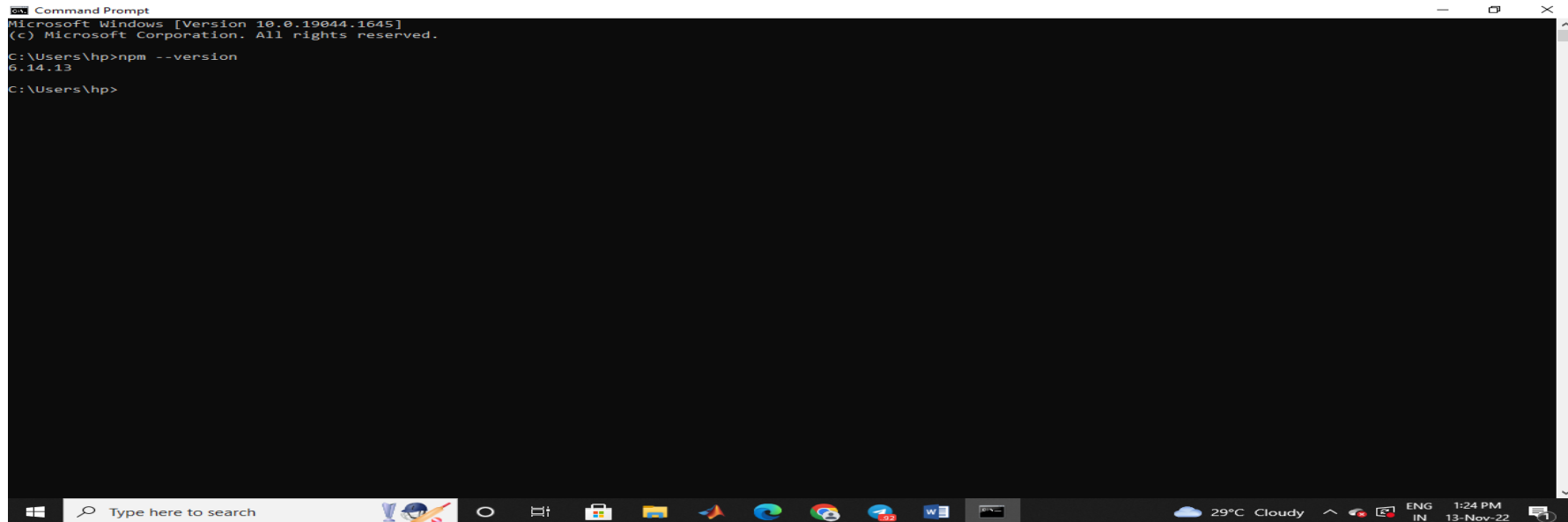


Create and Configure IBM Cloud Services

Team ID	PNT2022TMID14459
Project Name	SmartFarmer – IoT Enabled Smart Farming Application

Create Node-RED Service

1. Node js is downloaded and installed



```
Command Prompt
Microsoft Windows [Version 10.0.19044.1645]
(c) Microsoft Corporation. All rights reserved.

C:\Users\hp>npm --version
6.14.13

C:\Users\hp>
```

2. Installation and running of Node-RED

```
node-red
> bcrypt@5.0.1 install C:\Users\hp\AppData\Roaming\npm\node_modules\node-red\node_modules\bcrypt
> node-pre-gyp install --fallback-to-build

[bcrypt] Success: "C:\Users\hp\AppData\Roaming\npm\node_modules\node-red\node_modules\bcrypt\lib\binding\napi-v3\bcrypt_lib.node" is installed via remote
+ node-red@3.0.2
added 285 packages from 372 contributors in 169.661s

C:\Users\hp>node-red
13 Nov 13:50:56 - [info]

Welcome to Node-RED
=====

13 Nov 13:50:56 - [info] Node-RED version: v3.0.2
13 Nov 13:50:56 - [info] Node.js version: v14.17.3
13 Nov 13:50:56 - [info] Windows_NT 10.0.19044 x64 LE
13 Nov 13:50:57 - [info] Loading palette nodes
13 Nov 13:51:00 - [info] Settings file : C:\Users\hp\node-red\settings.js
13 Nov 13:51:00 - [info] Context store : 'default' [module=memory]
13 Nov 13:51:00 - [info] User directory : C:\Users\hp\node-red
13 Nov 13:51:00 - [warn] Projects disabled : editorTheme.projects.enabled=false
13 Nov 13:51:00 - [info] Flows file : C:\Users\hp\node-red\flows.json
13 Nov 13:51:00 - [info] Creating new flow file
13 Nov 13:51:00 - [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.
-----

13 Nov 13:51:00 - [info] Server now running at http://127.0.0.1:1880/
13 Nov 13:51:00 - [warn] Encrypted credentials not found
13 Nov 13:51:00 - [info] Starting flows
13 Nov 13:51:00 - [info] Started flows
```

3. Open the IP address link from command prompt in a new tab

The screenshot shows a web browser window with multiple tabs. The active tab is titled 'Node-RED' and displays the URL '127.0.0.1:1880/#flow/290f65ef517c7964'. The Node-RED interface is visible, featuring a central workspace with a grid. A dialog box titled 'Welcome to Node-RED 3.0!' is centered on the workspace, with the text 'Let's take a moment to discover the new features in this release.' and a 'Start >' button. The left sidebar shows a search bar and a list of nodes under 'common' and 'function' categories. The right sidebar shows 'Flow 1' information and a search bar. The Windows taskbar is visible at the bottom, showing the search bar and various application icons.

4. Node-RED service is created

The screenshot shows the Node-RED web interface in a browser window. The browser's address bar displays the URL `127.0.0.1:1880/#flow/290f65ef517c7964`. The Node-RED interface includes a left sidebar with a 'filter nodes' search bar and two categories of nodes: 'common' (inject, debug, complete, catch, status, link in, link call, link out, comment) and 'function' (function, switch). The central workspace is a grid labeled 'Flow 1'. On the right, an 'info' panel shows a tree view with 'Flows' containing 'Flow 1' (empty), 'Subflows', and 'Global Configuration Nodes' (empty). Below this, a table lists the flow details:

Flow 1	
Flow	"290f65ef517c7964"

At the bottom of the info panel, there is a message: 'Import a flow by dragging its JSON into the editor, or with `ctrl-i`'. The Windows taskbar at the bottom shows the search bar, task view, and various application icons, with the system clock indicating 1:53 PM on 13-Nov-22.