

## Lab 4: Create UI Toolchain from Deployed App

### Objective

This lab manually deploys the UI microservice, creates a simple Toolchain from the deployed application and then configures the Toolchain. It assumes that the *DevOpsLabs* Organization and *dev*, *qa* and *prod* Spaces are already created.

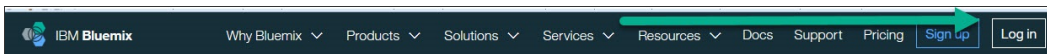
#### Tasks:

- [Task 1: Deploy UI Application](#)
- [Task 2: Create Toolchain](#)
- [Task 3: Build Application](#)

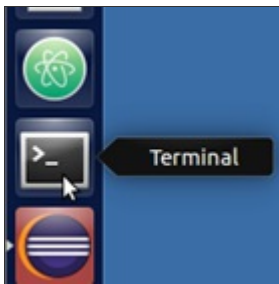
Throughout the lab, the phrase *timestamp* is used to indicate the same timestamp string that was appended to *simple-order-toolchain*. While a timestamp string is not required, it does help make the name of the created objects unique.

### Task 1: Deploy UI Application

1. If you are not already logged into IBM Bluemix, log into IBM Bluemix (<https://www.ibm.com/cloud-computing/bluemix/>).



2. If you are using the Ubuntu VMWare image, open a terminal Window by selecting **Terminal** from the Launcher.



If you are using your own machine, open up a command prompt.

3. The sample code that you will be using is in a github repository. We will clone (make a copy) onto our local machine, In a terminal window, enter the following command:

```
git clone https://github.com/open-toolchain/Microservices_UI
```

4. Change into the just created directory. `cd Microservices_UI`

5. If you are curious, you can enter the ls command to see the files.

6. Login to Bluemix from the command line by entering the following command:

```
bx login -a https://api.ng.bluemix.net -u userid@domain.com -o _org_name_ -s prod
```

7. Push the application to Bluemix with the following command:

```
bx app push prod-ui-toolchain-lab-<i>timestamp</i>
```

```
App prod-ui-toolchain-lab-20170608183857891 was started using this command `SHOWM
E/.bp/bin/start`

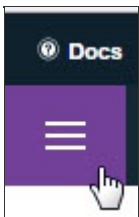
Showing health and status for app prod-ui-toolchain-lab-20170608183857891 in org
BluemixCloudDeveloper / space prod as BluemixCloudDeveloper@gmail.com...
OK

requested state: started
instances: 1/1
usage: 64M x 1 instances
urls: prod-ui-toolchain-lab-20170608183857891.mybluemix.net
last uploaded: Fri Jun 9 16:47:56 UTC 2017
stack: unknown
buildpack: php_buildpack

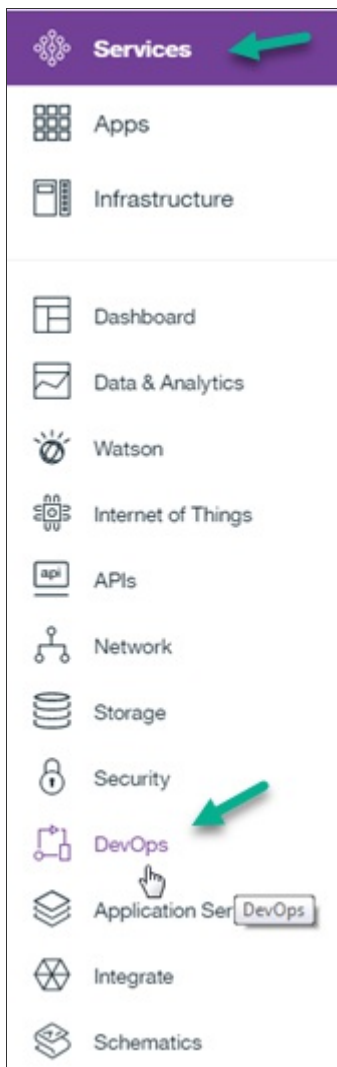
state      since      cpu      memory    disk      details
#0  running  2017-06-09 12:49:16 PM  0.0%    0 of 64M  0 of 1G
localuser@ubuntu-base:~/Microservices_UI$
```

## Task 2: Create Toolchain

1. Return to the Bluemix console.
2. If you are not on the Toolchains page (if you don't see a button called *Create a Toolchain*), click on the **Bluemix menu bar** in the upper left corner.

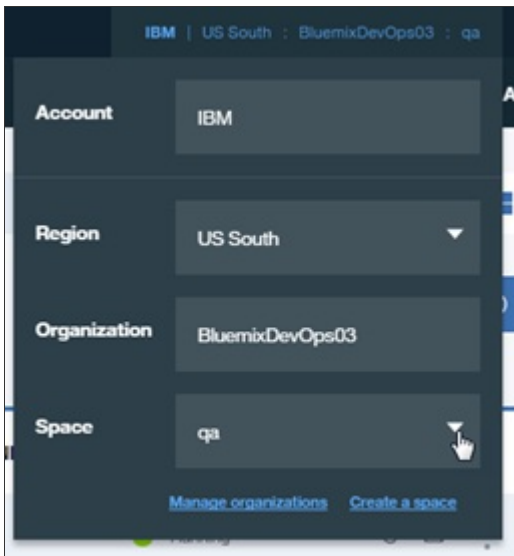


and click on **Services** then **DevOps**

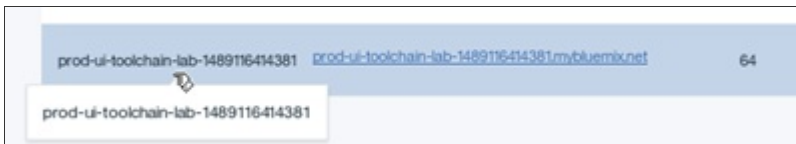


and click on **Toolchains**.

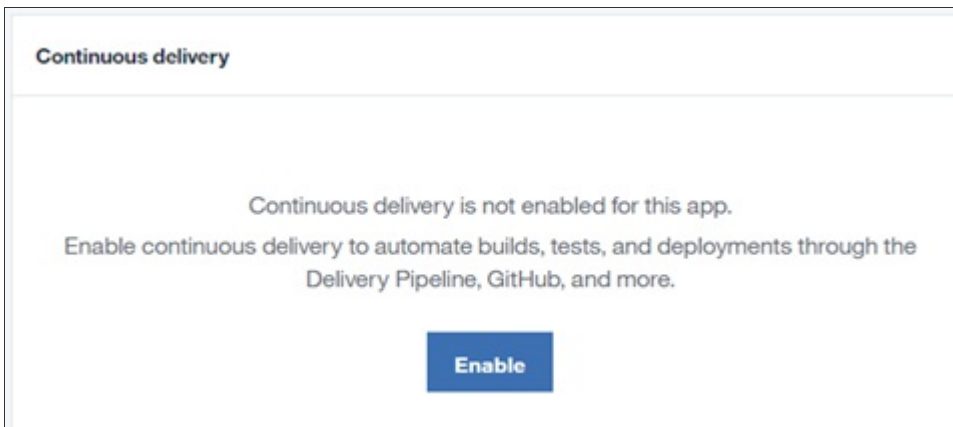
3. Click **Create a Toolchain**.
4. Click on the link **Create a toolchain from an application**. It is on the left of the screen.
5. If the *prod* space is not displayed in the upper right hand corner, click the upper-right hand corner account settings and select **prod** as the *Space*.



6. Click on the application to display the application dashboard.
7. Click on your (just created) application to display the application overview page.




8. Click on the **Enable** button for *Continuous Delivery*.





9. The Continuous Delivery Toolchain creation page is displayed and pre-filled with information about the application.

Organization: BluemixCloudDeveloper / Toolchain Name: prod-ui-toolchain-lab-20170608183857891

### Tool Integrations

  
Git Repos and Issue Tracking

  
Eclipse Orion Web IDE

  
Delivery Pipeline

Git repos and issue tracking hosted by IBM and built on GitLab Community Edition.

Repository type:  
New

Create an empty repository.

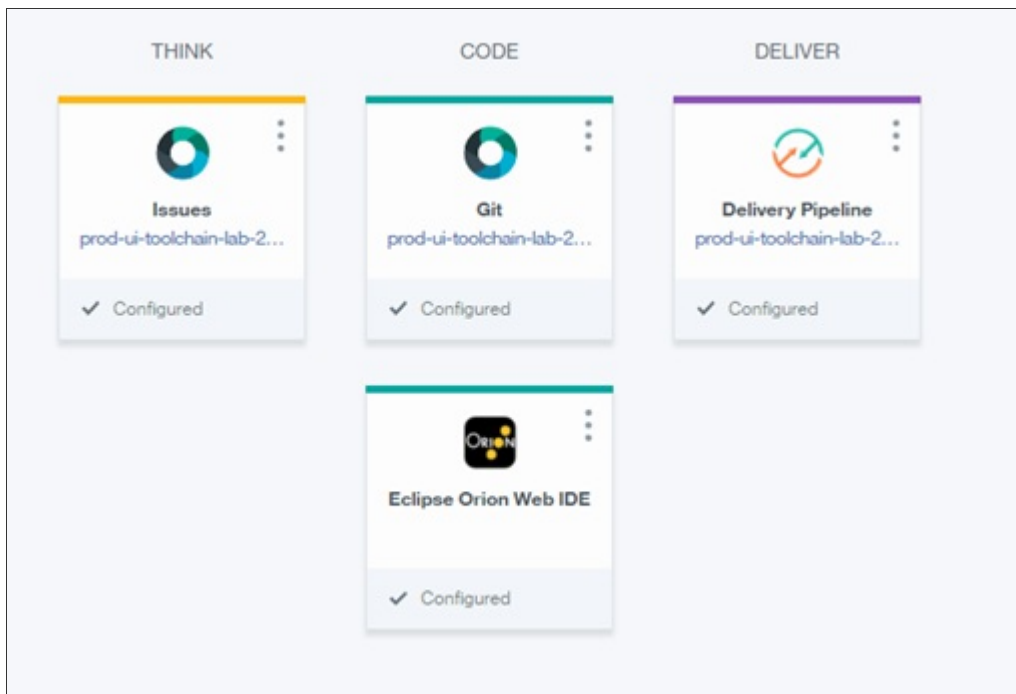
New repository name:  
prod-ui-toolchain-lab-20170608183857891

☒ Make this repository private ⓘ

☒ Enable issues ⓘ

☒ Track deployment of code changes ⓘ

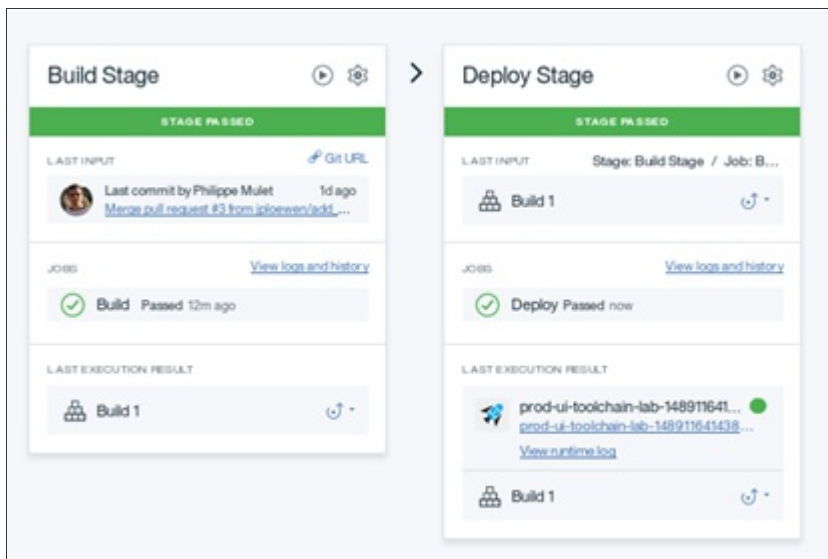
10. We need to clone the Git repo (remember, earlier from the command line we created a local cloned copy on the local machine). The pre-built integration is to *Git Repos and Issue Tracking*, the IBM hosted repos and issue tracking based on GitLab.
11. Change *Repository type*: to **Clone**.
12. Enter **[https://github.com/open-toolchain/Microservices\\_UI](https://github.com/open-toolchain/Microservices_UI)** as the *Source repository URL*.
13. Click **Create**. The Toolchain is created.



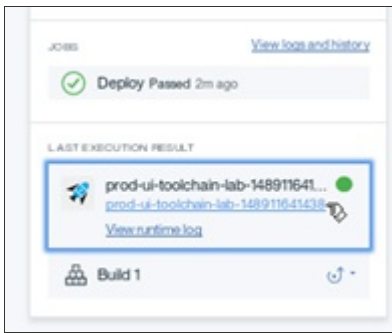
Note the *Issues* and *Git* icons are different then before as *Git Repos* and *Issue Tracking* is being used.

### Task 3: Build Application

1. On the Bluemix *Create a Toolchain* page, click the blue arrow to the left of *Toolchains* to return to the Toolchains.
2. Click the just created Toolchain (*prod-ui-toolchain-lab-timestamp*).
3. Click on the *Delivery Pipeline* tile.
4. Run the *Build Stage*.
5. The *Build* and *Deploy* stages complete (the *Deploy Stage* was started as a result of the *Build Stage* completing successfully).



6. Click on the application URL.



7. Assuming the microservices names match up, the application works. If not, don't worry, somewhere along the way the **timestamp** may have been mistyped.



8. Close the application tab.
9. If you wish, you can add more jobs or stages.
10. On the (*prod-ui-toolchain-lab-timestamp*) page, click the blue arrow to the left of *Toolchains* to return to the Toolchains.