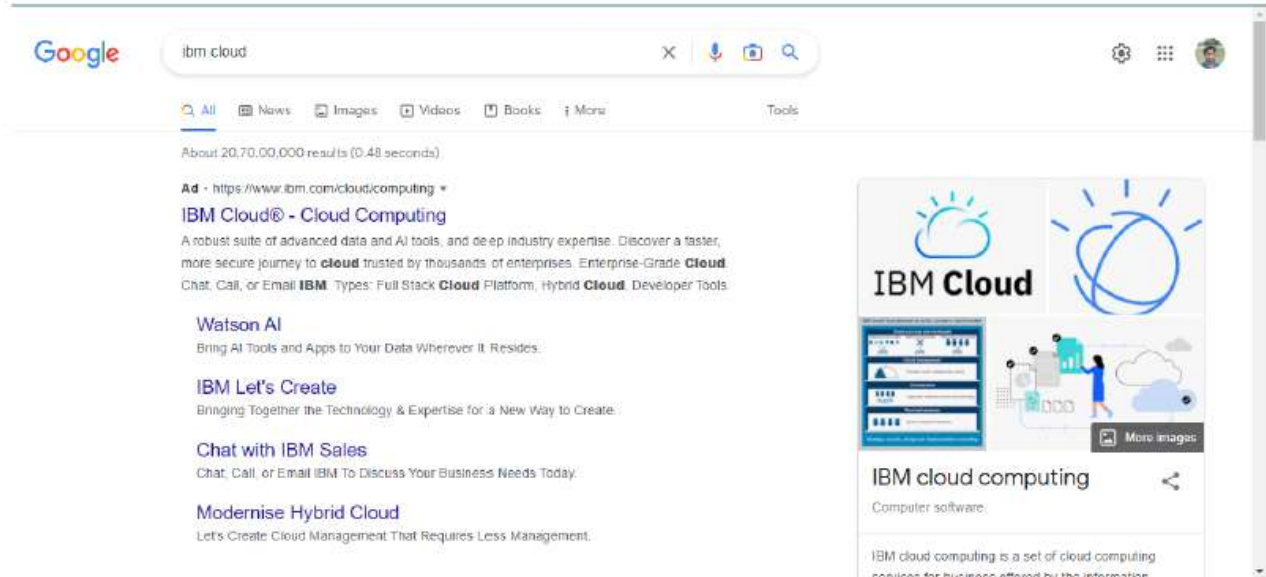


## Create and Configure IBM Cloud Services

TEAM ID: PNT2022TMID34370

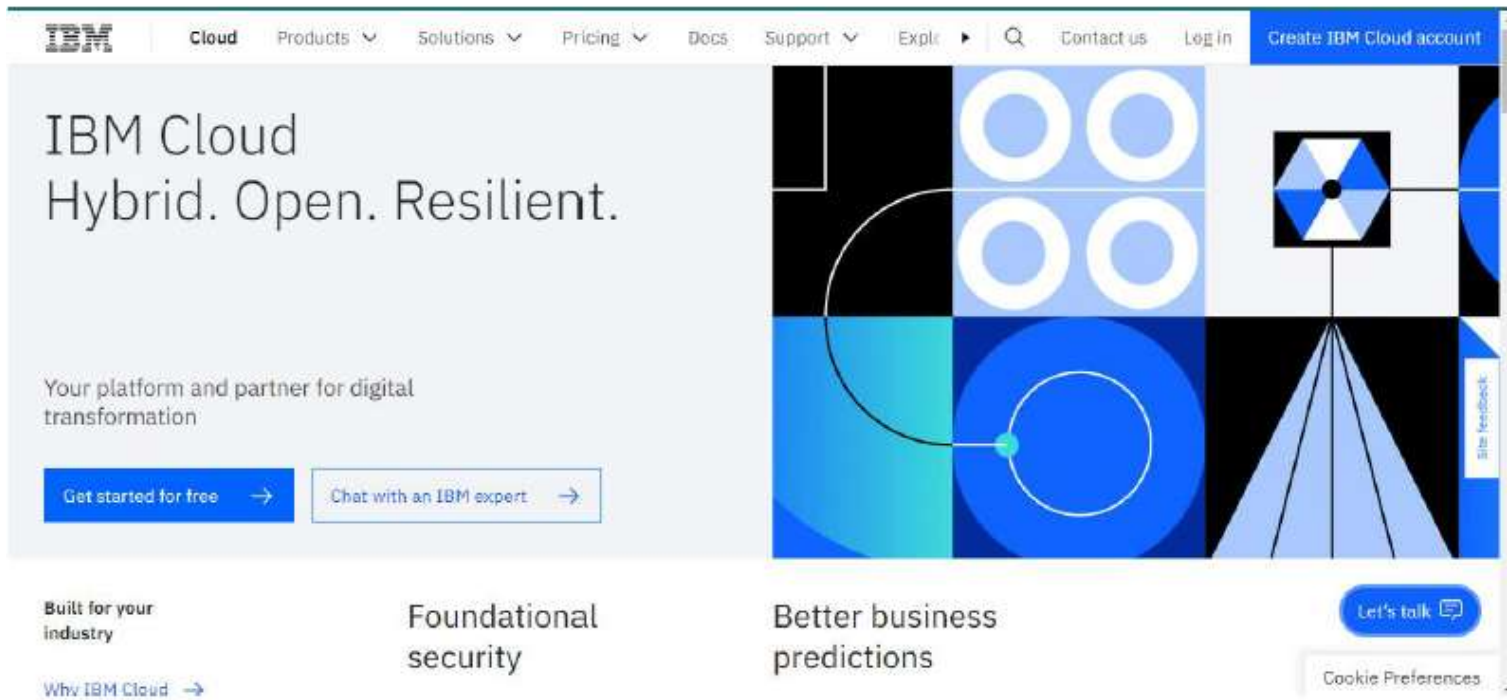
### STEP 1:

Type IBM Cloud in Google and click on the first link.



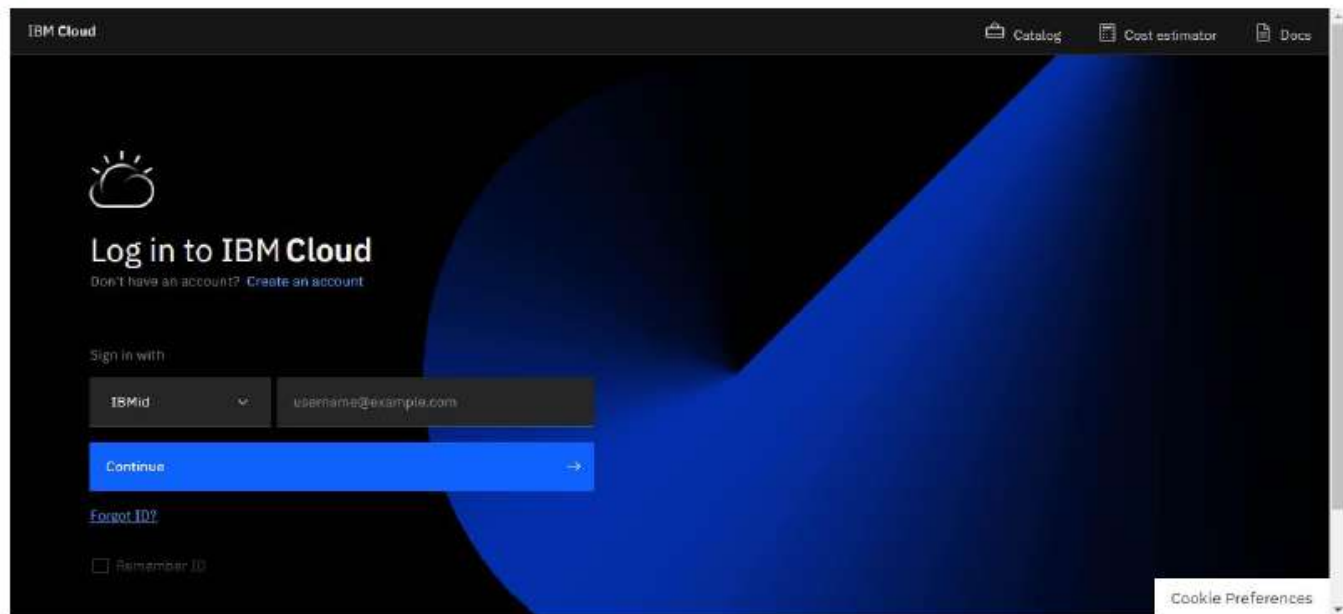
### STEP 2:

Click on create IBM Cloud Account Now and enter the details.



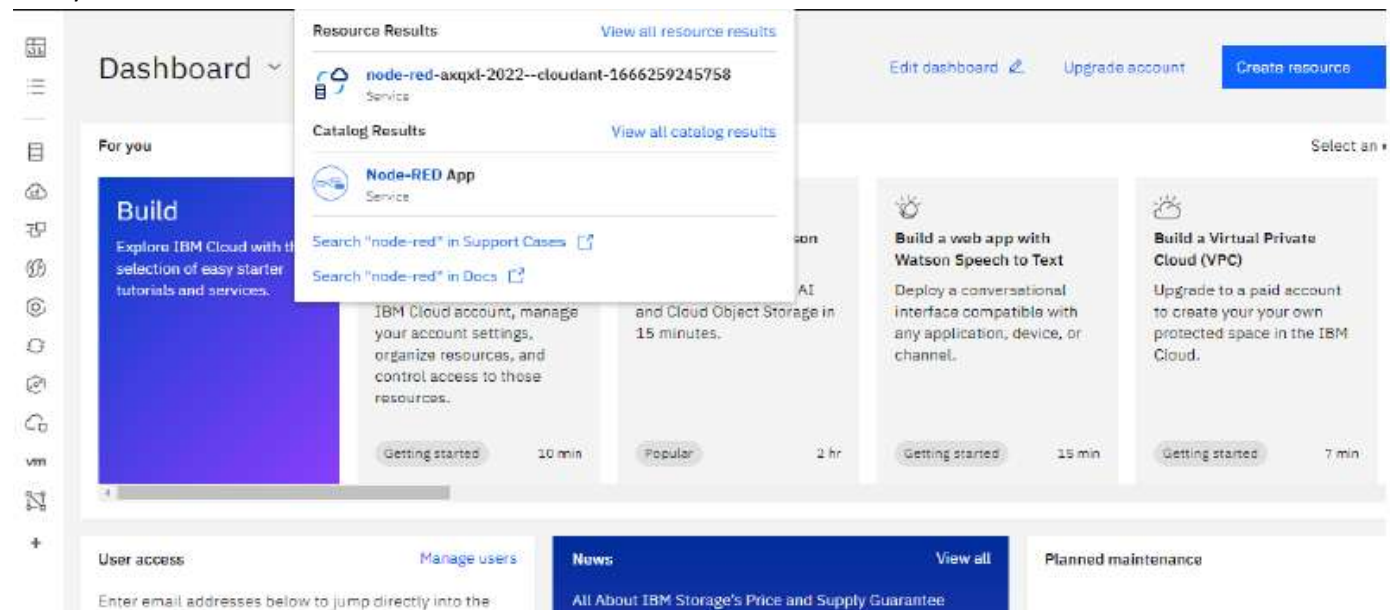
### STEP 3:

You will get the email with your password. Type your mail Id and the password then click on the login button.



### STEP 4:

Now you are in Dashboard. Now search Node-Red and click on it.



### STEP 5:

Now click on Get Started. After choose node-red-xxxxxxx in pricing plan or you can choose Lite. Then click on create option.

Examples: env:dev, version-1

Platform

☒ Node.js

Service details

**Cloudant**★

★ = You have existing instances of this service available to use in this kit. If you wish to use the existing service, select it from the pricing plan menu.

Region Frankfurt Resource group Default

Pricing plan

node-red-axqxl-2022--cloudant-1666259245758

[Pricing details](#) [Terms](#)

[Cancel](#) [Create](#)

#### STEP 6:

Now you will be redirected to your node-red app page.

Resource list / App details /

## Node RED CBGMG 2022-11-11

Add tags

Actions...

### Details

App URL	You must deploy your app first
Source	<a href="#">Download code</a>
Resource group	Default
Deployment target	You must deploy your app first
Created	11/11/2022

### Services

Cloudant

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

Credentials

### Deployment Automation

#### Configure Continuous Delivery

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

[Deploy your app](#)

#### STEP 7:

Now click Deploy your app option.

Resource list / App details /


## Node RED CBGMG 2022-11-11

Select the deployment target    Configure the DevOps toolchain

### Deployment Automation


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.



#### Getting started with apps

**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 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 ready.

### STEP 8:

Now choose Kubernetes Service and below you will see IBM Cloud API Key there click on New and then click OK. Your API Key will be generated.

IBM Cloud API key

.....

   **New** +

**Note:** Your cluster status must be available before you can select it.


Container registry region:

Container registry namespace:

Cluster region:  Cluster resource group:  Cluster namespace:  Cluster name:

**Create new** +

Deployment type



**Helm**

4. Select the region where your Kubernetes cluster is located.

5. Select the resource group, cluster namespace, and the cluster name.


6. The deployment type of Helm is selected for you.

7. Click Next.

<https://cloud.ibm.com/container-kubernetes/launch>

### STEP 9:

Now click on Create New below the cluster name. You will be redirected to new page. In new page, choose pricing plan as Free and then click on Create.



# Kubernetes cluster

Author: IBM • Docs • API docs

[Create](#)
[About](#)

Deliver your apps quicker across clouds with **Red Hat OpenShift**

## Plan details

Learn more about the differences between plans in our [docs](#).

Pricing plan:

Free

## Kubernetes version

Summary

United

### Kubernetes cluster

#### Worker node

Free - 2 vCPU's 4GB RAM  
Virtual - shared  
Ubuntu 18

### Total estimated cost

Additional charges for networking might apply.  
Actual monthly total will vary with usage.  
Estimate does not include costs for storage.


Create

Add to estimate

STEP 10:

For cluster creation you need to wait for 20 minutes. After creation come back to node red app tab.

Clusters /



## mycluster-free

Normal Expires in 30 days Add tags

[Help](#)
[Kubernetes dashboard](#)

Actions...

### Overview

- Worker nodes
- Worker pools
- DevOps New

Expires in 30 days:

Be sure to back up your data, your cluster will be deleted in 30 days. To access the full capabilities of the service, try out a [standard cluster](#).

Node status

1 of 1

Normal

Details

Add-on status

0 of 0

Normal

Details

Master status

Normal

Docs

Ingress status

Unknown

Docs

### Details

Cluster ID	Version	Infrastructure	Zones
cdeth3gF8uv95e	1.24.7_1542	Classic	Milan 01
Created	Resource group	Image security enforcement	

### Help

- Log in to your cluster
- Deploy your app
- Expose your app
- Add storage to your app
- Connect integrations
- Install add-ons
- Troubleshoot

STEP 11:

In cluster name, choose mycluster-free and click on Next.

IBM Cloud API key

.....

New +

Container registry region

Dallas

Container registry namespace

Container registry namespace

Cluster region

Frankfurt

Cluster resource group

Default

Cluster namespace

default

Cluster name

mycluster-free

Deployment type

Helm

Cancel

Next

- Select the region where your Kubernetes cluster is located.
- Select the resource group, cluster namespace, and the cluster name.
- The deployment type of Helm is selected for you.
- Click **Next**.

STEP 12:  
Then click on Create.

Resource list / App details /

Node RED CBGMG 2022-11-11

Select the deployment target

Configure the DevOps toolchain

Configure the DevOps toolchain

Give your toolchain a name and select the region to create your toolchain in.

DevOps toolchain name

NodeREDCBGMG2022-11-11

Accept the default name, or enter a value up to 100 characters.

Region

Dallas

Back

Create

Getting started with apps

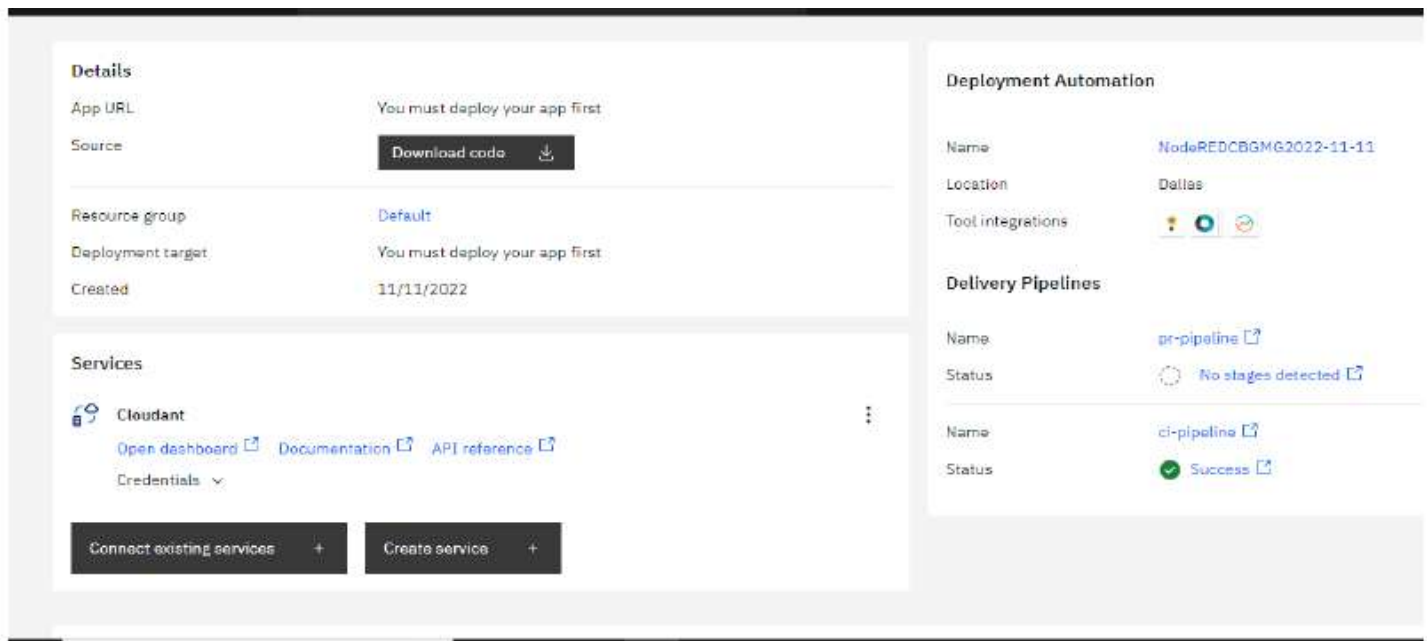
Step 2. Configure the DevOps toolchain

The DevOps toolchain includes a Dev Pipeline tool where you can check the deployment status, start builds, manage deployment, and view logs and history.

- Provide a name for your toolchain.
- Select the region where your toolchain is created.
- Select the resource group that you want to use for your new toolchain. [Learn more](#)
- After you're finished with your configuration, click **Create**.

STEP 13:  
You need to wait until ci-pipeline status success.





#### STEP 14:

Now go to Dashboard, in sidebar menu choose Resource list > Developer Tools. Click on your Node-red (Cloud Application)

	Name	Group	Location	Product	Status	Tags
	Filter by name or IP address...	Filter by group or org...	Filter...	Filter...	Filter...	Filter...
	AI / Machine Learning (0)					
	Analytics (0)					
	Blockchain (0)					
	Databases (1+)					
	Developer tools (4)					
	Continuous Delivery	Default	Dallas	Continuous Delivery	Active	
	Node RED AXQXL 2022-10-20	Default	Global	Cloud Application		
	Node RED CBGMG 2022-11-11	Default	Global	Cloud Application		
	NodeREDCBGMG2022-11-11	Default	Dallas	Toolchain		
	Logging and monitoring (0)					
	Migration (0)					

<https://cloud.ibm.com/resources#main-content>

#### STEP 15:

Now you will be redirected your Node-red app there you can see your App url and Source. To open Node-red editor copy the app url and paste in new tab.

Resource list / App details /

## Node RED CBGMG 2022-11-11 [Add tags](#)

[Actions...](#)

### Details

App URL	<a href="http://169.150.192.123/">http://169.150.192.123/</a>
Source	<a href="https://us-south.git.cloud.ibm.com/312819106035/NodeREDCBGMG2022-11-11">https://us-south.git.cloud.ibm.com/312819106035/NodeREDCBGMG2022-11-11</a>
Resource group	Default
Deployment target	mycluster-free
Created	11/11/2022

### Services

**Cloudant**

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

[Credentials](#)

[Connect existing services](#) [Create service](#)

### Deployment Automation

Name	NodeREDCBGMG2022-11-11
Location	Dallas
Tool integrations	

### Delivery Pipelines

Name	pr-pipeline
Status	No stages detected
Name	ci-pipeline
Status	Success

## STEP 16:

Click on Next and then choose Not Recommended and click on next and then click finish. Then click on go to Node-RED flow editor. Now start work on your flows.

← → ↻ ⚠ Not secure | 169.150.192.123

## Node-RED on IBM Cloud

# Node-RED

Flow-based programming for the Internet of Things

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](https://nodered.org)

[Go to your Node-RED flow editor](#)

[Learn how to customise Node-RED](#)