

**D O M
I N O
V 1 0**



Setting up the right Environment for using the new

Domino v10 NodeRED nodes



WARNING !

This process is ONLY required until the HCL AppDev pack will be made publicly available as an NPM installable package

Local Machine settings

Domino v10 NodeRED nodes



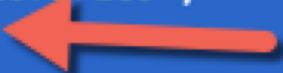
Assumptions

- You have access to the HCL App Dev Pack
- You have node v10 installed on your local machine.
There are problems using V11 !!
In case you run node v11, please downgrade to V10

Check the local NodeJS node path

- We want to install the AppDev pack globally, so that it will be available to all the NodeJS applications running on the local machine
- From your \$HOME directory, enter the command **node**
- Once in the nod application, enter the command **module.paths**
- You may see an output like the following:

```
stefanomac:~ stefano$ node
> module.paths
[ '/Users/stefano/repl/node_modules',
  '/Users/stefano/node_modules',
  '/Users/node_modules',
  '/node_modules',
  '/Users/stefano/.node_modules',
  '/Users/stefano/.node_modules',
  '/usr/local/lib/node' ]
```



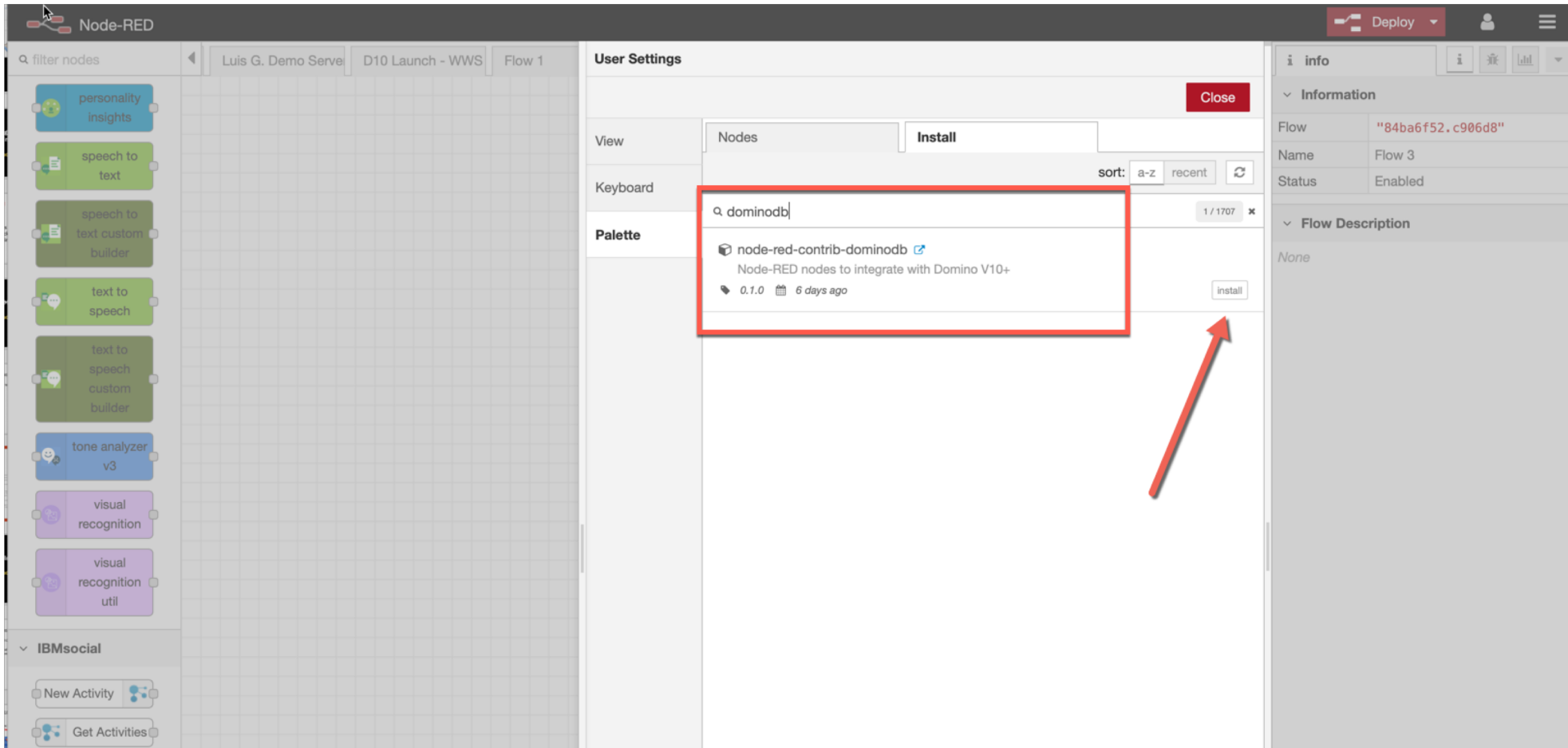
Check the local NodeJS node path – cont'd

- The problem is that the “/Users/node_modules” , “/node_modules” and “/usr/local/lib/node” directories **do not exist** !!
- On my system a /usr/local/lib/**node_modules** directory exist which contains the global nodejs modules available for my local machine
- Exit from the **node** application
- On Mac/Unix, issue the command
export NODE_PATH=/usr/local/lib/node_modules .
 - You may also want to set this new environment variable in your shell initialization file !!!!

Unzip the AppDev Pack from HCL

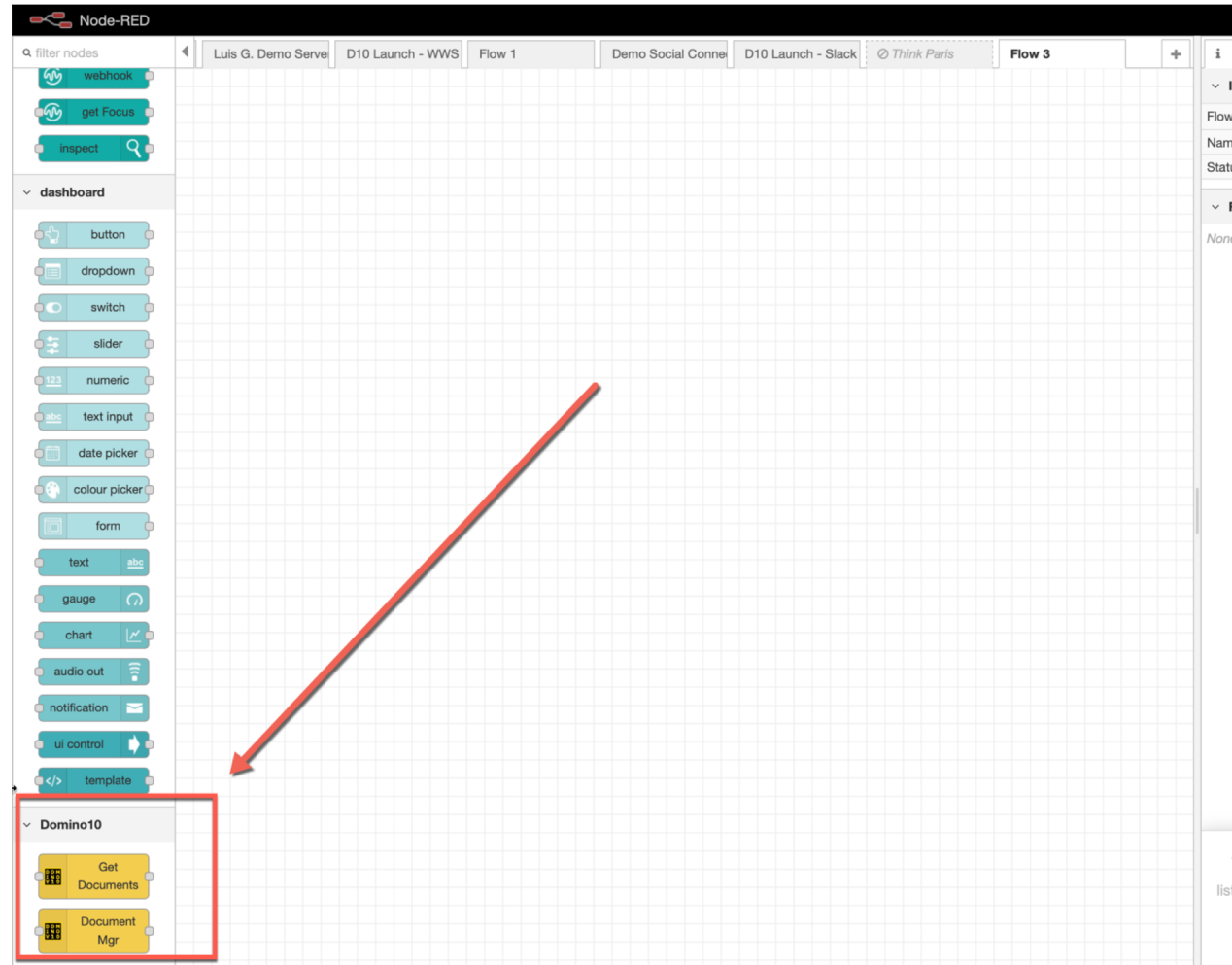
- Unzip the AppDev Pack in a directory of your choice
- Go to the directory which contains the **package** subdirectory
- Issue the command
npm install -g package
- If everything is ok, you will see a new directory being created at a `/usr/local/lib/node_modules/@domino` directory
 - A `/usr/local/lib/node_modules/@domino/domino-db` subdirectory is also created which is a symbolic link to where the **package** subdirectory is located
 - You may want to avoid the symbolic link and have the content of the **package** directory physically deployed inside the new `/usr/local/lib/node_modules/@domino/domino-db` directory
- Now, the HCL AppDev Pack is installed on your local machine

Open your local NodeRED Editor



Install **node-red-contrib-dominodb** using the standard “Manage Palette” functionality in NodeRed

The NodeRED package is installed and ready to be used





IBM Cloud settings

Domino v10 NodeRED nodes



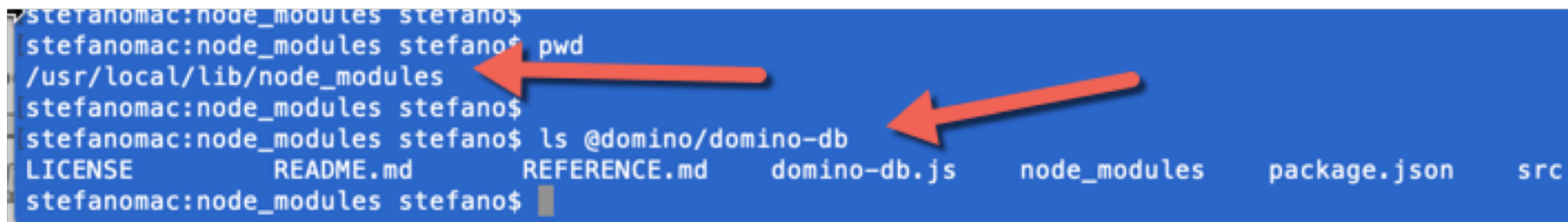
Assumptions

- You have an IBM Cloud NodeRed instance already setup
- You have installed the HCL App Dev Pack on your local system
 - The AppDev Pack is available as **@domino/domino-db** on your local system

Go to your LOCAL installation of the AppDev Pack

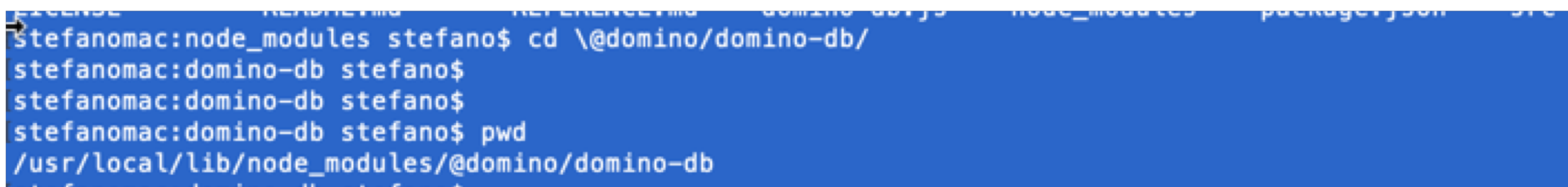
- Suppose that you installed the HCL AppDev Pack in the **@domino/domino-db** under the **/usr/local/lib/node_modules** directory

```
stefanomac:node_modules stefano$  
stefanomac:node_modules stefano$ pwd  
/usr/local/lib/node_modules  
stefanomac:node_modules stefano$  
stefanomac:node_modules stefano$ ls @domino/domino-db  
LICENSE      README.md    REFERENCE.md  domino-db.js  node_modules  package.json  src  
stefanomac:node_modules stefano$
```

A terminal window with a blue background. The first arrow points from the text '@domino/domino-db' in the list above to the 'ls @domino/domino-db' command in the terminal. The second arrow points from the text '/usr/local/lib/node_modules' in the list above to the 'pwd' command output in the terminal.

- Move to the domino-db directory : **cd @domino/domino-db**

```
stefanomac:node_modules stefano$ cd \@domino/domino-db/  
stefanomac:domino-db stefano$  
stefanomac:domino-db stefano$  
stefanomac:domino-db stefano$ pwd  
/usr/local/lib/node_modules/@domino/domino-db  
stefanomac:domino-db stefano$
```

A terminal window with a blue background showing the execution of the 'cd' command to move into the '@domino/domino-db' directory and the subsequent 'pwd' command output.

"Pack" the AppDev Pack


- From that directory issue the command : **npm pack**

```
stefanomac:domino-db stefano$ npm pack
npm notice 📦 @domino/domino-db@1.0.0
npm notice === Tarball Contents ===
npm notice 1.4kB package.json
npm notice 220B domino-db.js
npm notice 0 LICENSE
npm notice 11.1kB README.md
npm notice 36.2kB REFERENCE.md
npm notice 954B src/constants.js
npm notice 5.8kB src/database.js
npm notice 3.1kB src/document.js
npm notice 317B src/domino-db-error.js
npm notice 7.9kB src/requests/grpc/database.js
npm notice 4.0kB src/requests/grpc/document.js
npm notice 2.0kB src/requests/grpc/generated/domino_grpc_pb.js
npm notice 93.4kB src/requests/grpc/generated/domino_pb.js
npm notice 112.8kB src/requests/grpc/generated/errorcodes.js
npm notice 70B src/requests/grpc/generated/version.js
npm notice 2.0kB src/requests/grpc/index.js
npm notice 4.0kB src/requests/grpc/utls/bulk-document.js
npm notice 6.7kB src/requests/grpc/utls/convert-from-proto.js
npm notice 6.4kB src/requests/grpc/utls/convert-to-proto.js
npm notice 3.3kB src/requests/grpc/utls/grpc-helpers.js
npm notice 114B src/requests/http/database.js
npm notice 114B src/requests/http/document.js
npm notice 684B src/requests/http/index.js
npm notice 112B src/requests/http/server.js
npm notice 3.9kB src/requests/http/utls/das-query-params.js
npm notice 4.2kB src/requests/http/utls/http-helpers.js
npm notice 1.9kB src/requests/index.js
npm notice 4.2kB src/server.js
npm notice 1.9kB src/strings/errors.js
npm notice 117B src/strings/index.js
npm notice 90B src/utls/getter-factory.js
npm notice 121B src/utls/is-dev-mode.js
npm notice === Tarball Details ===
npm notice name: @domino/domino-db
npm notice filename: domino-domino-db-1.0.0.tgz
npm notice unpacked size: 319.2 kB
npm notice shasum:
npm notice integrity:
npm notice total files: 32
domino-domino-db-1.0.0.tgz
```

”Pack” the AppDev Pack – cont’d

- A File is generated in the same directory named **domino-domino-db-1.0.0.tgz**

```
stefanomac:domino-db stefano$ ls -lt
total 240
-rw-r--r--  1 stefano  staff  63439 Nov  6 18:47 domino-domino-db-1.0.0.tgz
drwxr-xr-x  50 stefano  wheel   1600 Oct 18 18:15 node_modules
drwxr-xr-x@ 10 stefano  wheel    320 Oct 18 16:19 src
-rw-r--r--@  1 stefano  wheel     0 Oct 26  1985 LICENSE
-rw-r--r--@  1 stefano  wheel  11102 Oct 26  1985 README.md
-rw-r--r--@  1 stefano  wheel  36189 Oct 26  1985 REFERENCE.md
-rw-r--r--@  1 stefano  wheel   220 Oct 26  1985 domino-db.js
-rw-r--r--@  1 stefano  wheel   1401 Oct 26  1985 package.json
stefanomac:domino-db stefano$
```



- Move this file to a temporary directory. We will use it in a moment

Go to IBM Cloud and open your Toolchain

IBM Cloud Catalog Docs Support Manage Search for resource...

Getting started
Overview
Runtime
Connections
Logs
API Management
Monitoring

Org: STEFANO.POGLIANI@FR.IBM.COM Location: US South Space: coccobill

Running Visit App URL

BUILDPACK
Node-RED Starter

INSTANCES
All instances are running
Health is 100%

GB MEMORY PER INSTANCE

TOTAL GB ALLOCATION
3 GB still available

Connections (2)

Create connection

Runtime cost

€0.00 Current charges for billing period

€10.57 Estimated total for billing period (Nov 1, 2018 - Nov 30, 2018)

Current and estimated cost excludes [connected services](#).

View full usage details

Activity feed

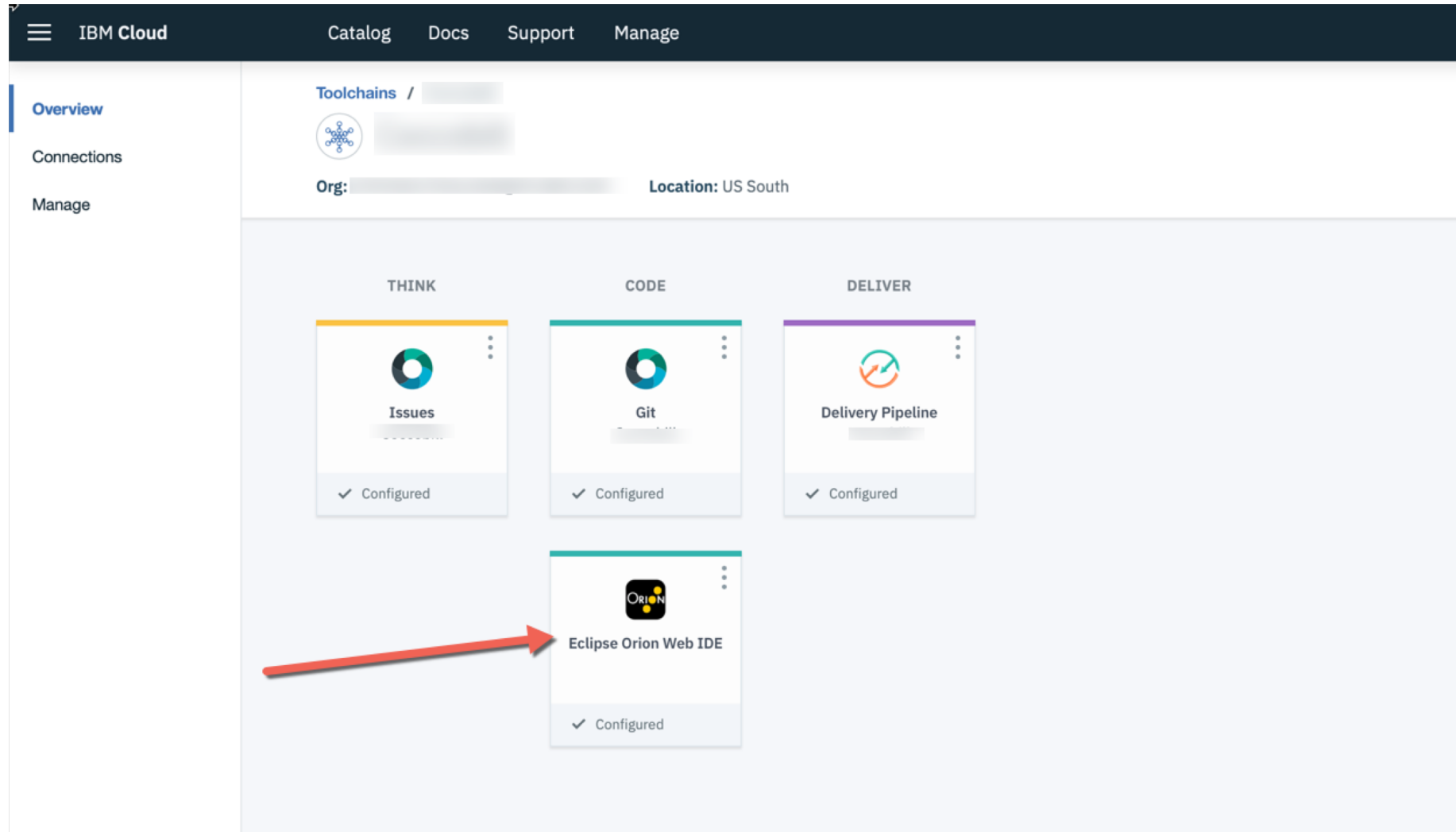
No activity available

Continuous delivery

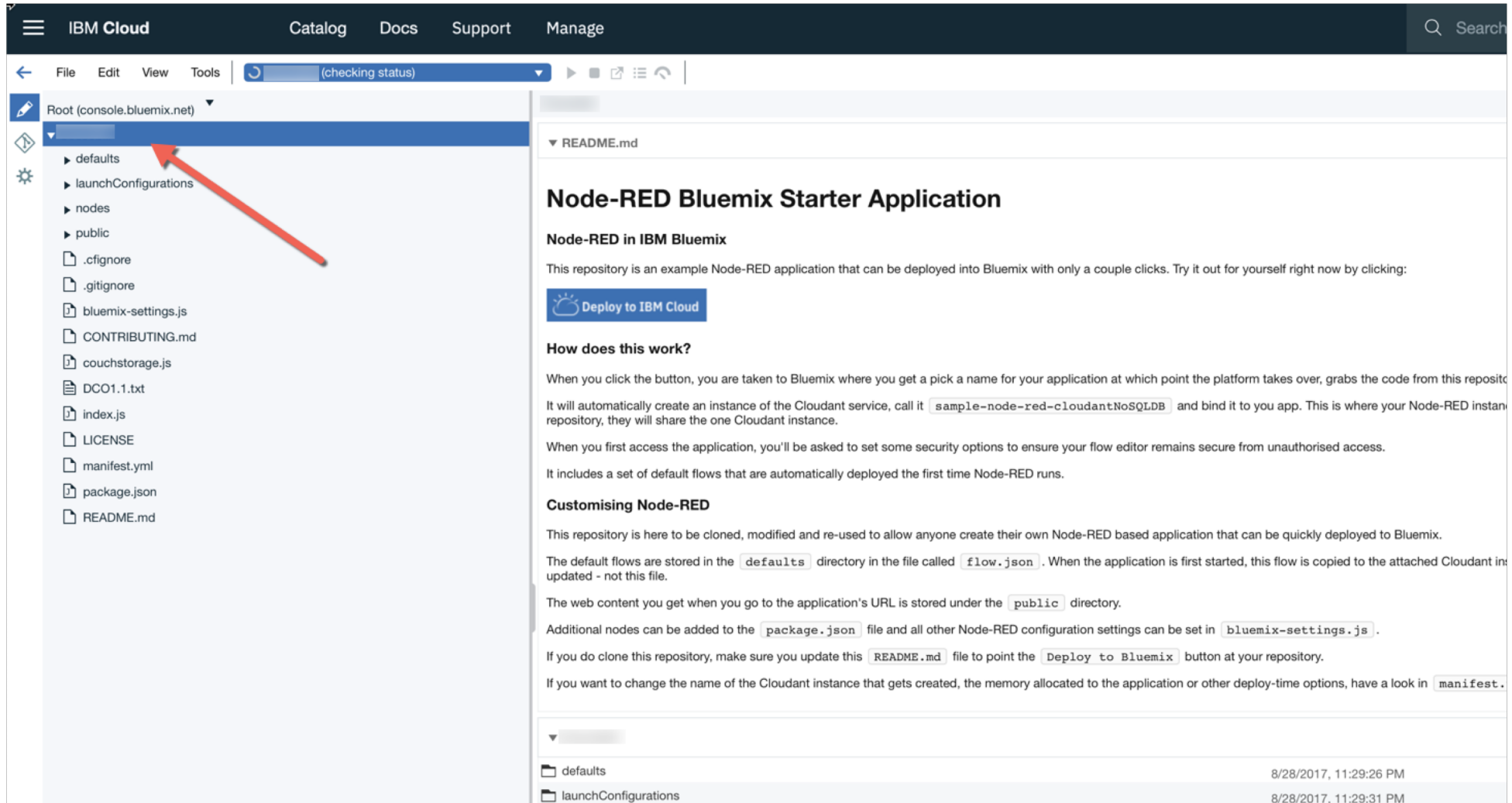
You enabled continuous delivery and have a toolchain. With your toolchain, you can automate builds, tests, deployments, and more. [View Docs](#).

View toolchain

Click on the “Eclipse Orion Web IDE” icon



Expand the Directory Structure



The screenshot displays the IBM Cloud console interface. The top navigation bar includes 'IBM Cloud', 'Catalog', 'Docs', 'Support', and 'Manage'. A search bar is located on the right. Below the navigation bar, a toolbar shows 'File', 'Edit', 'View', and 'Tools' options. The main content area is divided into two panels. The left panel, titled 'Root (console.bluemix.net)', shows a directory tree with folders like 'defaults', 'launchConfigurations', 'nodes', and 'public', and files like '.cignore', '.gitignore', 'bluemix-settings.js', 'CONTRIBUTING.md', 'couchstorage.js', 'DCO1.1.txt', 'index.js', 'LICENSE', 'manifest.yml', 'package.json', and 'README.md'. A red arrow points to the 'defaults' folder. The right panel displays the 'README.md' file content, which includes the title 'Node-RED Bluemix Starter Application', a 'Deploy to IBM Cloud' button, and sections for 'Node-RED in IBM Bluemix', 'How does this work?', 'Customising Node-RED', and a table of recent changes.

Node-RED Bluemix Starter Application

Node-RED in IBM Bluemix

This repository is an example Node-RED application that can be deployed into Bluemix with only a couple clicks. Try it out for yourself right now by clicking:

[Deploy to IBM Cloud](#)

How does this work?

When you click the button, you are taken to Bluemix where you get a pick a name for your application at which point the platform takes over, grabs the code from this repository, they will share the one Cloudant instance.

When you first access the application, you'll be asked to set some security options to ensure your flow editor remains secure from unauthorised access.

It includes a set of default flows that are automatically deployed the first time Node-RED runs.

Customising Node-RED

This repository is here to be cloned, modified and re-used to allow anyone create their own Node-RED based application that can be quickly deployed to Bluemix.

The default flows are stored in the `defaults` directory in the file called `flow.json`. When the application is first started, this flow is copied to the attached Cloudant instance - not this file.

The web content you get when you go to the application's URL is stored under the `public` directory.

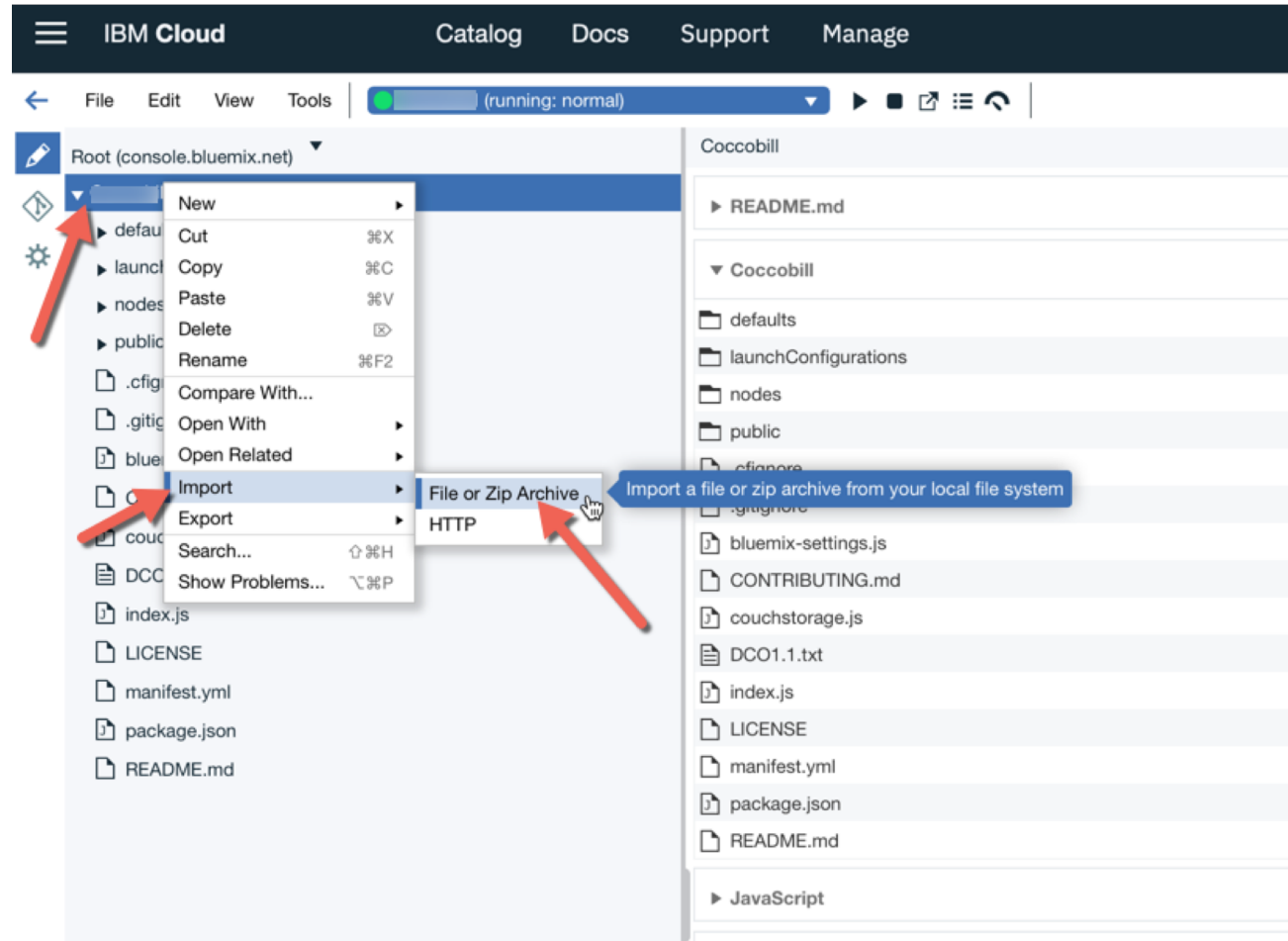
Additional nodes can be added to the `package.json` file and all other Node-RED configuration settings can be set in `bluemix-settings.js`.

If you do clone this repository, make sure you update this `README.md` file to point the `Deploy to Bluemix` button at your repository.

If you want to change the name of the Cloudant instance that gets created, the memory allocated to the application or other deploy-time options, have a look in `manifest.yml`.

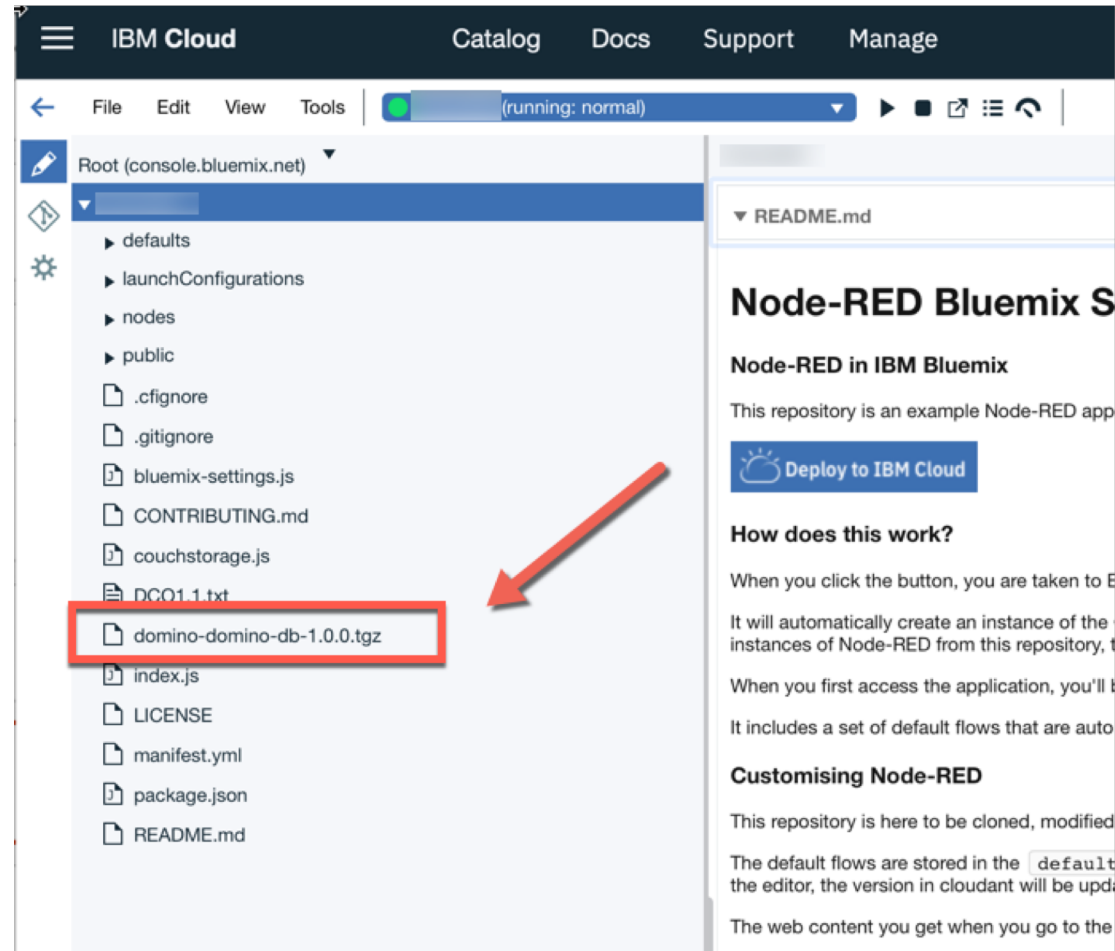
File	Modified
defaults	8/28/2017, 11:29:26 PM
launchConfigurations	8/28/2017, 11:29:31 PM

Import the tarball

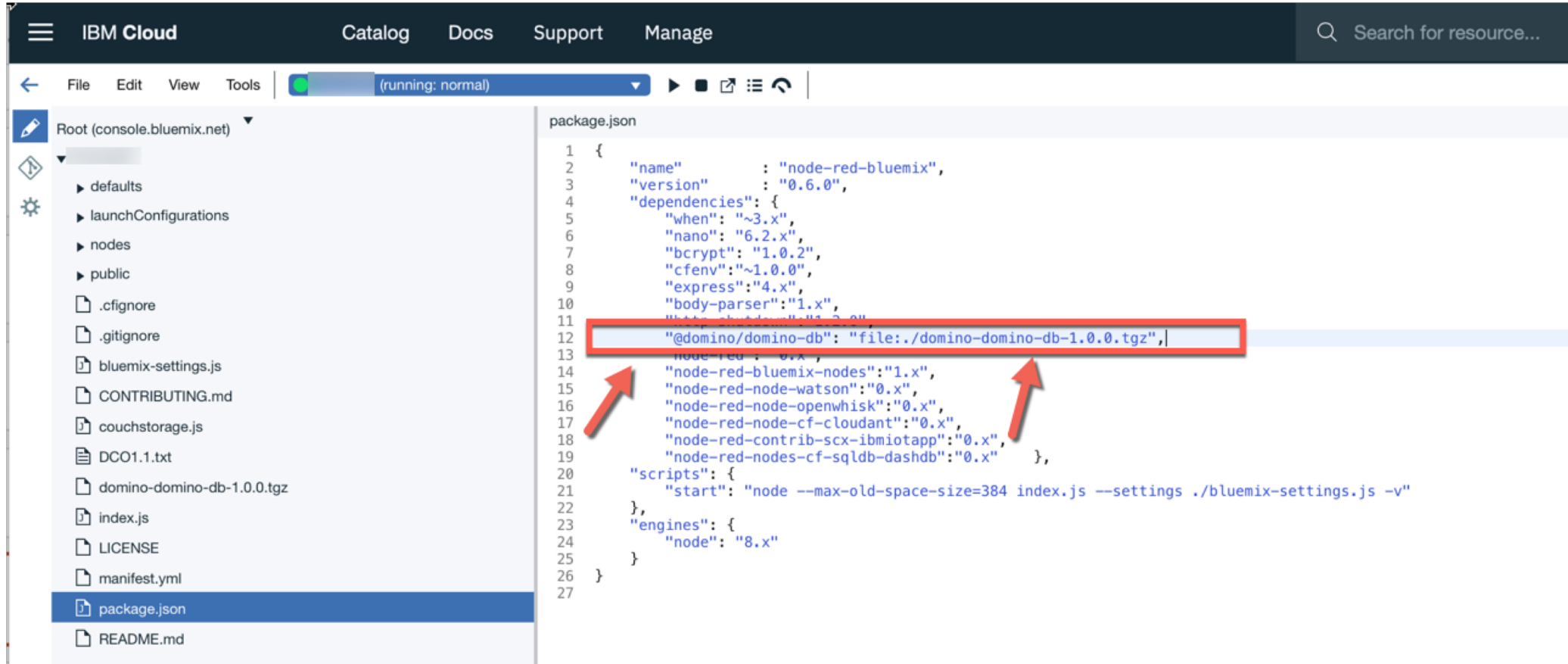


Import the file in the root directory !!!!

Import the tarball – cont'd



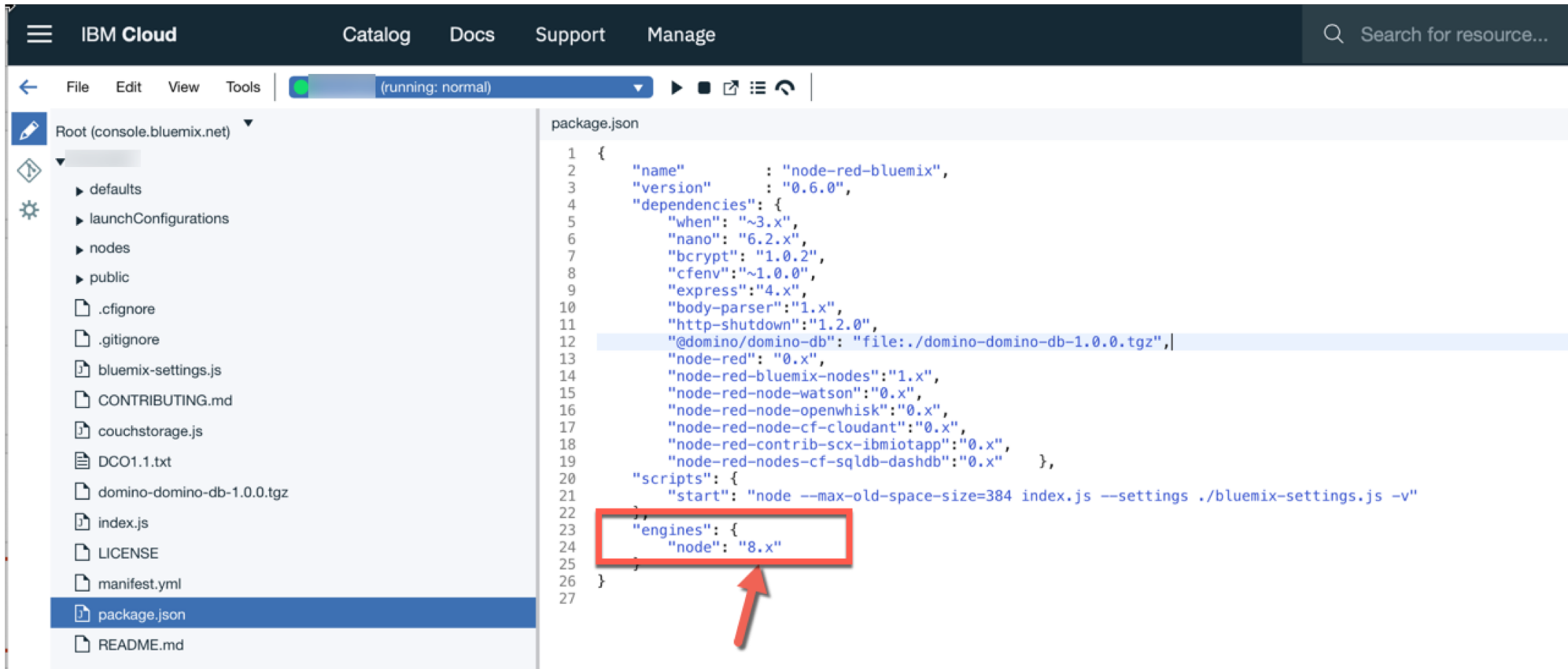
Modify the package.json file



Add the following line :

```
"@domino/domino-db": "file:./domino-domino-db-1.0.0.tgz",
```

Modify the package.json file – cont'd



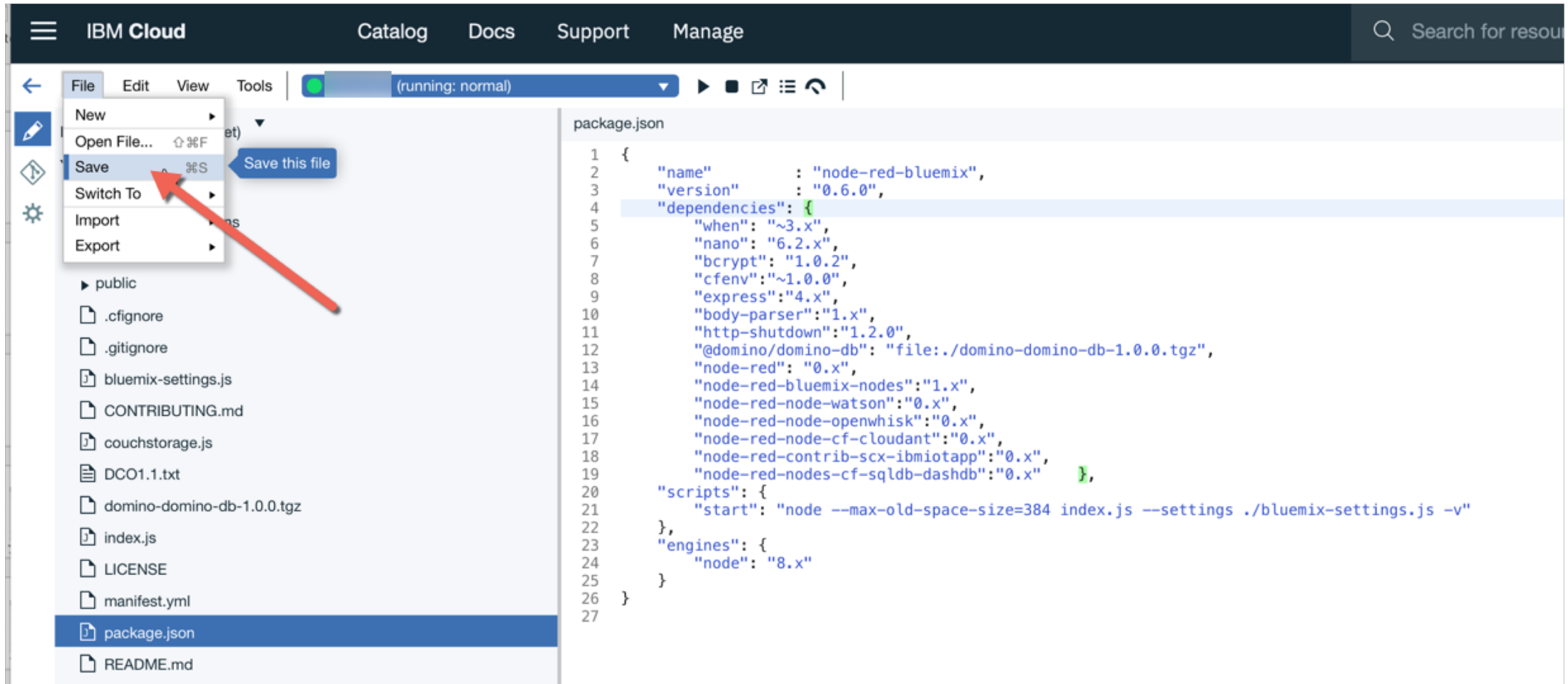
The screenshot shows the IBM Cloud console interface. The top navigation bar includes 'IBM Cloud', 'Catalog', 'Docs', 'Support', and 'Manage'. A search bar is on the right. The left sidebar shows a file explorer for 'Root (console.bluemix.net)' with various files and folders. The main editor area displays the 'package.json' file. The file content is as follows:

```
1 {
2   "name"      : "node-red-bluemix",
3   "version"   : "0.6.0",
4   "dependencies": {
5     "when": "~3.x",
6     "nano": "6.2.x",
7     "bcrypt": "1.0.2",
8     "cfenv": "~1.0.0",
9     "express": "4.x",
10    "body-parser": "1.x",
11    "http-shutdown": "1.2.0",
12    "@domino/domino-db": "file:./domino-domino-db-1.0.0.tgz",
13    "node-red": "0.x",
14    "node-red-bluemix-nodes": "1.x",
15    "node-red-node-watson": "0.x",
16    "node-red-node-openwhisk": "0.x",
17    "node-red-node-cf-cloudant": "0.x",
18    "node-red-contrib-scx-ibmiotapp": "0.x",
19    "node-red-nodes-cf-sqlldb-dashdb": "0.x"
20  },
21  "scripts": {
22    "start": "node --max-old-space-size=384 index.js --settings ./bluemix-settings.js -v"
23  },
24  "engines": {
25    "node": "8.x"
26  }
27 }
```

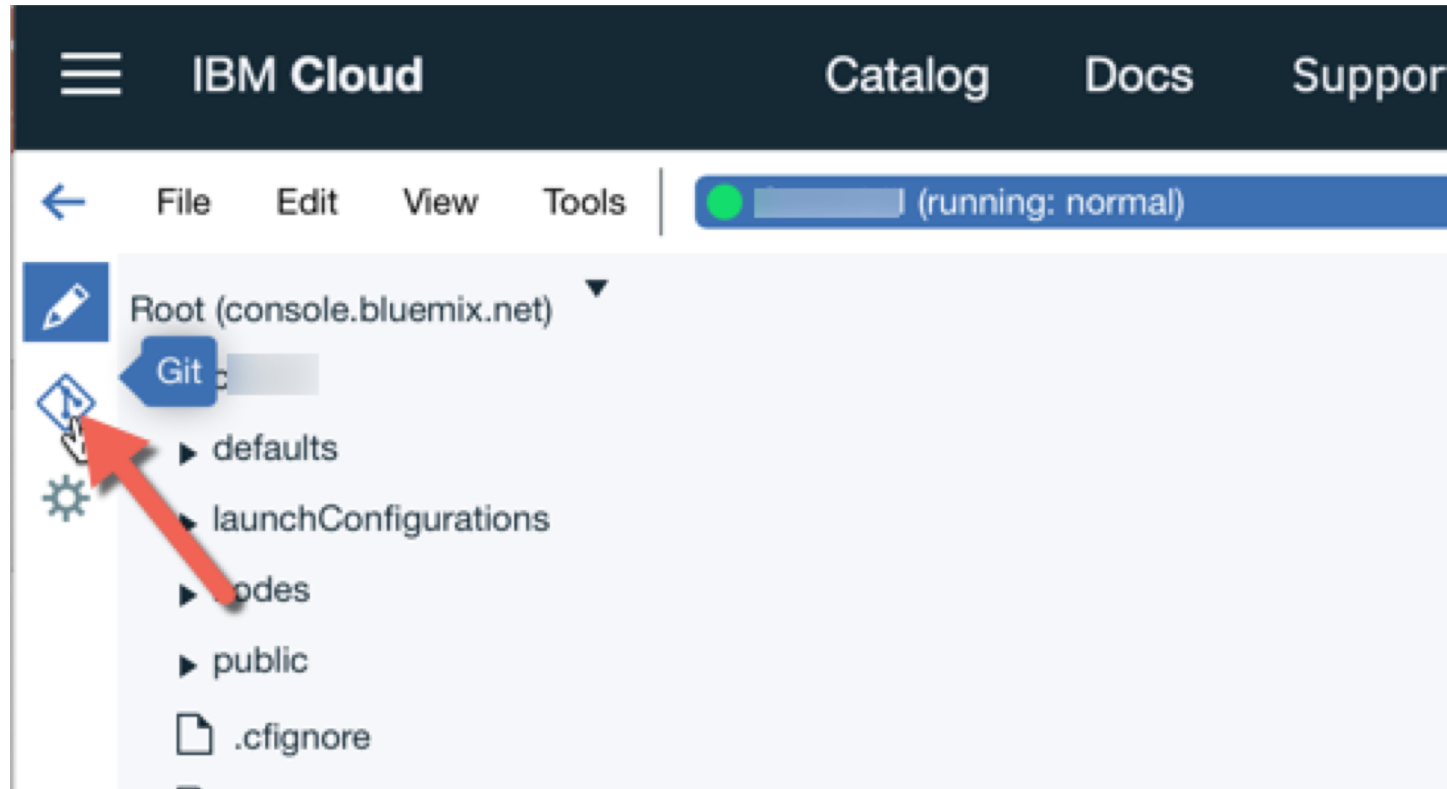
A red box highlights the 'engines' section, and a red arrow points to the 'node' version '8.x'.

Do NOT forget to **modify the NodeJS version** (to Version 8)

Save the package.json file



Now go to the GIT tab of your Toolchain



Add a Comment and click COMMIT

The screenshot displays the IBM Cloud interface for managing a repository. The top navigation bar includes 'IBM Cloud', 'Catalog', 'Docs', 'Support', and 'Manage'. A search bar and the user profile 'STEFANO POGLIANI's ...' are on the right. The main area is divided into two panels. The left panel, titled 'Active Branch (master)', shows a folder 'Working Directory Changes' with '2 files changed, 2 files ready to commit.' Below this, there are sections for 'Outgoing (0)' and 'Incoming (0)', both showing 'No Changes'. A 'Push' button is visible next to the 'Outgoing' section, and a 'Fetch' button is next to the 'Incoming' section. A red arrow labeled '1' points to the 'Push' button. The right panel, titled 'Working Directory Changes', contains a 'Commit message:' field with the text 'Domino AppDev Pack'. Below the message field is a checkbox labeled 'Amend previous commit'. At the bottom of the right panel, there is a 'Commit' button. A red arrow labeled '2' points to the 'Commit' button. The bottom status bar shows 'Select All' and '2 files selected'.

Push All the Changes to IBM Cloud

The screenshot displays the IBM Cloud web interface. At the top, a dark blue navigation bar contains the IBM Cloud logo and links for Catalog, Docs, Support, and Manage. Below this, a header section shows the 'Repository' dropdown and the 'Reference' set to 'master => origin/master'. The main content area is divided into two panels. The left panel, titled 'Active Branch (master)', shows 'Working Directory Changes' with '1 file changed. 0 files ready to commit.' Below this, the 'Outgoing (1)' section lists a commit by 'Domino V10' from 11/6/2018. The 'Incoming (7)' section shows a commit by 'STEFANO POGLIANI' from 6/18/2018, with a tag 'deploy-ibm-yp-us-south-STEFANO.POGLIANI-FR.IBM.COM-coccobill-'. A 'Push' button is visible in the 'Outgoing' section. A red arrow points to this button, and another red arrow points to the 'Push All' option in the dropdown menu that appears. A blue callout box with a white arrow points to the 'Push All' option, containing the text: 'Push commits and tags from your local branch into the remote branch'. The right panel, titled 'Working Directory Changes', shows a 'Commit message:' field with the placeholder 'Enter the commit message' and a 'Commit' button.

IBM Cloud

Catalog Docs Support Manage

Repository: Reference: master => origin/master

Active Branch (master)

Working Directory Changes

1 file changed. 0 files ready to commit.

Outgoing (1)

Domino V10 on 11/6/2018, 3:03:55 PM

more ...

Incoming (7)

Update bluemix-settings.js
STEFANO POGLIANI on 6/18/2018, 11:04:40 PM
tags:
deploy-ibm-yp-us-south-STEFANO.POGLIANI-FR.IBM.COM-coccobill-

Push

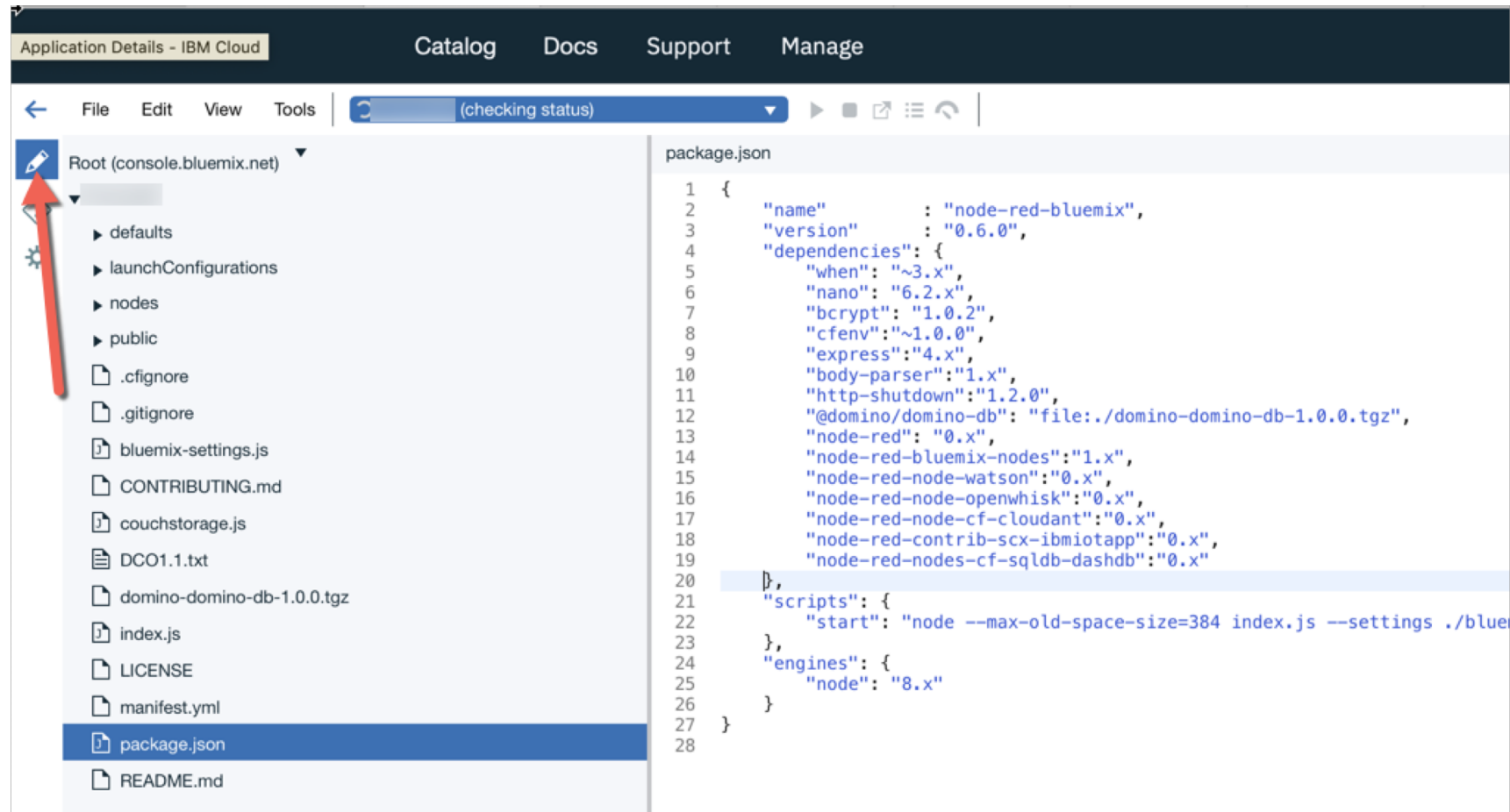
Push All
Force Push All
Push Branch
Force Push Branch

Push commits and tags from your local branch into the remote branch

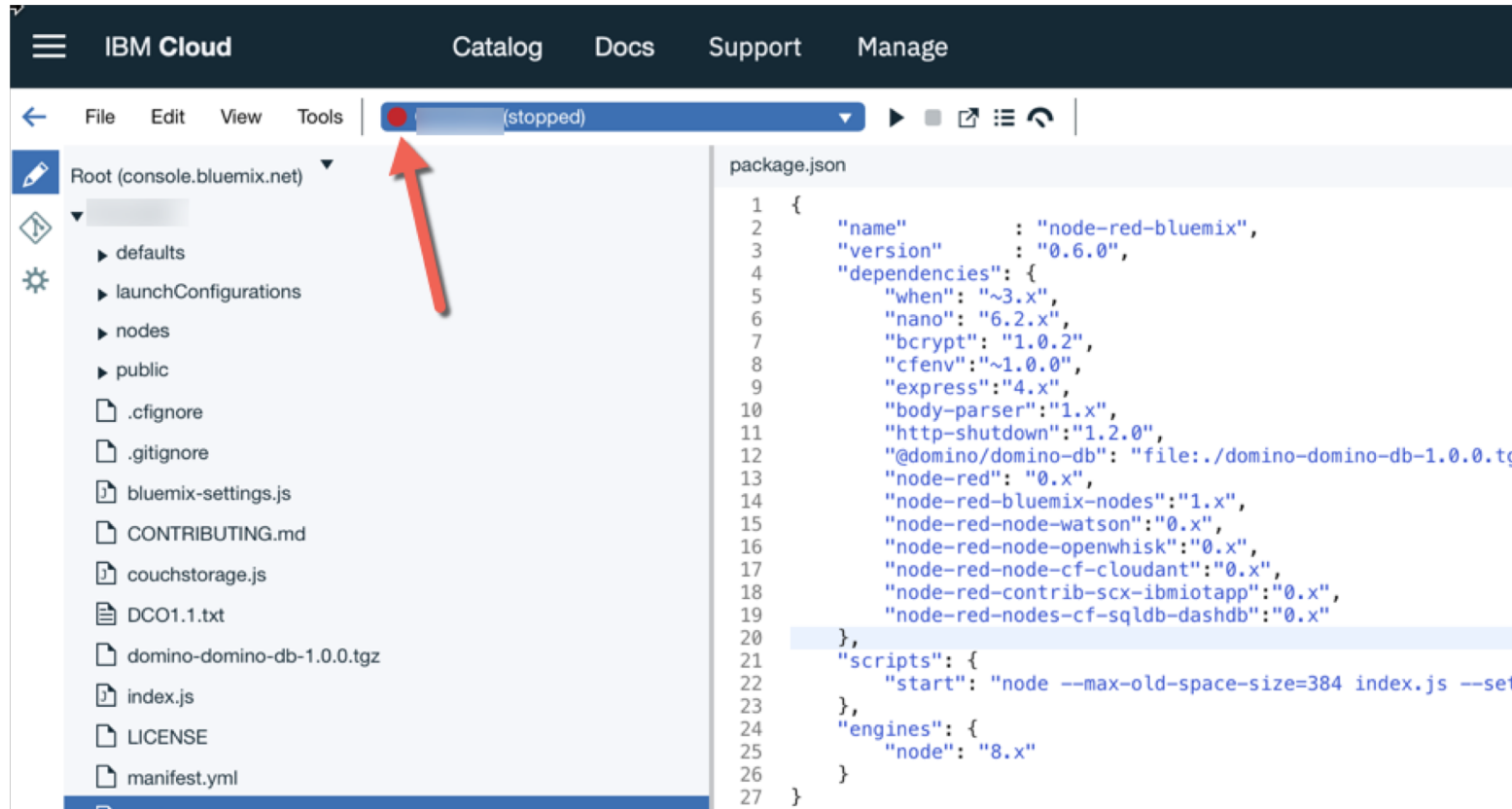
Commit message:
Enter the commit message

Commit

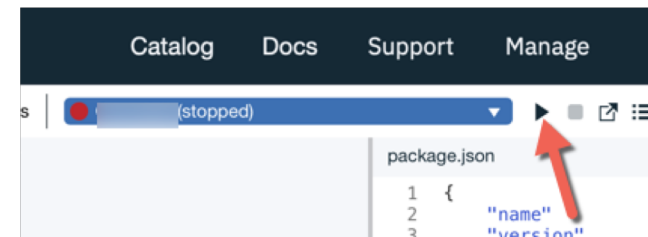
Going back to the editor, you should see your instance



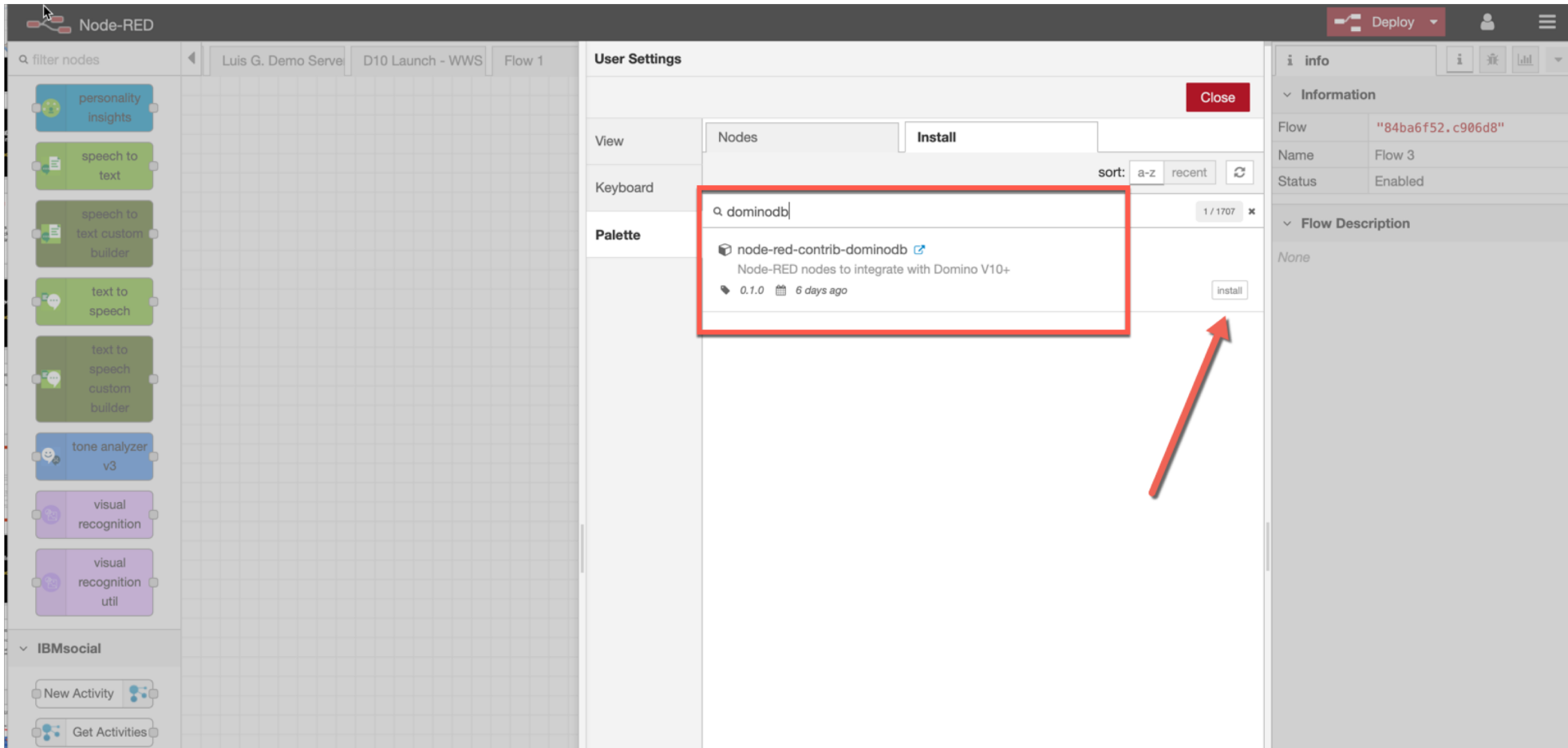
The instance should redeploy automatically



In case it does not, you can redeploy manually using this arrow:



Open your NodeRED Editor



Install **node-red-contrib-dominodb** using the standard “Manage Palette” functionality in NodeRed

The NodeRED package is installed and ready to be used

