

NODE RED CREATION

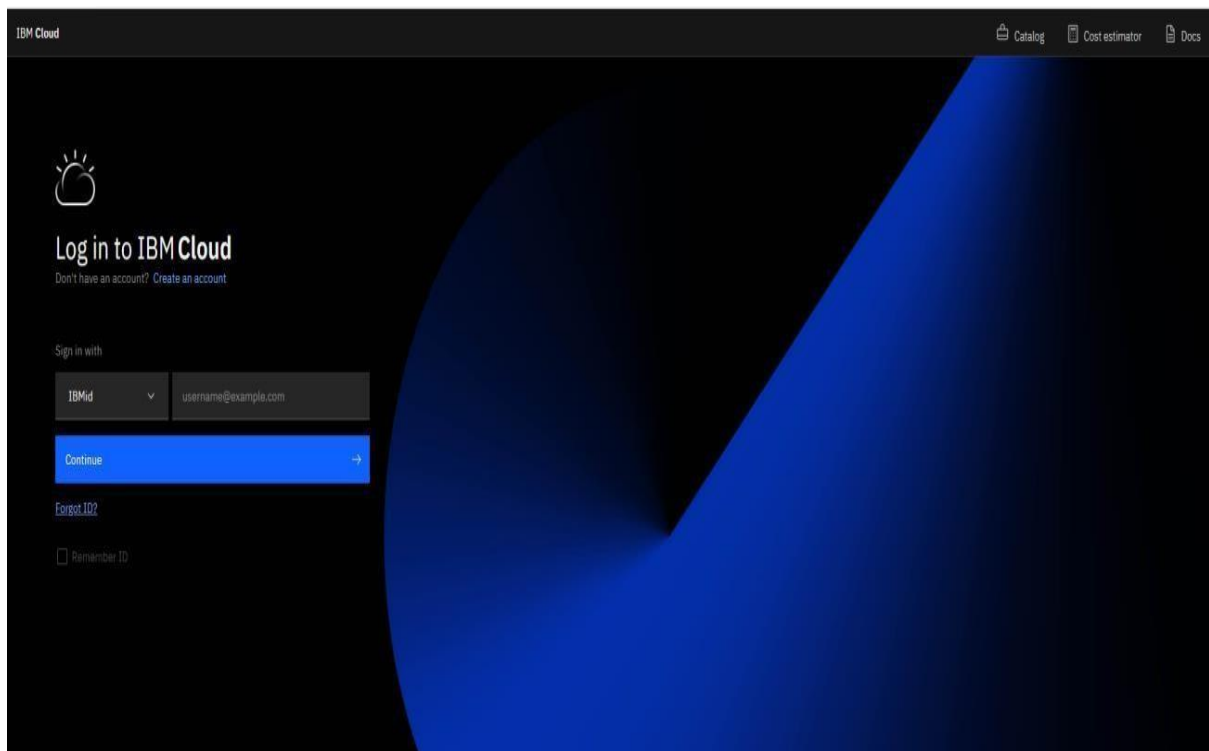
Date	07 NOVEMBER 2022
Team ID	PNT2022TMID42272
Project Name	SMART WASTE MANAGEMENT SYSTEM

AIM:

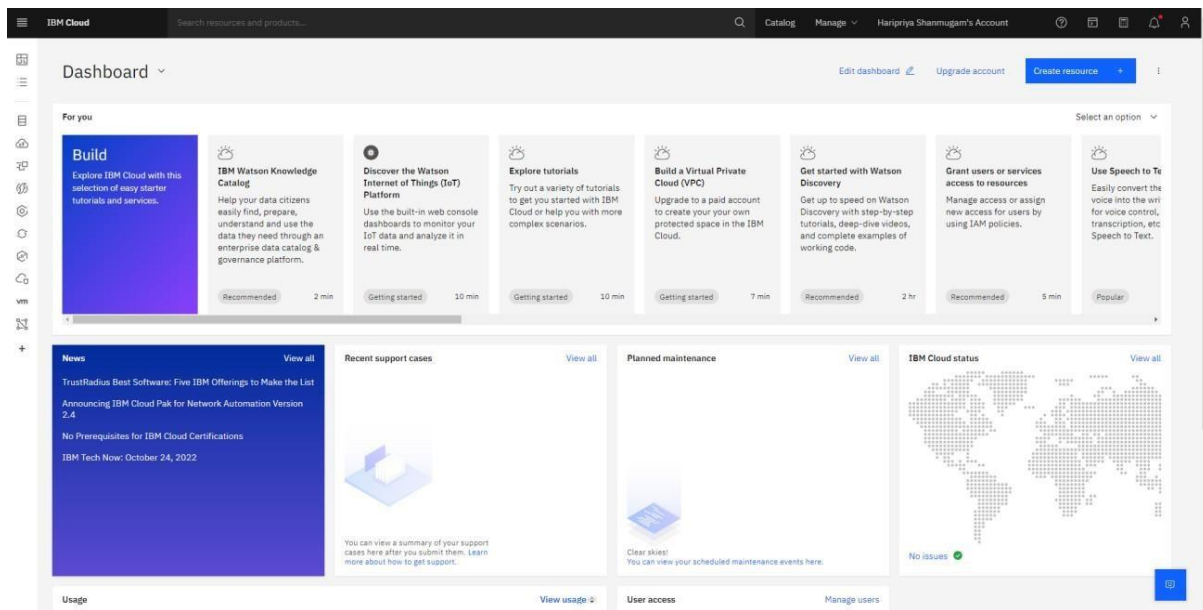
To create a Node-red service in our account and deploy the application.

STEPS:

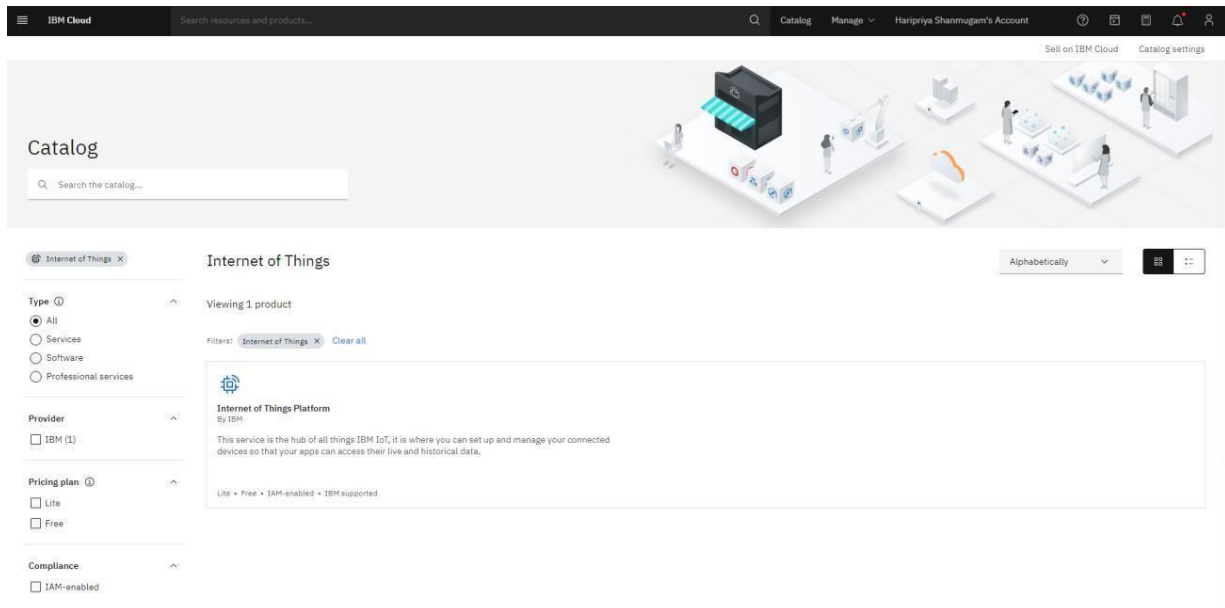
STEP 1: CREATE AND GO TO IBM CLOUD ACCOUNT



STEP 2: GO TO THE DASHBOARD AND VISIT THE CATALOG



STEP 3: REACH THE INTERNET OF THINGS FOLDER



STEP 4: GO TO THE NODE RED

The screenshot shows the IBM Cloud Developer console interface. The browser address bar displays the URL: `cloud.ibm.com/developer/appservice/create-app?starterKit=59c9d5bd-4d31-3611-897a-f94eea80dc9f&defaultLanguage=undefined`. The page title is "Node-RED". The "About" tab is selected, showing details about the starter kit. The "Create" tab is also visible. The "Overview" section describes the starter kit as a pre-configured Node-RED application with a Cloudant service for storing application flow configuration. It instructs users to add services, generate and download the code, use the IBM Cloud Developer Tools CLI to run and debug locally, and then deploy to Cloud Foundry or a DevOps Pipeline. A list of helpful links is provided: "Generate an application with Node-RED", "Generate an application with files for deploying to Cloud Foundry or a DevOps Pipeline", and "Connect to provisioned services". The bottom of the page shows a "Waiting for 684d0d4b.akstat.io..." status bar and a navigation bar with links to "CREATE IBM WATS...", "CREATE IBM WATS...", and "Milestones.pdf".

IBM Cloud

Search resources and products...

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Catalog / Create app /

Node-RED

About Create

Details

Author IBM
Updated 2/11/2020
Type Starter kit

Source code

GitHub [↗](#)

Helpful links

Terms [↗](#)

Tutorial [↗](#)

Overview

This starter kit provides a pre-configured Node-RED application, including a Cloudant service to store the application flow configuration. Add services, generate and download the code, use the IBM Cloud Developer Tools CLI to run and debug locally, then deploy to Cloud Foundry or a DevOps Pipeline.

This starter kit will help you

- Generate an application with Node-RED
- Generate an application with files for deploying to Cloud Foundry or a DevOps Pipeline
- Connect to provisioned services

Waiting for 684d0d4b.akstat.io...

CREATE IBM WATS...pdf CREATE IBM WATS...pdf Milestones.pdf Show all

STEP 5: CREATE AN APP

The screenshot shows the IBM Cloud Developer console interface, specifically the "Create" tab for the Node-RED app. The "App details" section is visible, showing the "App name" field with the value "Node RED PDWQU 2022-11-06". Below the name field, a note states: "Accept the default name, or enter a value between 2 and 128 characters." The "Resource group" is set to "Default". The "Tags" field is empty, with a note: "Examples: env:dev, version-1". The bottom of the page shows a "Waiting for 684d0d4b.akstat.io..." status bar and a navigation bar with links to "CREATE IBM WATS...", "CREATE IBM WATS...", and "Milestones.pdf".

IBM Cloud

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Node-RED

About Create

App details

App name

Node RED PDWQU 2022-11-06

Accept the default name, or enter a value between 2 and 128 characters.

Resource group

Default

Tags ⓘ

Examples: env:dev, version-1

Waiting for 684d0d4b.akstat.io...

CREATE IBM WATS...pdf CREATE IBM WATS...pdf Milestones.pdf Show all

STEP 6: DEPLOY THE INSTALLATION PROCESS WITH REQUIRED FILES

The screenshot shows the IBM Cloud Developer console for an application named "Node RED XLTJR 2022-11-06". The interface includes a top navigation bar with the IBM Cloud logo, a search bar, and a user profile. The main content area is divided into several sections:

- Details:** A table showing application metadata.

Field	Value
App URL	You must deploy your app first
Source	Download code
Resource group	Default
Deployment target	You must deploy your app first
Created	11/6/2022
- Services:** A section showing the "Cloudant" service with a "Provisioning service credentials" button.
- Deployment Automation:** A section titled "Configure Continuous Delivery" with a "Deploy your app" button.

The bottom of the screen shows a file explorer with documents like "CREATE IBM WATS...pdf" and "Milestones.pdf".

STEP 7: GO TO CLOUD FOUNDRY

The screenshot shows the "Deployment target" section of the IBM Cloud Developer console. It displays three main options for deploying the application:

- Kubernetes Service:** Deploy, scale, and manage your containerized application workloads to highly available clusters.
- Red Hat OpenShift:** Deploy your apps on highly available clusters that come installed with Red Hat OpenShift on IBM Cloud.
- Cloud Foundry:** Deploy and run your applications without managing servers or clusters. A Lite plan is available for quick and easy deployment.

The "Cloud Foundry" option is highlighted with a checkmark. To the right, there is a detailed section for "IBM Cloud Foundry" which includes a description, a "Before you begin" section with a link to "Create org.", and a "Steps" section with two numbered instructions:

- Select the number of instances, memory allocation, region, org, and space.
- Select the domain and provide a host name.

The bottom of the screen shows the same file explorer as in the previous screenshot.

STEP 8: DEPRECATE CLOUD FOUNDRY

The screenshot shows the IBM Cloud Foundry Public deprecation warning. The warning message states: "IBM Cloud Foundry Public is deprecated. Learn more". Below the warning, the "New" button is visible. The "Organization" and "Space" dropdowns are highlighted with red boxes and error messages: "The value is required."

IBM Cloud Foundry Public is deprecated. [Learn more](#)

IBM Cloud API key

Number of instances: 1

Memory allocation per instance: 64 MB to 2000 MB (256 MB selected)

Region: Dallas

Organization: Organization (The value is required.)

Space: Space (The value is required.)

Buttons: Cancel, Next

STEP 9: FILL THE DETAILS AND GO NEXT

The screenshot shows the IBM Cloud Foundry Public deprecation warning. The warning message states: "IBM Cloud Foundry Public is deprecated. Learn more". Below the warning, the "Next" button is visible. The "Organization" and "Space" dropdowns are filled with "Sakthikiran_IBM".

IBM Cloud Foundry Public is deprecated. [Learn more](#)

IBM Cloud API key

Number of instances: 1

Memory allocation per instance: 64 MB to 2000 MB (256 MB selected)

Region: London

Organization: Sakthikiran_IBM

Space: Sakthikiran_IBM

Host: node-red-xtljr-2022-11-06

Domain: eu-gb.mybluemix.net

Buttons: Cancel, Next

STEP 10: RUN THE PIPELINE

The screenshot shows the IBM Cloud Developer console for an application named "Node RED XLTJR 2022-11-06". The interface is divided into two main sections: "Details" and "Deployment Automation".

Details:

- App URL: You must deploy your app first
- Source: <https://eu-gb.git.cloud.ibm.com/sakthikiran879/NodeREDXLTJ...>
- Resource group: Default
- Deployment target: You must deploy your app first
- Created: 11/6/2022

Services:

- Cloudant: Open dashboard, Documentation, API reference, Credentials

Deployment Automation:

- Name: NodeREDXLTJR2022-11-06
- Location: London
- Tool integrations: (Icons for GitHub, Docker, etc.)

Delivery Pipelines:

- Name: ci-pipeline, Status: No stages detected
- Name: pr-pipeline, Status: No stages detected

The bottom of the screen shows a navigation bar with links to "CREATE IBM WATS...", "Milestones.pdf", and a "Show all" button.

STEP 11: CLICK ON THE LINK

The screenshot shows the IBM Cloud Developer console for the "ci-pipeline Dashboard". The interface includes a sidebar with navigation options and a main content area displaying a list of pipeline runs.

Navigation:

- PipelineRuns (selected)
- Definitions
- Worker
- Triggers
- Environment properties
- Other settings

ci-pipeline Dashboard:

- Status: All
- Trigger: All
- Run pipeline button

PipelineRuns Table:

Run	Status
#1 simple-hosted-pipeline-550e505a-d0c8-4473-b22d-4cd5cec066b3	Running

The table shows a single pipeline run with the ID "#1 simple-hosted-pipeline-550e505a-d0c8-4473-b22d-4cd5cec066b3" in a "Running" status. The run was triggered manually at 3:15 PM on Nov 6.

The bottom of the screen shows a navigation bar with links to "CREATE IBM WATS...", "Milestones.pdf", and a "Show all" button.

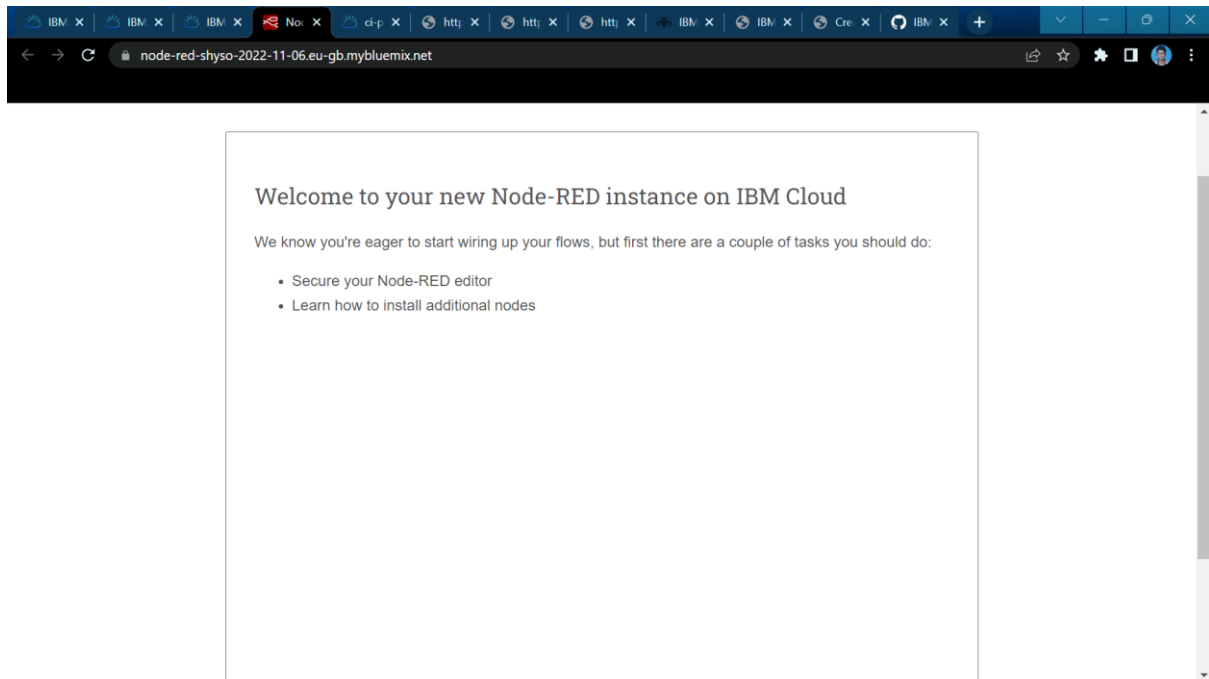
STEP 12: RUN THE EXTRACTION PROCESS

The screenshot shows the IBM Cloud DevOps console interface. The top navigation bar includes the IBM Cloud logo, a search bar, and user information. The left sidebar lists navigation options: Worker, Triggers, Environment properties, and Other settings. The main content area displays a pipeline run in progress. The status bar at the top indicates 'Running' with 'Tasks Completed: 1 (Failed: 0, Cancelled 0), Incomplete: 5, Skipped: 0' and a 'Duration: 42s'. Below this, a list of tasks is shown: 'extract-repository-url' (checked), 'extract-value-jq' (checked), 'clone-task' (dropdown), 'code-risk-analyzer' (dropdown), 'build' (dropdown), 'rolling-deploy-task' (dropdown), and 'publish-deployable...' (dropdown). The 'extract-value-jq' task is highlighted, showing its 'Logs' tab with the URL 'https://eu-gb.git.cloud.ibm.com/sakthikiran879/NodeREDXLTJR2022-11-06' and the message 'Step completed successfully'. A 'Show Context' link is visible. The bottom of the screen shows a list of recent documents: 'CREATE IBM WATS...pdf', 'CREATE IBM WATS...pdf', and 'Milestones.pdf', with a 'Show all' button.

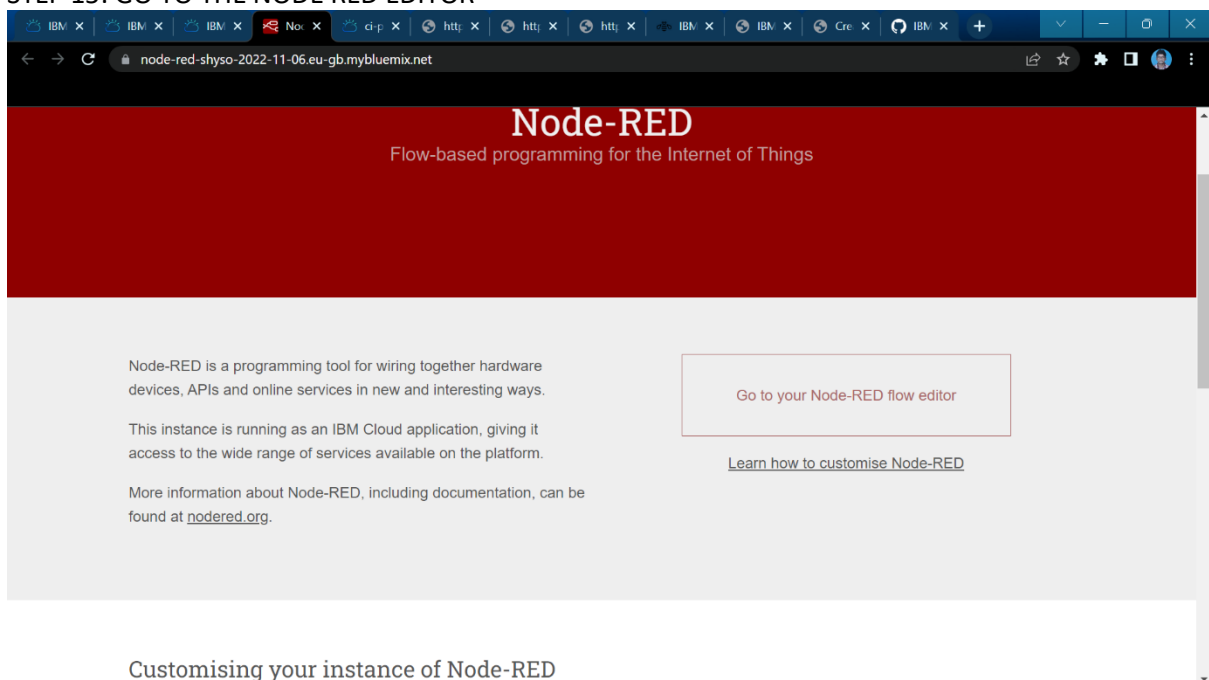
STEP 13: WAIT UNTIL ALL THE RESOURCES ARE INSTALLED

The screenshot shows the IBM Cloud DevOps console interface, similar to the previous one but with a different pipeline run. The status bar at the top indicates 'Succeeded' with 'Tasks Completed: 6 (Failed: 0, Cancelled 0), Skipped: 0' and a 'Duration: 10m 28s'. The list of tasks is now all completed, indicated by green checkmarks: 'extract-repository-url', 'extract-value-jq', 'clone-task', 'code-risk-analyzer', 'build', 'rolling-deploy-task', and 'publish-deployable...'. The 'extract-value-jq' task is highlighted, showing its 'Logs' tab with the same URL 'https://eu-gb.git.cloud.ibm.com/sakthikiran879/NodeREDSHYS02022-11-06' and the message 'Step completed successfully'. A 'Show Context' link is visible. The bottom of the screen shows the same list of recent documents: 'CREATE IBM WATS...pdf', 'CREATE IBM WATS...pdf', and 'Milestones.pdf', with a 'Show all' button.

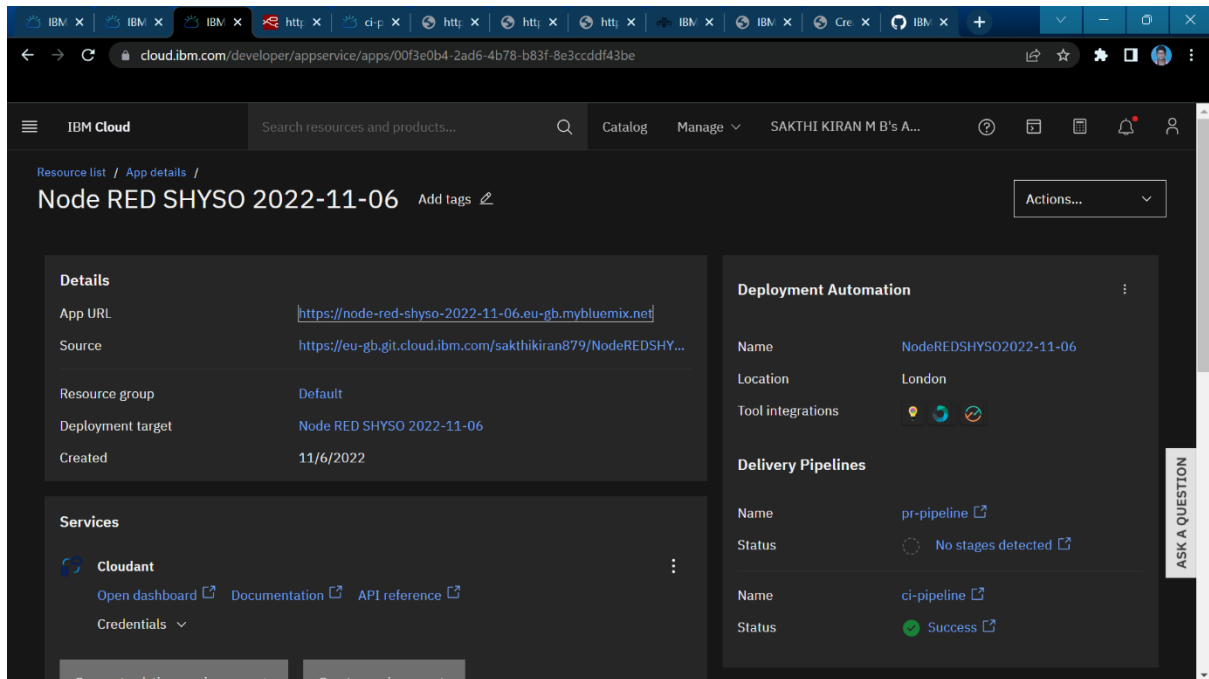
STEP 14: THE NODE RED IS CREATED



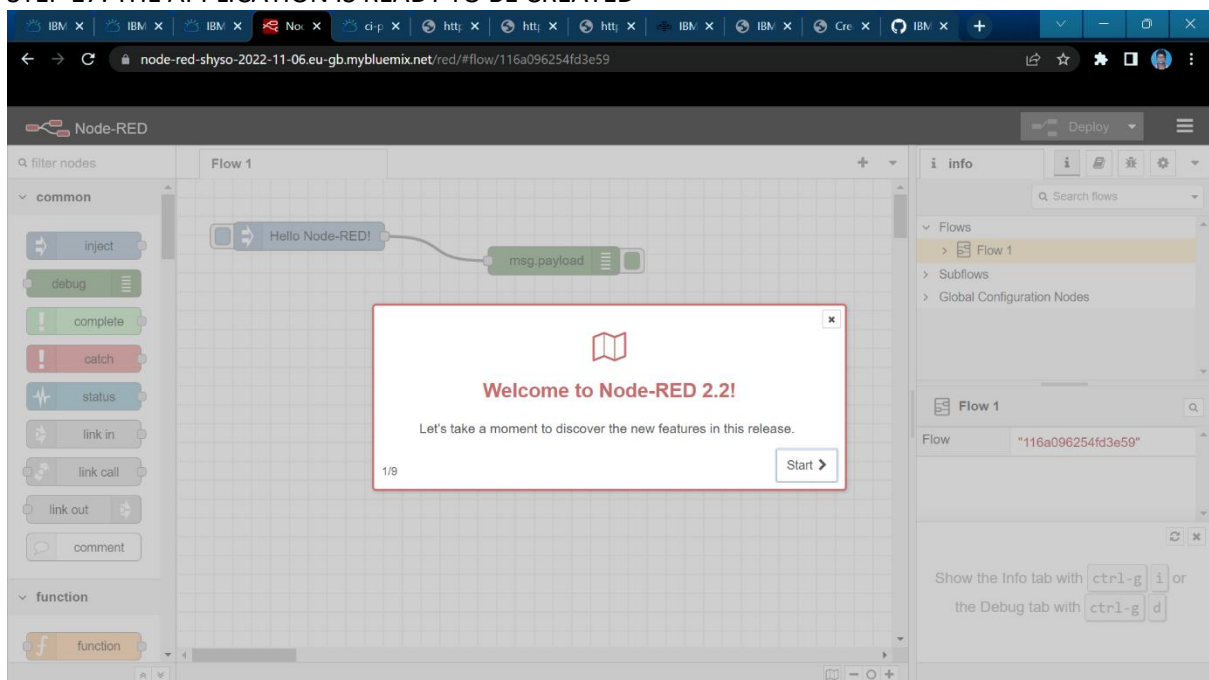
STEP 15: GO TO THE NODE RED EDITOR



STEP 16: CLICK ON THE URL LINK



STEP 17: THE APPLICATION IS READY TO BE CREATED



RESULT:

The Node Red is Service is thus created successfully.