

Create Node Red service

Team ID	PNT2022TMID45346
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 displays the IBM Cloud Catalog interface. The browser tabs at the top include '(1) WhatsApp', 'IBM-Project-48101-1660804426', and 'Catalog - IBM Cloud'. The address bar shows 'cloud.ibm.com/catalog?category=devops'. The header features the 'IBM Cloud' logo, a search bar, and navigation links for 'Catalog', 'Manage', and 'Akshaya M's Account'. Below the header, a sidebar on the left allows filtering by 'Location' (Dallas, Frankfurt, London, Montreal, Osaka, Sao Paulo) and 'Support' (IBM supported, Third party supported). The main content area is a grid of application templates:

- Delphix DevOps Data Platform for IBM Cloud** (By catalog:filter.ibm_third_party): Deliver terabytes of data in minutes to accelerate application development in IBM Cloud. Includes Terraform, IBM Cloud Schematics, and is third party supported.
- GeneXus** (By GeneXus): Create and evolve apps in the most efficient way: automatically. Agile development tool that generates and maintain everything from databases to code,.... Includes Server Images, IBM Cloud Schematics, and is third party supported.
- Go Gin App** (By IBM): Start building your next Go Gin app on IBM Cloud. Includes Starter kits, IBM Cloud Kubernetes Service, and Red Hat OpenShift.
- Java Liberty App** (By IBM): Start building your next Java Liberty app on IBM Cloud. Includes Starter kits, IBM Cloud Kubernetes Service, and Red Hat OpenShift.
- Java Spring App** (By IBM): Start building your next Java Spring app on IBM Cloud. Includes Starter kits, IBM Cloud Kubernetes Service, and Red Hat OpenShift.
- Node-RED App** (By IBM): Start building your next Node-RED app on IBM Cloud. Includes Starter kits, IBM Cloud Kubernetes Service, and Red Hat OpenShift.
- Node.js Express App** (By IBM): Start building your next Node.js Express app on IBM Cloud.
- PAYTESTER** (By CLAI PAYMENTS USA LLC): Test any payment system from any channel, and get rid of the complexity of testing multiple channels and transactions.
- Plesk** (By Plesk International GmbH): Plesk is the leading WebOps platform to build, secure and run websites, applications and hosting businesses.

The Windows taskbar at the bottom shows the date as 02-11-2022 and time as 20:46.

Step 3: Enter the project details and click on create

Step 4: click on deploy option and deploy

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

IBM Cloud Search resources and products... Catalog Manage Akshaya M's Account

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
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

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20:46 02-11-2022


Step 5: Set up the environment for deploying and click on create


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 Container registry namespace

Dallas jbmfyhfuvvmqrrymgrbnnfcumphsw

Cluster region Cluster resource group Cluster namespace Cluster name

Frankfurt Default default mycluster-free

Deployment type

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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

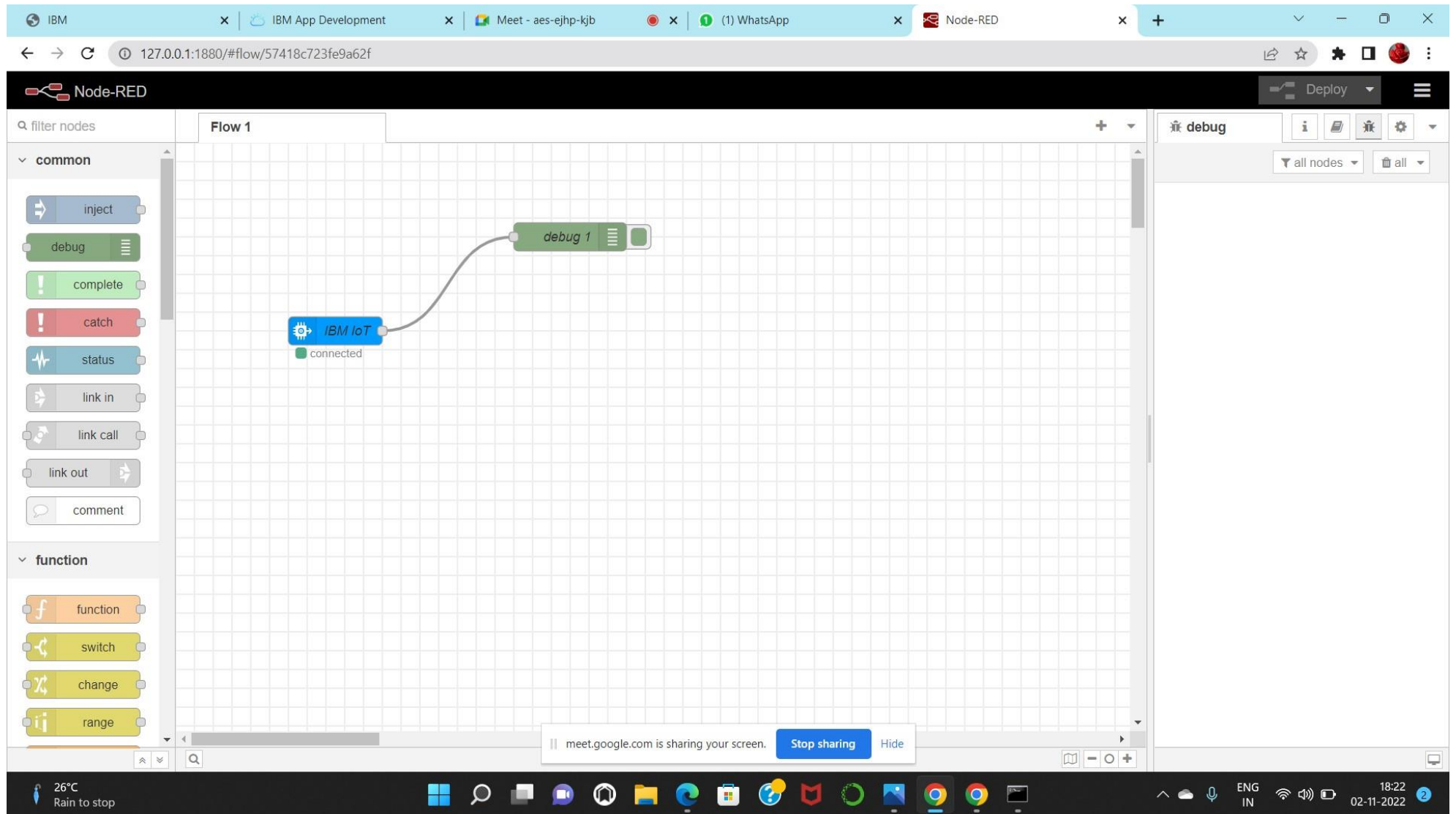
- One free Kubernetes cluster is available per account.
- If you don't have an available cluster, you must create one before continuing. Allow 10-20 minutes for the cluster to be provisioned. [Create cluster.](#)

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



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

Node-RED interface showing a flow with an IBM IoT node connected to a debug node. The right panel displays the configuration for the IBM IoT node.

Flow 1: A flow diagram showing an IBM IoT node (labeled "connected") connected to a debug node (labeled "debug 1").

Edit ibmiot in node Properties:

- 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

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

127.0.0.1:1880/#editor-tab-properties

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20:57 02-11-2022

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

2 WhatsApp

IBM-Project-48101-1660804426/

IBM App Development

Node-RED

+

127.0.0.1:1880/#flow/57418c723fe9a62f

Node-RED

Deploy

filter nodes

common

inject

debug

complete

catch

status

link in

link call

link out

comment

function

switch

change

range

Flow 1

debug 1

IBM IoT

connected

debug

all nodes

all

11/2/2022, 8:57:33 PM node: debug 1
iot-2/type/Test/id/Test123/evt/status/fmt/json : msg.payload : Object
{ temperature: 103, humidity: 31 }
11/2/2022, 8:57:35 PM node: debug 1
iot-2/type/Test/id/Test123/evt/status/fmt/json : msg.payload : Object
{ temperature: 96, humidity: 76 }
11/2/2022, 8:57:37 PM node: debug 1
iot-2/type/Test/id/Test123/evt/status/fmt/json : msg.payload : Object
{ temperature: 56, humidity: 90 }
11/2/2022, 8:57:39 PM node: debug 1
iot-2/type/Test/id/Test123/evt/status/fmt/json : msg.payload : Object
{ temperature: -4, humidity: 13 }
11/2/2022, 8:57:41 PM node: debug 1
iot-2/type/Test/id/Test123/evt/status/fmt/json : msg.payload : Object
{ temperature: 3, humidity: 19 }
11/2/2022, 8:57:43 PM node: debug 1
iot-2/type/Test/id/Test123/evt/status/fmt/json : msg.payload : Object
{ temperature: 50, humidity: 37 }

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Windows Taskbar

ENG IN

20:57 02-11-2022

```
11/2/2022, 8:57:33 PM node: debug 1
iot-2/type/Test/id/Test123/evt/status/fmt/json : msg.payload :
Object
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```

