or container on a managed serverless platform. Auto-scale workloads, and pay only for the resources that you consume.

IBM Cloud API key

.....

New +

Container registry region

Dallas

Container namespace

jbmfyhfuw...infcmphsw

Cluster region

Frankfurt

Cluster resource group

Default

Cluster namespace


default

Cluster name

mycluster-free

Deployment type

26°C  
Rain off and on



ENG  
IN

20:47  
02-11-2022

### Step 1. Select the deployment target

Select your deployment target, and then provide the configuration information.

#### IBM Cloud Kubernetes Service

Kubernetes is an open source platform for managing containerized workloads and services across multiple hosts, and offers management tools for deploying, automating, monitoring, and scaling containerized apps with minimal to no manual intervention. [Learn more.](#)

#### Before you begin

- One free Kubernetes cluster is available per account.
- If you don't have an available cluster, you must create one before continuing. Allow 10-20 minutes for the cluster to be provisioned. [Create cluster.](#)

#### Steps

- Create an IBM Cloud API key, or select an existing one from a secrets store.
- Select the container registry region.
- Enter the container registry namespace if it is not already completed.
- Select the region where your Kubernetes cluster is located.
- Select the resource group, cluster namespace, and the cluster name.

ASK A QUESTION

## Step 6: Now drag and drop the nodes and connect nodes with IOT Watson platform

The screenshot displays the Node-RED web interface in a browser window. The browser's address bar shows the URL `127.0.0.1:1880/#flow/57418c723fe9a62f`. The Node-RED interface includes a left sidebar with a 'filter nodes' search bar and two categories of nodes: 'common' and 'function'. The 'common' category contains nodes like 'inject', 'debug', 'complete', 'catch', 'status', 'link in', 'link call', 'link out', and 'comment'. The 'function' category contains 'function', 'switch', 'change', and 'range'. The main workspace, titled 'Flow 1', shows a flow with two nodes: an 'IBM IoT' node (blue with a gear icon and a green 'connected' status indicator) and a 'debug 1' node (green). A curved line connects the output of the 'IBM IoT' node to the input of the 'debug 1' node. A large, semi-transparent 'Wondershare PDFelement' watermark is overlaid diagonally across the workspace. On the right side, there is a 'debug' console with a 'Deploy' button and a 'debug' tab. The bottom of the screen shows a Windows taskbar with various application icons, a system tray with weather information (26°C, Rain to stop), and the date/time (18:22, 02-11-2022).

## Step 7: setup the settings that connects node red service with Watson IOT

The screenshot shows the Node-RED web interface in a browser. The address bar indicates the URL is `127.0.0.1:1880/#flow/57418c723fe9a62f`. The interface includes a left sidebar with node categories (common, function), a central workspace with a flow diagram, and a right sidebar for node configuration and debugging.

In the central workspace, a flow named "Flow 1" contains an "IBM IoT" node (blue icon with a gear) connected to a "debug 1" node (green icon with a list). The "IBM IoT" node has a "connected" status indicator.

The right sidebar shows the "Edit ibmiot in node" configuration panel. The "Properties" section includes the following settings:

- Authentication:** API Key
- API Key:** Akshaya
- Input Type:** Device Event
- Device Type:** All or Test
- Device Id:** All or Test123
- Event:** All or +
- Format:** All or json
- QoS:** 0
- Name:** IBM IoT
- Service:** registered

Below the properties, there is a note: "Use the Input Type property to configure this node to receive Events sent by IoT Devices, Commands sent to IoT Devices, Status Messages referring to IoT Devices, or Status Messages referring to". At the bottom of the panel, there is an "Enabled" checkbox.

The bottom status bar shows the system clock as 20:57 on 02-11-2022, and the weather as 26°C with rain off and on.



## Step 8: Finally, output can be seen in node red service

The screenshot displays the Node-RED web interface in a browser. The address bar shows the URL `127.0.0.1:1880/#flow/57418c723fe9a62f`. The interface includes a left sidebar with node categories (common and function), a central workspace with a flow diagram, and a right sidebar for node configuration and debugging.

In the central workspace, a flow named "Flow 1" contains an "IBM IoT" node (blue) connected to a "debug 1" node (green). The "IBM IoT" node is marked as "connected".

The right sidebar shows the configuration for the "IBM IoT" node. The "Properties" section includes the following settings:

- Authentication: API Key
- API Key: Akshaya
- Input Type: Device Event
- Device Type: All or Test
- Device Id: All or Test123
- Event: All or +
- Format: All or json
- QoS: 0
- Name: IBM IoT
- Service: registered

A yellow tooltip message is visible at the bottom of the configuration panel:

Use the Input Type property to configure this node to receive Events sent by IoT Devices, Commands sent to IoT Devices, Status Messages referring to IoT Devices, or Status Messages referring to

The bottom status bar shows the system clock as 20:57 on 02-11-2022, along with weather information (26°C, Rain off and on) and various system icons.

```

11 Nov 12:34:12 - [info] Dashboard version 3.1.0 started at /ui
11 Nov 12:34:12 - [info] Settings file : C:\Users\AMORA_EDITH\code-red\settings.js
11 Nov 12:34:12 - [info] Context store : default [module-memory]
11 Nov 12:34:12 - [info] User directory : Users\AMORA_EDITH\code-red
11 Nov 12:34:12 - [warn] Projects disabled : editorTheme.projects.enabled=false
11 Nov 12:34:12 - [info] Flows file : Users\AMORA_EDITH\code-red\flows.json
11 Nov 12:34:12 - [warn]

Your flow credentials file is encrypted using a system-generated key.

If the system-generated key is lost for any reason, your credentials
file will not be recoverable, you will have to delete it and re-enter
your credentials.

You should set your own key using the 'credentialSecret' option in
your settings file. Node-RED will then re-encrypt your credentials
file using your chosen key the next time you deploy a change.

11 Nov 12:34:12 - [info] Server now running at http://127.0.0.1:18080/
11 Nov 12:34:12 - [info] Starting flows
11 Nov 12:34:12 - [info] Started flows
11 Nov 12:47:51 - [info] Stopping flows
11 Nov 12:47:51 - [info] Stopped flows
Terminate batch job (Y/N)? y

C:\Users\AMORA_EDITH\code-red
C:\Users\AMORA_EDITH\code-red
11 Nov 12:48:03 - [info]

Welcome to Node-RED

11 Nov 12:48:03 - [info] Node-RED version: v3.0.2
11 Nov 12:48:03 - [info] Node.js version: v14.17.1
11 Nov 12:48:03 - [info] Windows_NT x64 10.0.19045 x64
11 Nov 12:48:04 - [info] Loading palette nodes
11 Nov 12:48:05 - [info] Dashboard version 3.1.0 started at /ui
11 Nov 12:48:05 - [info] Settings file : C:\Users\AMORA_EDITH\code-red\settings.js
11 Nov 12:48:05 - [info] Context store : default [module-memory]
11 Nov 12:48:05 - [info] User directory : Users\AMORA_EDITH\code-red
11 Nov 12:48:05 - [warn] Projects disabled : editorTheme.projects.enabled=false
11 Nov 12:48:05 - [info] Flows file : Users\AMORA_EDITH\code-red\flows.json
11 Nov 12:48:05 - [warn]

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file using your chosen key the next time you deploy a change.

11 Nov 12:48:05 - [info] Server now running at http://127.0.0.1:18080/
11 Nov 12:48:05 - [info] Starting flows
11 Nov 12:48:05 - [info] Started flows
  
```

