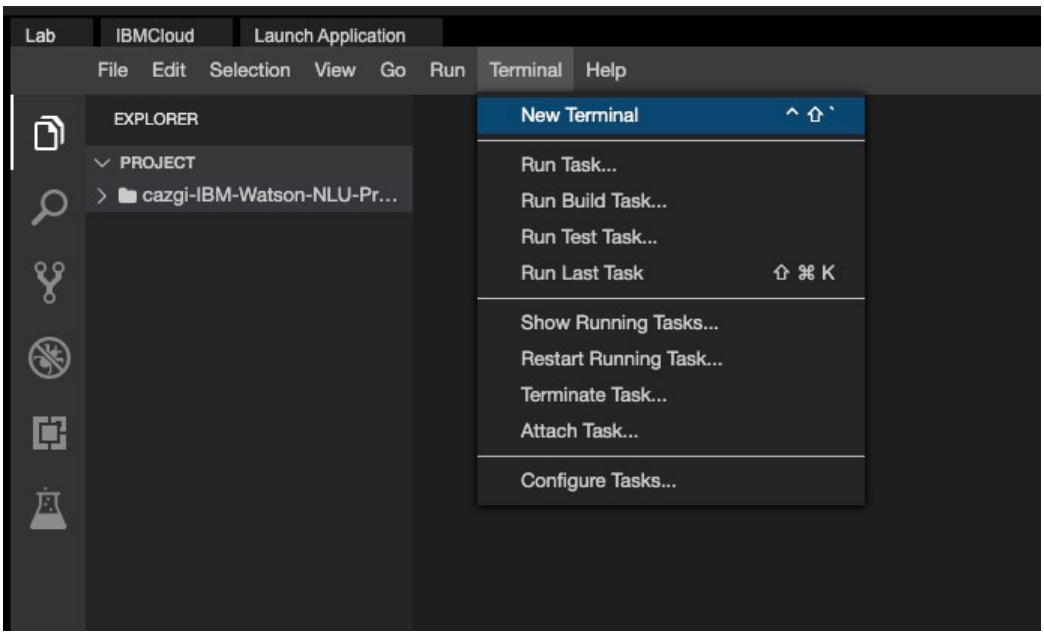
+ - #ccc
Step 1 of 2

IBM Developer
SKILLS NETWORK

Log into IBM Cloud

1. In order to deploy the application to IBM Cloud, you first have to sign into IBM Cloud using the CLI in the lab environment. Open the terminal in the editor by going to `Terminal -> New Terminal`.



The rest of the instructions assume you are in the `sentimentAnalyzeServer` directory where the manifest file is present.

2. If you are doing this part of the project by cloning your code from your repository:
    - navigate to **sentimentAnalyzeClient** directory
    - run `npm install -s`
    - run `npm run-script build`
    - navigate to **sentimentAnalyzeServer** directory
    - run `npm install -s`
    - create **.env** file with the NLU credentials.

3. Let's sign into IBM Cloud in the terminal using the following command:

```
ibmcloud login -u email
```

Replace `email` with the email you used to sign up for IBM Cloud. You will be asked for password and should see a message as follows after you have successfully logged in:

```
theia@theiadocker-ulidder:/home/project/cazgi-IBM-Watson-NLU-Project$ ibmcloud login -u cloudappdevs@gmail.com
API endpoint: https://cloud.ibm.com
Region: us-south

Password>
Authenticating...
OK
```

```
Targeted account Cloudapp Devs (c1efa0d5bbda462dac88a908e27570cd)


API endpoint:      https://cloud.ibm.com
Region:            us-south
User:              cloudappdevs@gmail.com
Account:           Cloudapp Devs (c1efa0d5bbda462dac88a908e27570cd)
Resource group:    No resource group targeted, use 'ibmcloud target -g RESOURCE_GROUP'
CF API endpoint:
Org:
Space:
```

If you see message from IBM Cloud to collect your statistics, you can answer with `y` for yes or `n` for no.

```
We'd like to collect usage statistics to help improve the IBM Cloud CLI.
This data will never be shared outside IBM.
To learn more, see the IBM Privacy Policy: https://www.ibm.com/privacy
You can enable or disable usage data collection by running 'ibmcloud config --usage-stats-collect [true | false]'

Do you want to send usage statistics to IBM? [y/n]> n
```

4. Find you account details by running the following command.

```
ibmcloud account orgs
```

This will give you the details about your account. Notedown the `Region` and the `Account owner` details. We will use it in the next steps.

5. The next step is to target CloudFoundry as follows:

```
ibmcloud target --cf-api https://api.REGION.cf.cloud.ibm.com -r REGION -o ACCOUNTOWNER
```

In the above command, replace the REGION and ACCOUNTOWNER with the values noted down in step 3.

```
theia@theiadocker-ulidder:/home/project/cazgi-IBM-Watson-NLU-Project$ ibmcloud target --cf-api https://api.us-south.cf.cloud.ibm.co


Targeted Cloud Foundry (https://api.us-south.cf.cloud.ibm.com)

Targeted org cloudappdevs@gmail.com

Targeted space dev



API endpoint:      https://cloud.ibm.com
Region:            us-south
User:              cloudappdevs@gmail.com
Account:           Cloudapp Devs (c1efa0d5bbda462dac88a908e27570cd)
Resource group:    No resource group targeted, use 'ibmcloud target -g RESOURCE_GROUP'
CF API endpoint:   https://api.us-south.cf.cloud.ibm.com (API version: 2.156.0)
Org:               cloudappdevs@gmail.com
Space:             dev
```

6. You might have to optionally install the `cf` plugin as follows:

```
theia@theiadocker-ulidder:/home/project/cazgi-IBM-Watson-NLU-Project$ ibmcloud cf install
Attempting to download Cloud Foundry CLI...
 8.56 MiB / 8.56 MiB [=============================================================================================================================]
8973024 bytes downloaded
Saved in /home/theia/.bluemix/tmp/cf_270649375/cf-cli_6.53.0_linux_x86-64.tgz
Installing Cloud Foundry CLI...
OK
Cloud Foundry CLI is successfully installed
```

7. If you are running this code for the first time and you don't have an account space created, run the following command to create an account space. It has been named senti-analyzer. You can give it any name you want.

```
ibmcloud account space-create sentiment-analyzer
```

8. We should now set the space that we just created as the target space for our application deployment.

```
ibmcloud target -s sentiment-analyzer
```

9. Before we deploy the application, let's change the name to something unique across IBM in the `manifest.yaml` file. I am just adding my name followed by three random numbers here. That should make the name unique. If it complains, you can try another set of numbers. Please keep the memory under 256MB as that is the total memory available with the IBM Cloud lite account.

```
---
applications:
```

```
- path: .
  name: upkar-817-sentiment-analyzer #change to be unique in IBM Cloud
  buildpack: sdk-for-nodejs
  memory: 256M
  instances: 1
  random-route: true
```

Deploy application

We can now deploy our application with `ibmcloud` as follows. Make sure to run this command in the `/home/project/cazgi-IBM-Watson-NLU-Project/sentimentAnalyzeServer` where the `manifest.yml` file is present.

```
ibmcloud app push
```

You should see output like the example below:

```
theia@theiadocker-ulidder:/home/project/cazgi-IBM-Watson-NLU-Project/sentimentAnalyzeServer$ ibmcloud app push
Invoking 'cf push'...

Pushing from manifest to org cloudappdevs@gmail.com / space dev as cloudappdevs@gmail.com...
Using manifest file /home/project/cazgi-IBM-Watson-NLU-Project/sentimentAnalyzeServer/manifest.yml
Getting app info...
Creating app with these attributes...
+ name:         upkar-817-sentiment-analyzer
  path:         /Users/upkar/Documents/upkar-code/node-hello-world
  buildpacks:
+   sdk-for-nodejs
+ instances:    1
+ memory:       256M
  routes:
+   upkar-817-sentiment-analyzer-fearless-lion.mybluemix.net

Creating app upkar-817-sentiment-analyzer...
Mapping routes...
Comparing local files to remote cache...
Packaging files to upload...
Uploading files...
 2.56 KiB / 2.56 KiB [=============================================================================================================] 1

Waiting for API to complete processing files...


...

Waiting for app to start...

name:              upkar-817-sentiment-analyzer
requested state:   started
routes:            upkar-817-sentiment-analyzer-fearless-lion.mybluemix.net
last uploaded:     Thu 10 Dec 21:12:26 PST 2020
stack:             cflinuxfs3
buildpacks:        sdk-for-nodejs

type:            web
instances:       1/1
memory usage:    256M
start command:   npm start
     state     since                  cpu    memory          disk          details
#0   running   2020-12-11T05:12:43Z   0.0%   24.8M of 256M   84.9M of 1G
```

The final URL of the application is displayed in the routes line in the output above. For me this happens to be:

```
upkar-817-sentiment-analyzer-fearless-lion.mybluemix.net
```

The `upkar-817-sentiment-analyzer` is my application name and `-fearless-lion` was added because we set `random-route` to `true` in the `manifest.yaml` file. If you delete the application and re-create it, you might get a different random text at the end of the URL. Please ensure the final URL that you submit for peer review is the one deployed. If you need to redeploy your application. Make your changes and simply run `ibmcloud app push` again from the directory where the manifest.yaml file resides.

Congratulations! We hope you've deployed an application to Cloud Foundry on IBM Cloud using the command line interface.

Peer review Submission

That was the final step of the project. Submit the following images for peer-review.

- watsonnluservice.jpg - screenshot showing Watson NLU service in the resources page.

- watsonnlucreds.jpg - screenshot showing masked credentials for Watson NLU service.

Additionally submit the following URLs:

- URL of the forked repository under your Github account. This repository should be public and not private.
- URL of the final application running on IBM Cloud.

Author(s)

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Changelog

Date	Version	Changed by	Change Description
2020-12-01	0.1	Lavanya	Initial version created
2021-10-07	0.1	Sourabh	Instructions for starting from Git clone included

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