

IBM NODE RED APPLICATION

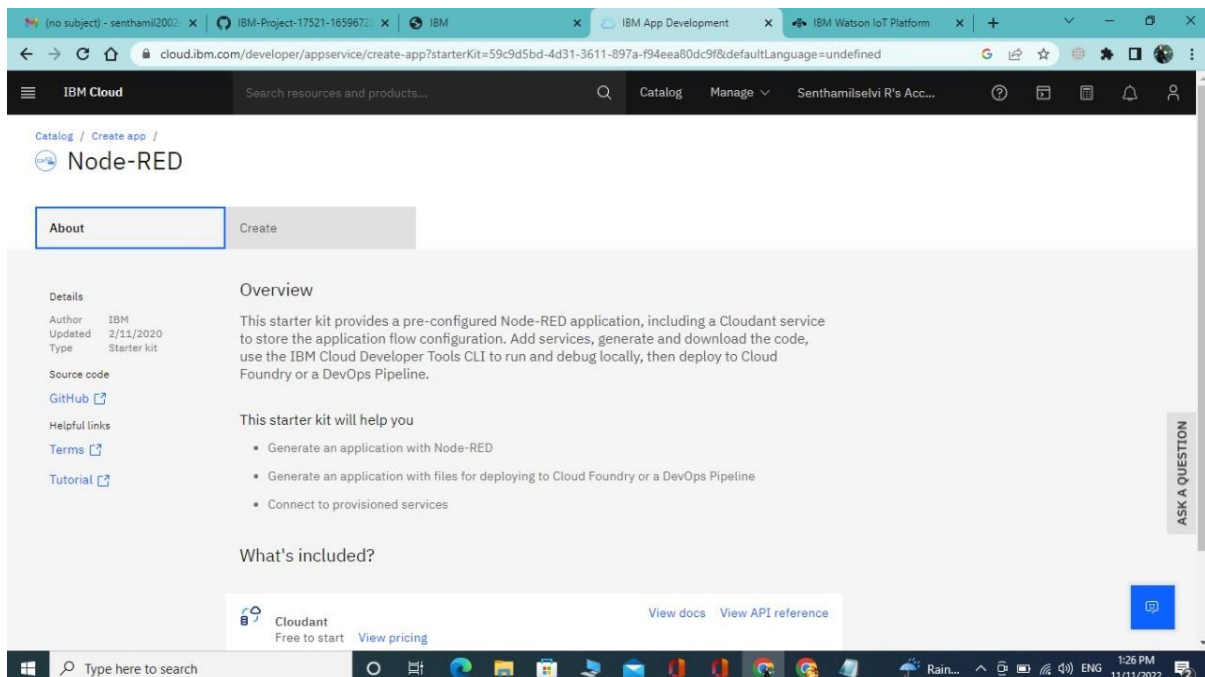
Date	12 NOVEMBER 2022
Team ID	PNT2022TMID43127
Project Name	SMART WASTE MANAGEMENT SYSTEM FOR METROPOLITAN CITIES

AIM:

To create IBM Node Red Application for web app development.

STEPS:

1.Creating Node-Red on IBM Cloud



2.Start deploy your app

The screenshot shows the IBM Cloud console interface for configuring a new app deployment. The browser tabs include 'no subject - senthami...', 'IBM-Project-17521-1...', 'IBM', 'IBM App Development', 'IBM Cloud Account', and 'IBM Watson IoT Platform'. The URL is 'cloud.ibm.com/developer/appservice/apps/6ba80572-3f04-44de-9b5e-58c59deea82'. The console header shows 'IBM Cloud', a search bar, and navigation links for 'Catalog', 'Manage', and the user 'Senthamiselvi R's Acc...'. The main configuration area includes: 'IBM Cloud API key' with a masked field and a 'New +' button; 'Number of instances' set to '1'; 'Memory allocation per instance' with a slider from 64 MB to 256 MB; 'Region' set to 'London'; 'Organization' set to 'senthamil'; 'Space' set to 'weather monitoring'; 'Host' set to 'node-red-jjxcr-2022-11-11'; and 'Domain' set to 'eu-gb.mybluemix.net'. At the bottom are 'Cancel' and 'Next' buttons. A vertical 'ASK A QUESTION' button is on the right. The Windows taskbar at the bottom shows the search bar and various application icons, with the system clock indicating 1:29 PM on 11/11/2022.

The screenshot shows the 'Node RED JJXCR 2022-11-11' app details page in the IBM Cloud console. The browser tabs are the same as in the previous screenshot. The URL is 'cloud.ibm.com/developer/appservice/apps/6ba80572-3f04-44de-9b5e-58c59deea82'. The console header is identical. The page title is 'Node RED JJXCR 2022-11-11' with an 'Add tags' link and an 'Actions...' dropdown. The 'Details' section shows: 'App URL' with a message 'You must deploy your app first'; 'Source' with a 'Download code' button; 'Resource group' set to 'Default'; 'Deployment target' with a message 'You must deploy your app first'; and 'Created' date '11/11/2022'. The 'Services' section shows 'Cloudant' with links for 'Open dashboard', 'Documentation', and 'API reference', and a 'Credentials' dropdown. At the bottom are 'Connect existing services' and 'Create service' buttons. The 'Deployment Automation' section on the right has a 'Configure Continuous Delivery' heading, a message 'Continuous Delivery is not enabled for this app. Enable Continuous Delivery to automate builds, tests, and deployments through Delivery Pipeline, GitLab, and more.', and a 'Deploy your app' button. A vertical 'ASK A QUESTION' button is on the right. The Windows taskbar at the bottom shows the search bar and various application icons, with the system clock indicating 1:27 PM on 11/11/2022.

Resource list / App details /

Node RED JJXCR 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 Foundry

Cloud Foundry is the premier industry standard Platform-as-a-Service (PaaS) that ensures fast, easy, and reliable deployment of cloud-native apps. Cloud Foundry ensures that the build and deploy aspects of coding remain carefully coordinated with any attached services — resulting in quick, consistent and reliable iterating of applications. Cloud Foundry has a Lite plan that allows quick deployments for testing purposes.

Before you begin

- If your account doesn't have a Cloud Foundry org, you must create one. [Create org.](#)

ASK A QUESTION

3. Creating cloud Foundry Organization for deploying the app

cloud.ibm.com/account/cloud-foundry

Cloud Foundry Orgs

Create

Name	Date Created	Spaces	Roles	Actions
senthamil	11/7/2022	1	Manager	

The screenshot shows the IBM Cloud Foundry Orgs page for the organization 'senthamil'. The left sidebar contains navigation links for Account, Account resources, Resource groups, Cloud Foundry orgs (selected), Licenses and entitlements, Tags, Dashboards, Account settings, IBM Cloud Shell settings, Notification distribution list, Classic infrastructure, Subscriptions, Audit log, and Company information. The main content area has tabs for Spaces, Users, Domains, and Info. The 'Spaces' tab is active, displaying a table with columns: Name, Region, ID, Manager, Date Created, and Actions. One space is listed: 'weather monitoring' in the 'United Kingdom' region with ID 'e2bfd09f-0c1a-4763-9a66-22971b1fec28'. A blue 'Add a space' button is in the top right. The bottom of the screen shows a Windows taskbar with various application icons and a system tray with the date and time (11/11/2022, 1:28 PM).

Name	Region	ID	Manager	Date Created	Actions
weather monitoring	United Kingdom	e2bfd09f-0c1a-4763-9a66-22971b1fec28	✓	11/7/2022	

4. Pipeline dashboard

The screenshot shows the IBM Cloud CI Pipeline Dashboard. The left sidebar contains navigation links for PipelineRuns (selected), Definitions, Worker, Triggers, Environment properties, and Other settings. The main content area has filters for Status (All) and Trigger (All). A table displays pipeline runs with columns: Run, Status, and a timestamp. One run is listed: '#1 simple-hosted-pipeline-3ad11f9f-81ec-4211-aed8-4074ecd1f3d5' with status 'Succeeded' and timestamp 'Nov 11, 1:29 PM'. A blue 'Run pipeline' button is in the top right. The bottom of the screen shows a Windows taskbar with various application icons and a system tray with the date and time (11/11/2022, 2:10 PM).

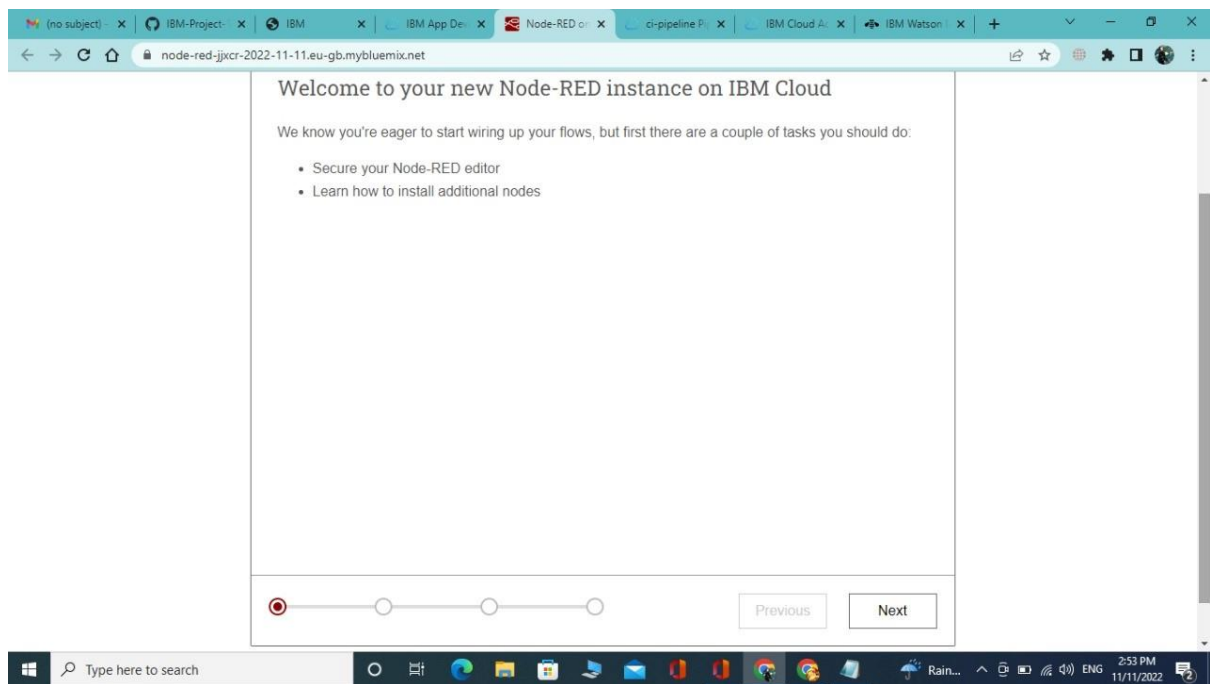
Run	Status	Timestamp
#1 simple-hosted-pipeline-3ad11f9f-81ec-4211-aed8-4074ecd1f3d5 Manual manual-run	Succeeded	Nov 11, 1:29 PM 9m 44s

5. Simple hosted Pipeline

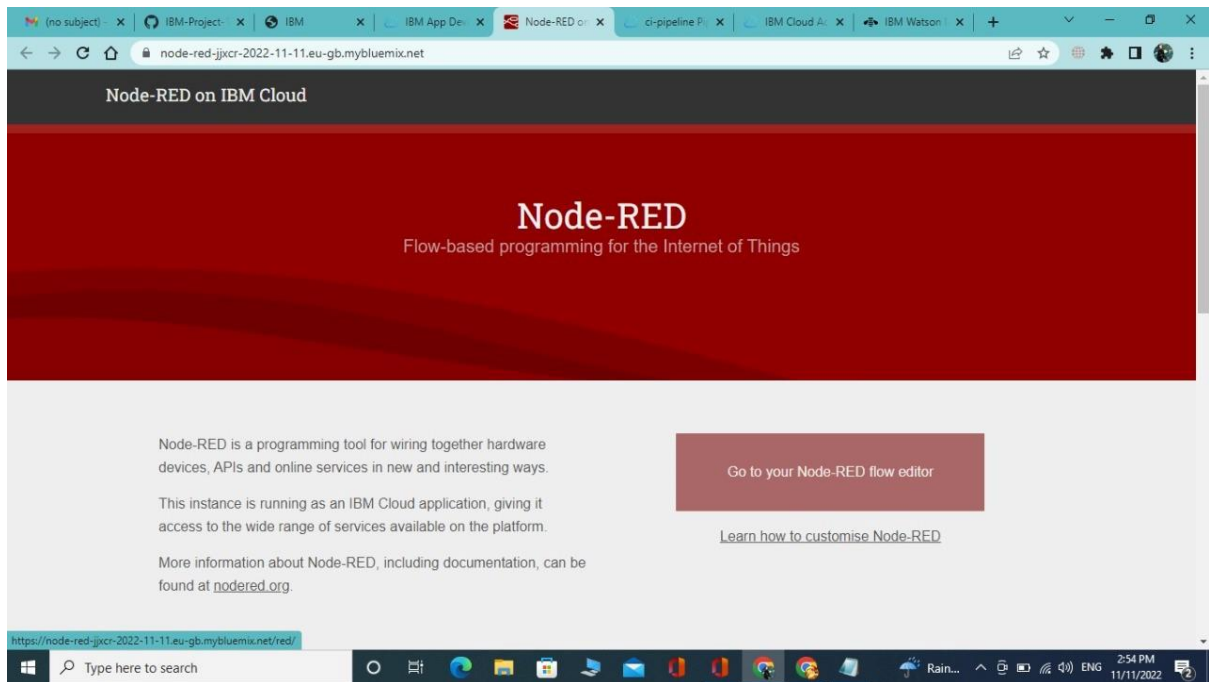
The screenshot shows the IBM Cloud DevOps interface for a PipelineRun. The breadcrumb navigation is "Toolchains / NodeREDJJXCR2022-11-11 / ci-pipeline /". The main heading is "ci-pipeline PipelineRun". On the left, a sidebar lists "PipelineRuns", "Definitions", "Worker", "Triggers", "Environment properties", and "Other settings". The main content area shows the PipelineRun details for "simple-hosted-pipeline-3ad11f9f-81ec-4211-aed8-4074ec...". It indicates the pipeline "Succeeded" with 6 tasks completed, 0 failed, 0 cancelled, and 0 skipped. The duration is 9m 44s. It was triggered by "senthamilselvi.cs20@sriet.ac.in" via "manual-run" using "IBM Managed workers in LONDON". A list of tasks is shown on the left: "extract-repository-url", "extract-value-jq", "clone-task", "code-risk-analyzer", "build", and "rolling-deploy-task". The "extract-value-jq" task is highlighted as "Completed" with a duration of 0s. The logs for this task show a successful completion message: "Step completed successfully".

The screenshot shows the IBM Cloud DevOps interface for an App. The breadcrumb navigation is "Resource list / App details /". The main heading is "Node RED JJXCR 2022-11-11". On the left, a sidebar lists "Details", "Services", and "Deployment Automation". The main content area is divided into three sections: "Details", "Services", and "Deployment Automation". The "Details" section shows the App URL, Source, Resource group, Deployment target, and Created date. The "Services" section shows the Cloudant service and options to connect existing services or create a new one. The "Deployment Automation" section shows the Name, Location, Tool integrations, and Delivery Pipelines. The "ci-pipeline" is listed as a successful delivery pipeline, while the "pr-pipeline" has no stages detected.

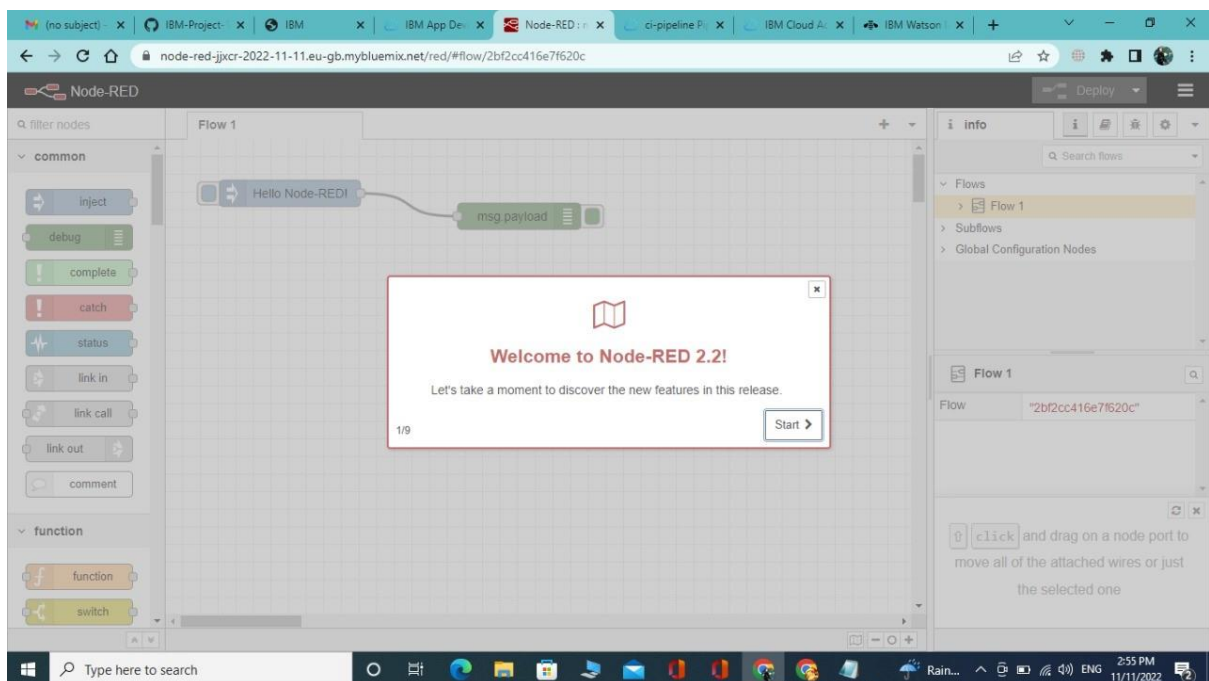
6. Creating Node-Red instance on IBM Cloud

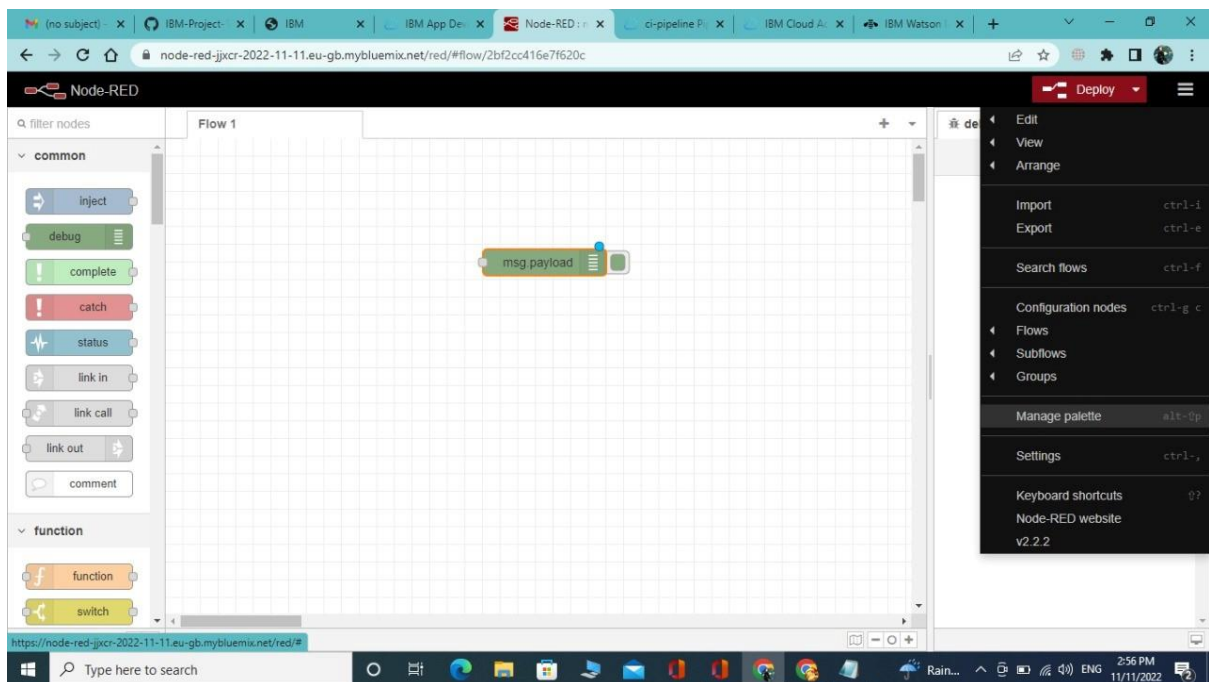
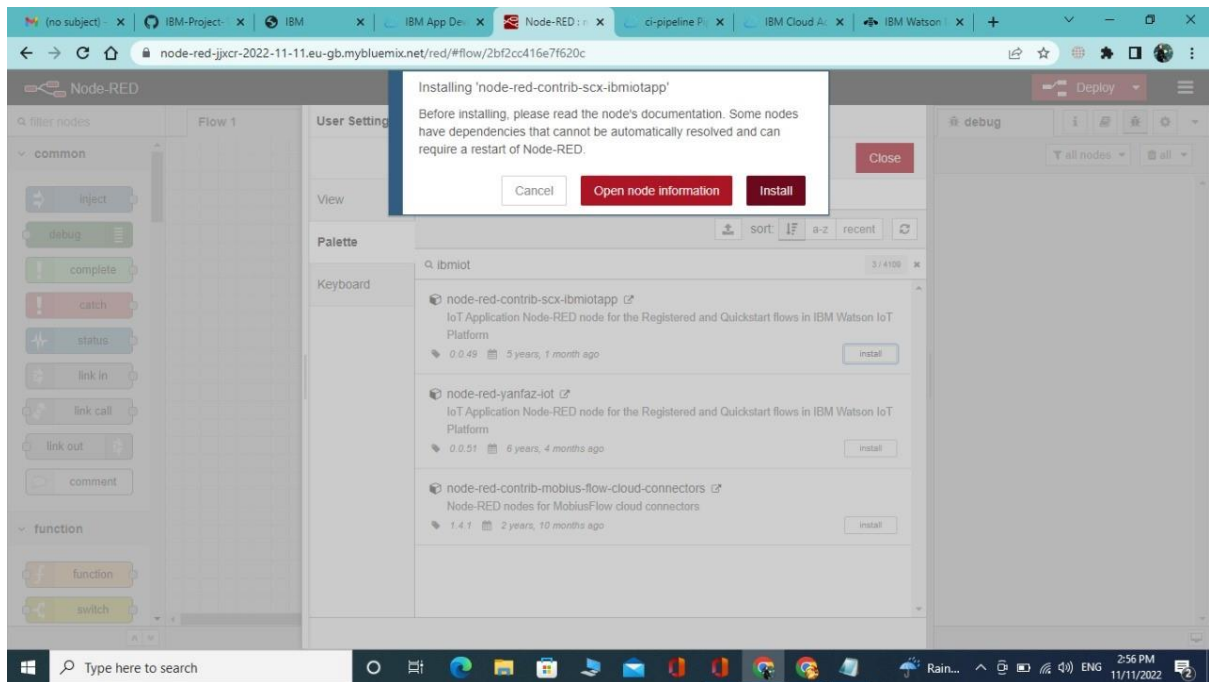


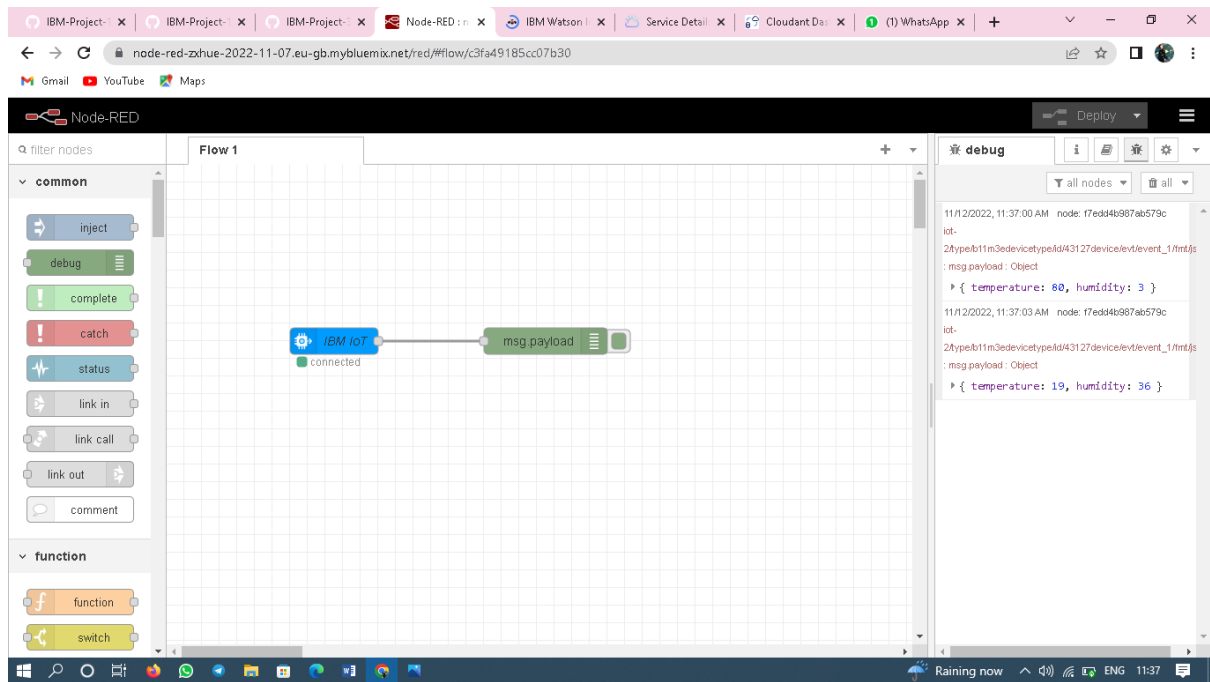
7. Node app Home page will be available after you click on the “ Go to your Node Red flow editor”.



8. Node-Red Welcome screen







Result:

The IBM Node Red Application for Web application development is created successfully.