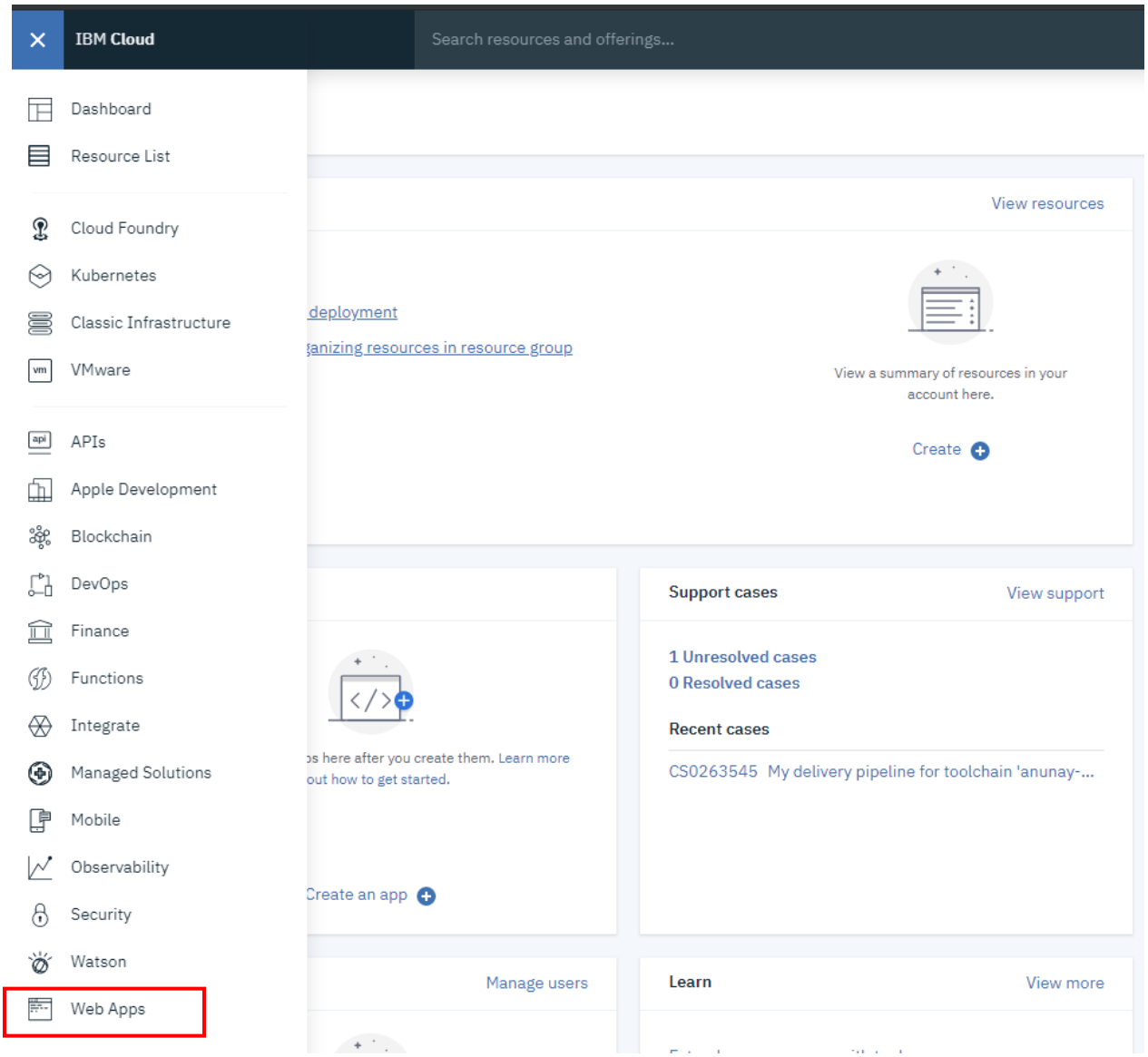
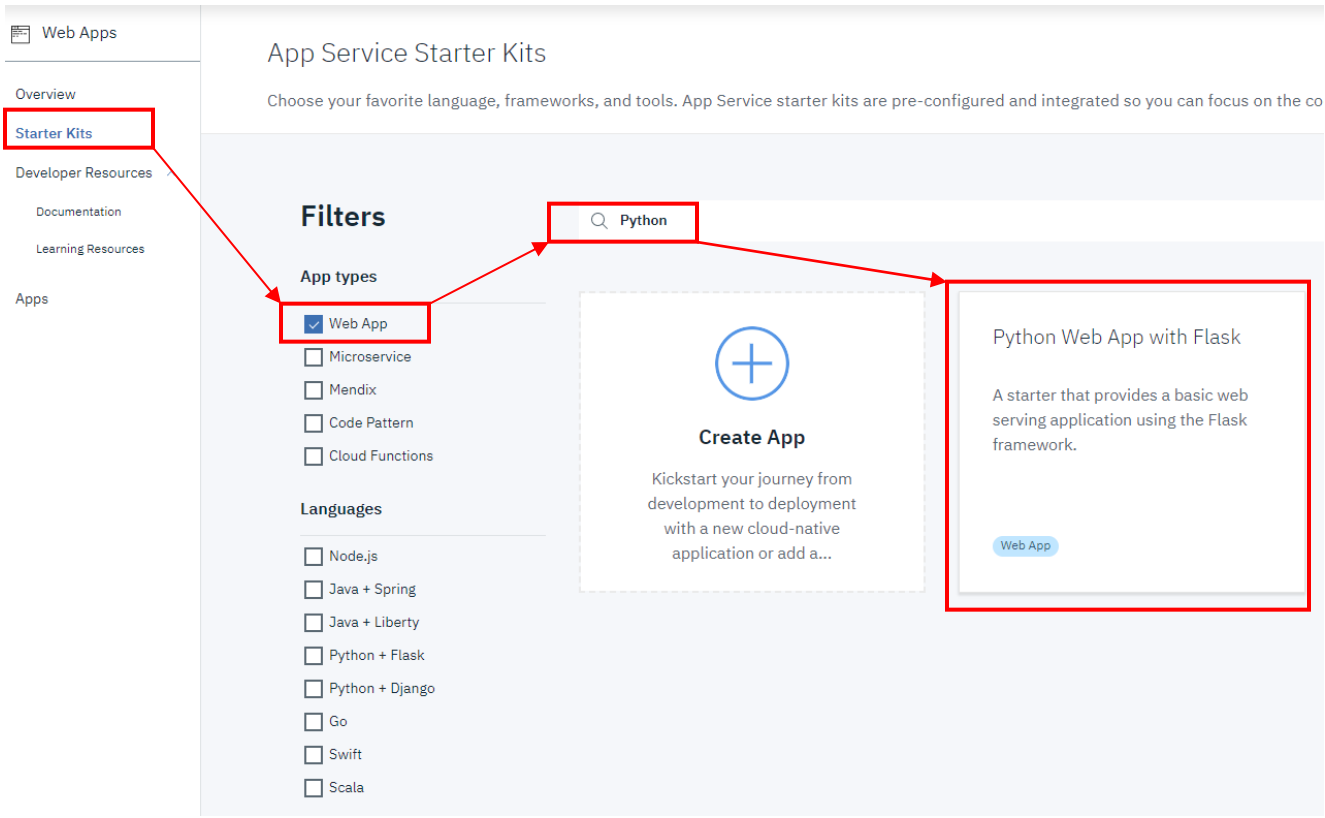
Step 1

Login to https://cloud.ibm.com/ and from side bar menu choose Web Apps



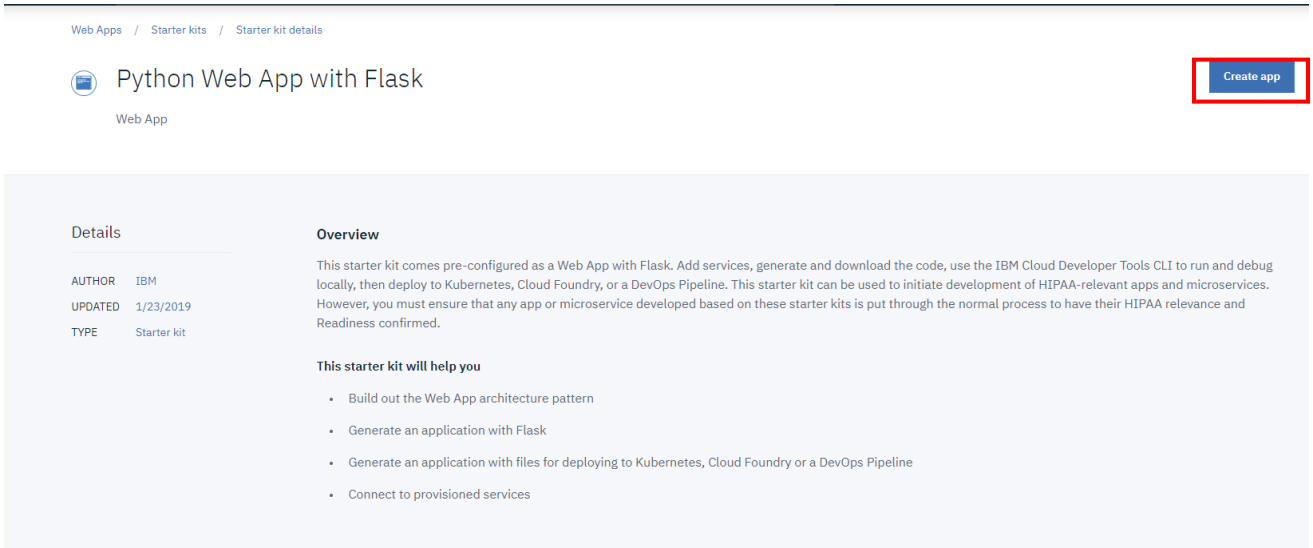
Step 2

Click on ‘Starter Kits’ and filter by ‘Web App’ with ‘Python’ and select ‘Python Web App with Flask’



Step 3

Click on the ‘Create App’ button on the top right of the starter kit details page



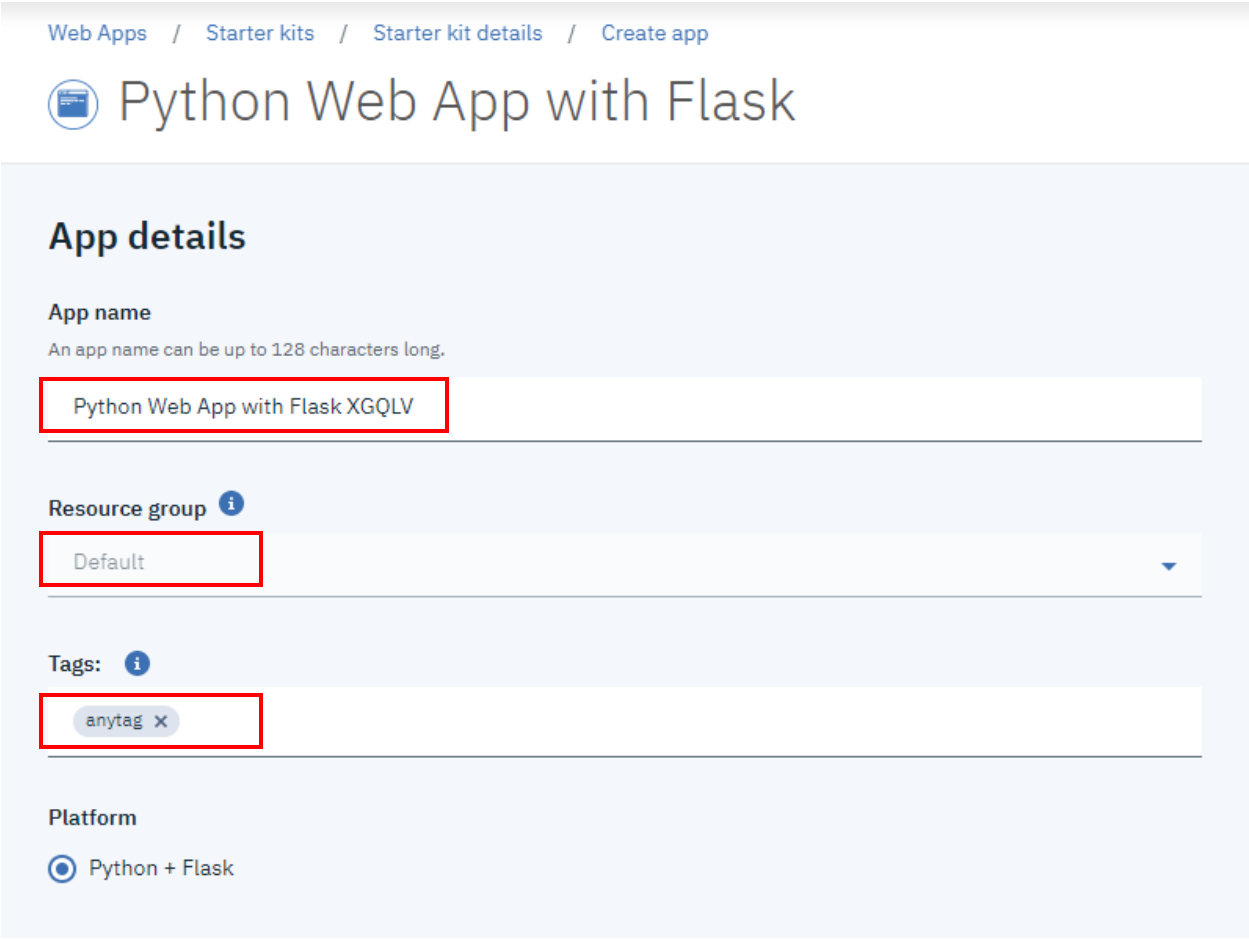
Step 4

Fill in the required details as below and click on ‘Create’ on top right of the page.

App name – You can keep the default name or chose a new one

Resource group – Leave default

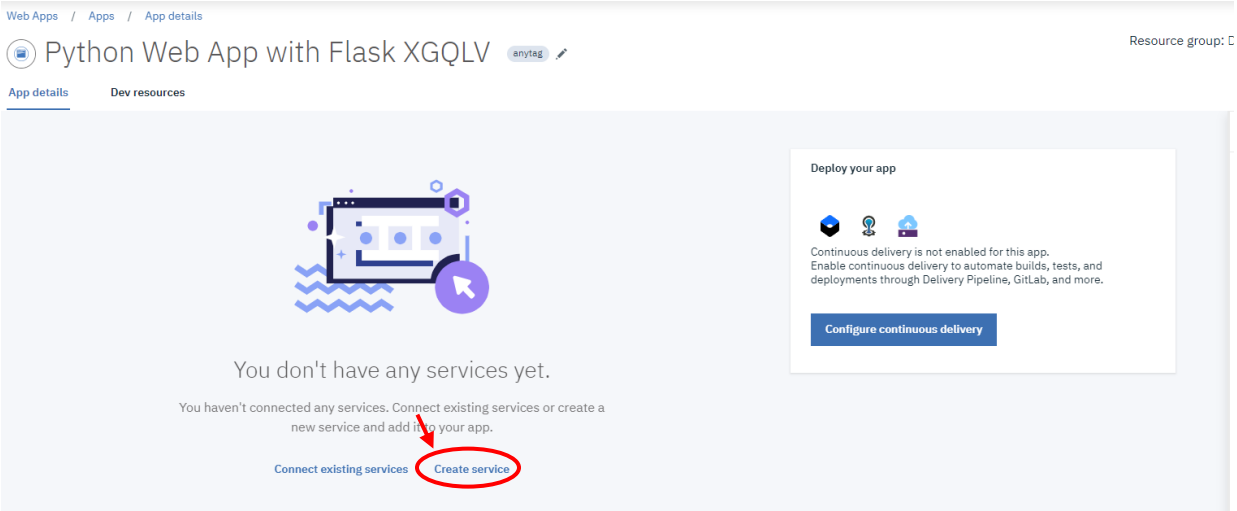
Tags – Choose any tag



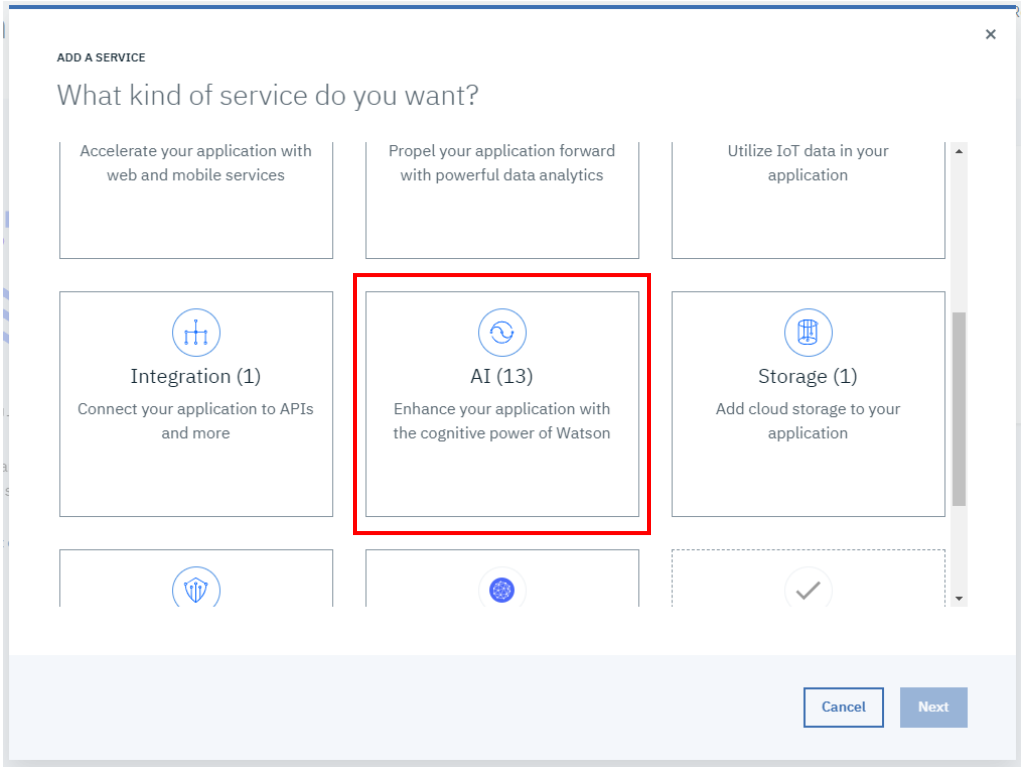
Your next view will be the App details page.

Step 5

On the App details page, click on ‘Create Service’ button to create the Watson Natural Language Understanding Service for your application.

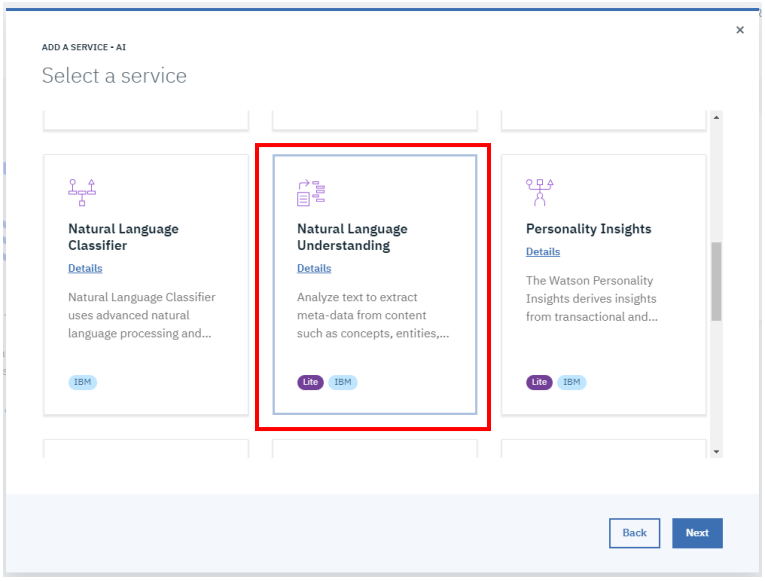


Scroll down and select AI (13) box on the displayed pop-up and click Next.

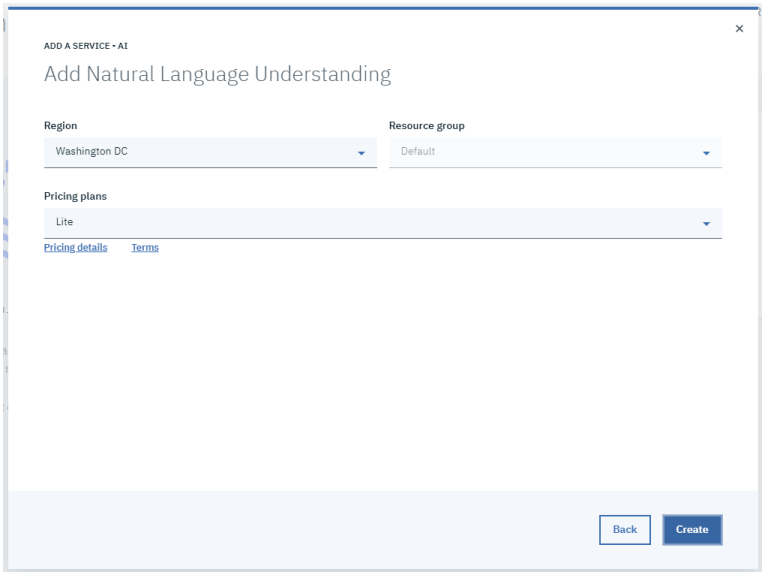


Step 5 ... continued

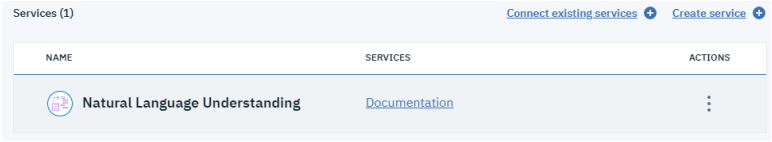
Scroll down and select ‘Natural Language Understanding’ and click Next.



Leave all the default values and click on ‘Create’ button

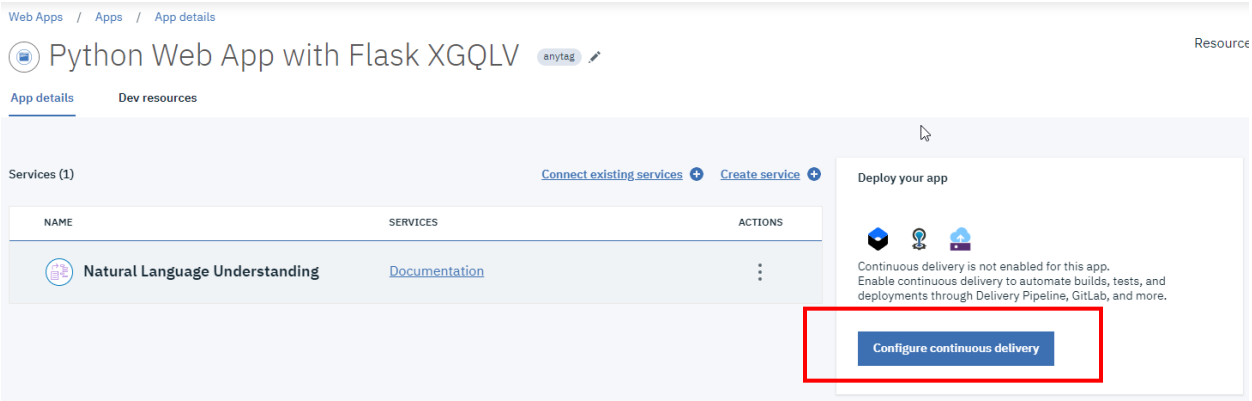


You should now see the service created on the App details page

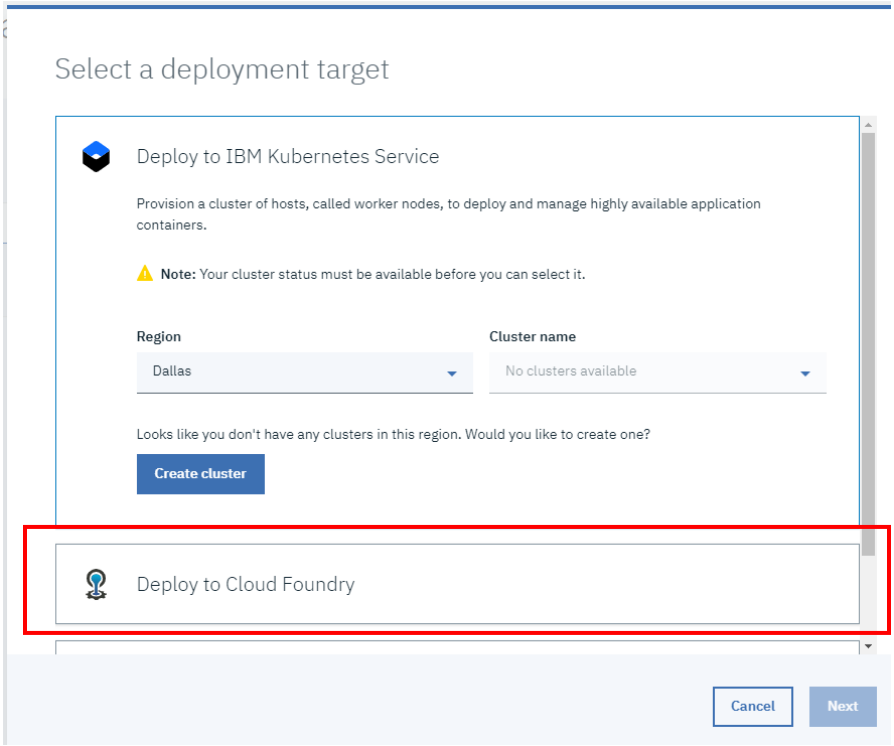


Step 6

Now, click on the 'Configure continuous delivery' button.



Select 'Deploy to Cloud Foundry'

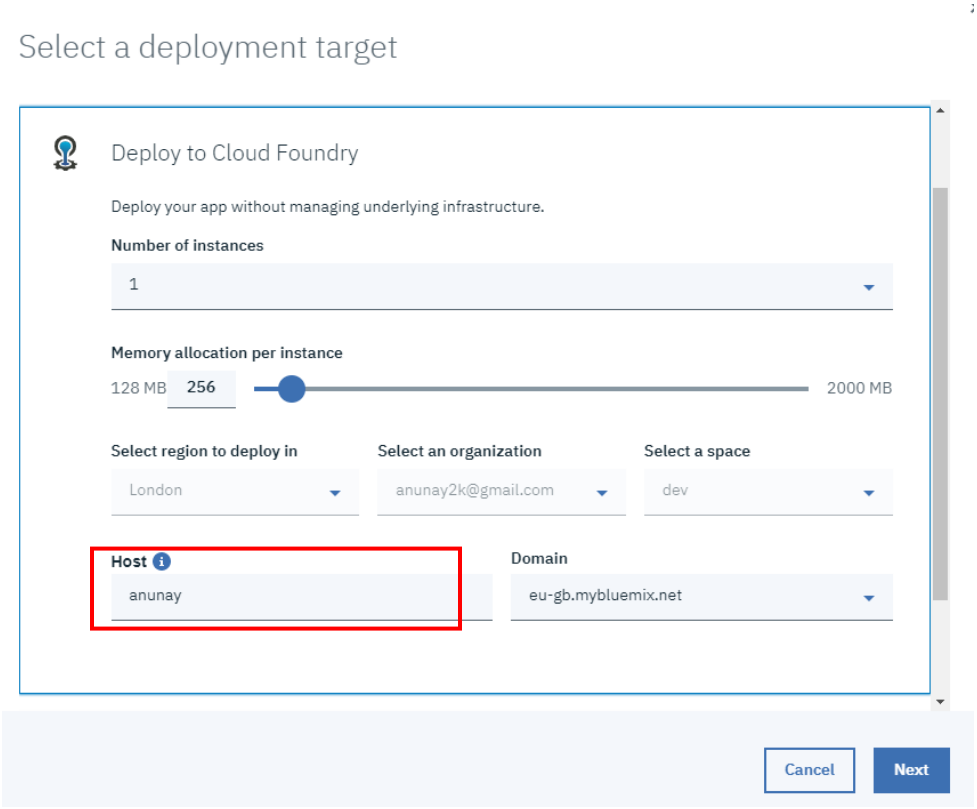


DO NOT CLICK 'Next' button yet.

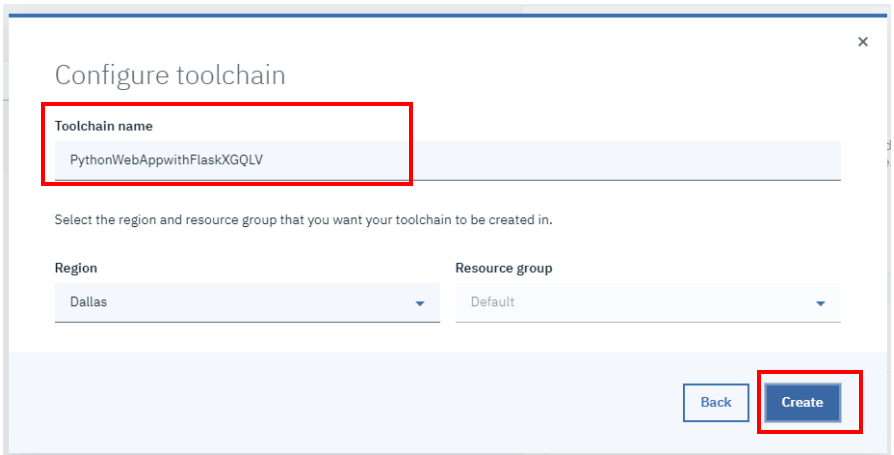
Step 6 ... continued

Once you select 'Deploy to Cloud Foundry, leave all the default values. **Only change the 'Host' field** and change it to any value. The host field value results in a publicly accessible domain name so you can even set it to your own unique name as shown below. Ex – As per below image, this app will be accessible on -

https://anunay.eu-gb.mybluemix.net

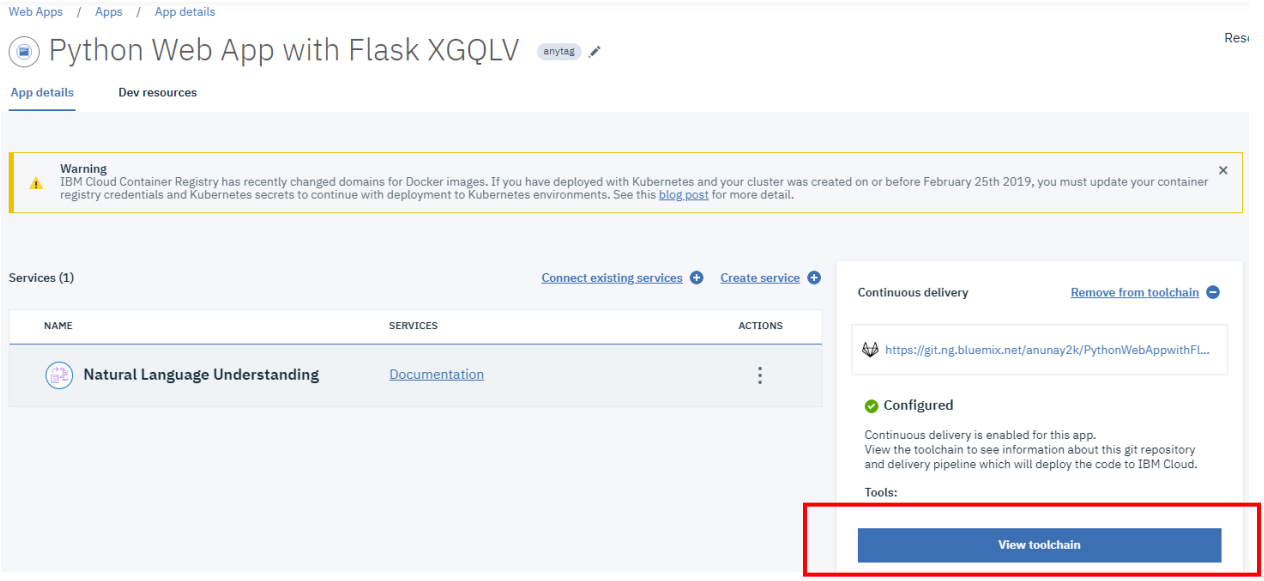


After clicking 'Next' button, on next page, set a name for your toolchain or leave the default one and click on 'Create' button. **Do not change the default region.** Toolchain takes a few minutes to create.

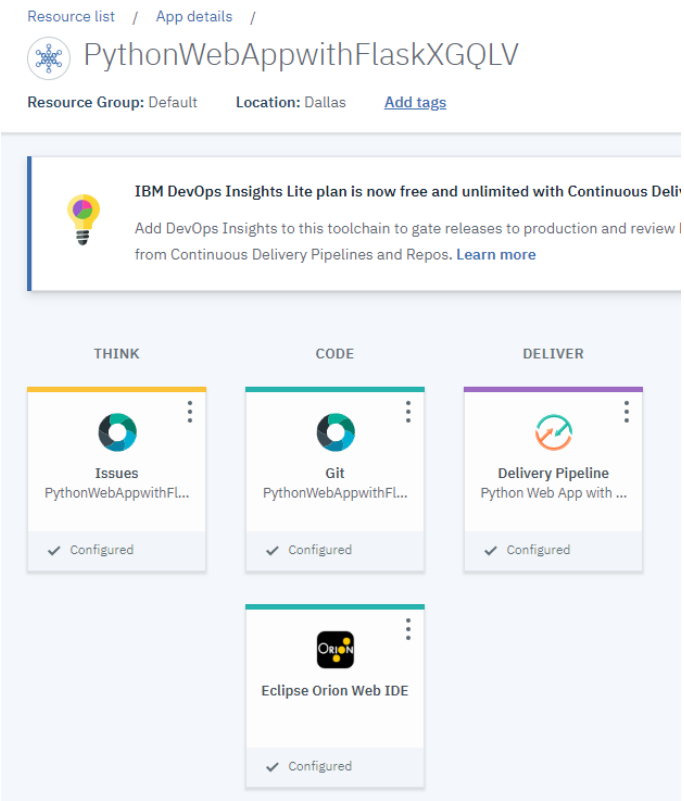


Step 7

Navigate to the newly create Toolchain. On the App details page, click on the 'View Toolchain' button.



Toolchain is created with a web-based Eclipse Editor, Git Repo and a delivery pipeline.

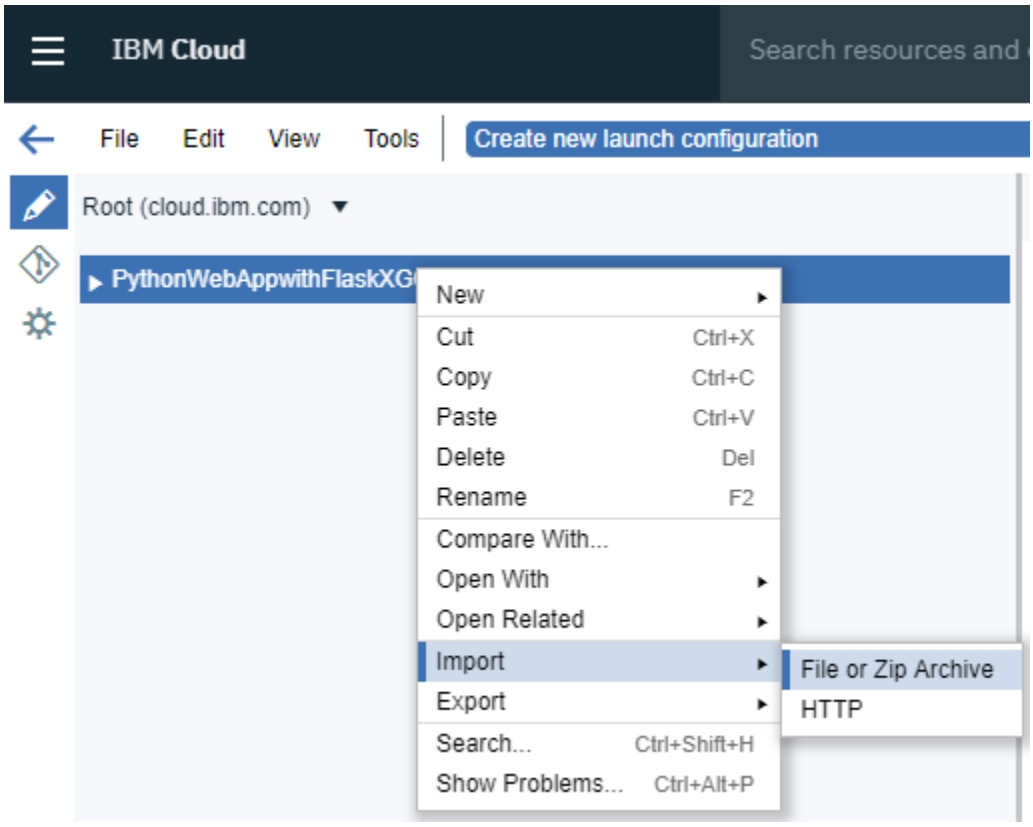


We are now done with the initial Web App setup.

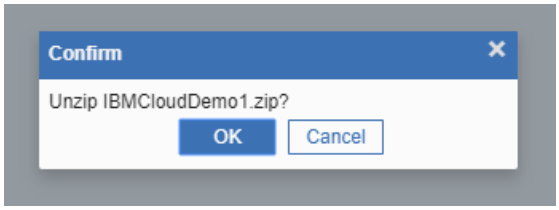
Step 8

Let's code our Web App now. While in the Toolchain, click on the 'Eclipse Orion Web IDE'. This will launch the code editor where we will import the pre- modified code. Download the zip file with modified code here - https://github.com/kumaranunay123/ibmclouddemo1/raw/master/IBMCloudDemoV1.zip

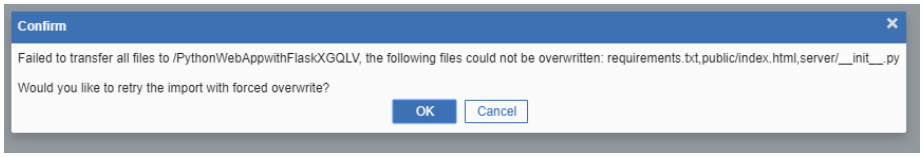
In Eclipse IDE, right click on the project and Select Import



Click OK to unzip the file.



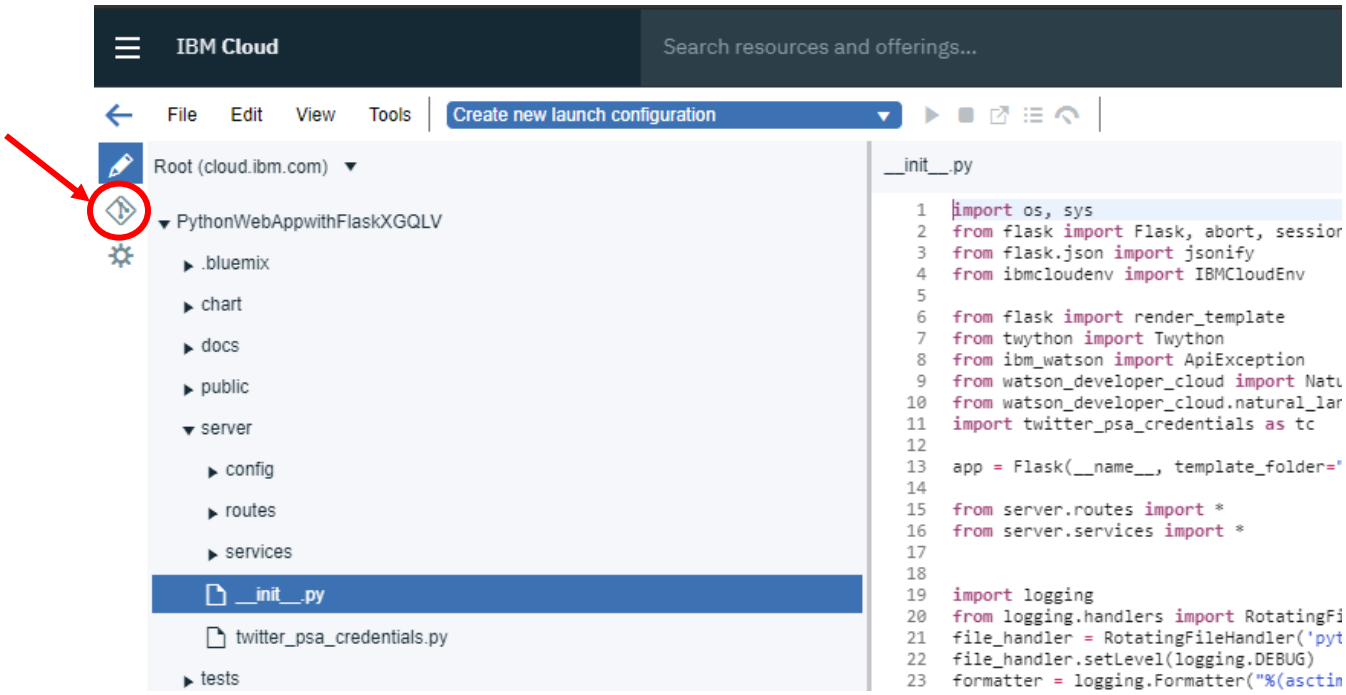
Click OK to force overwrite the existing code.



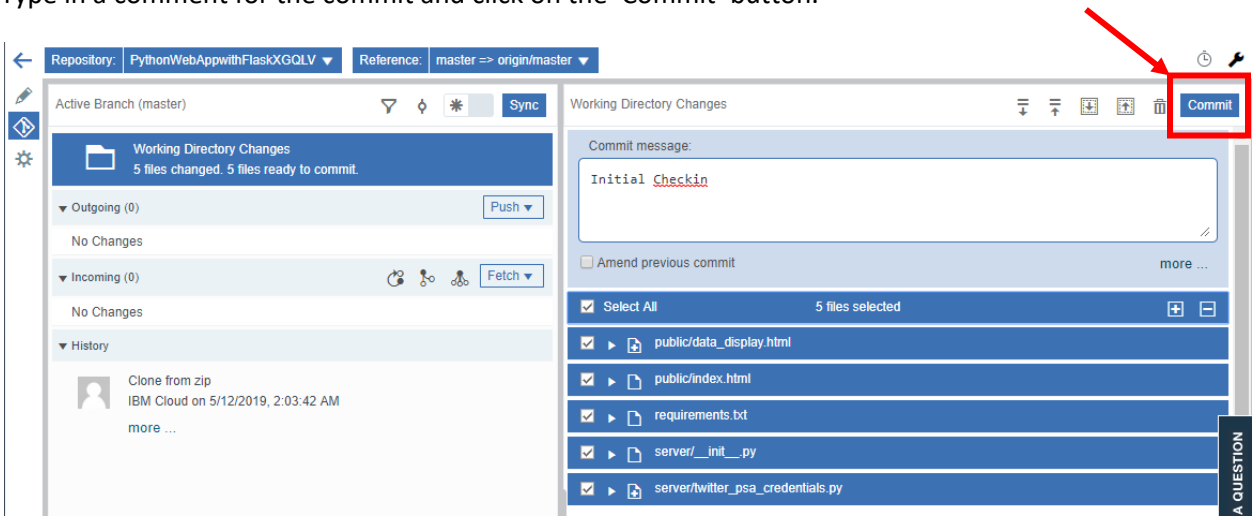
Step 9

The code is now imported. Now we need to commit the new code in Git that we just imported.

Click on the Git button on side menu bar to load the Git view.

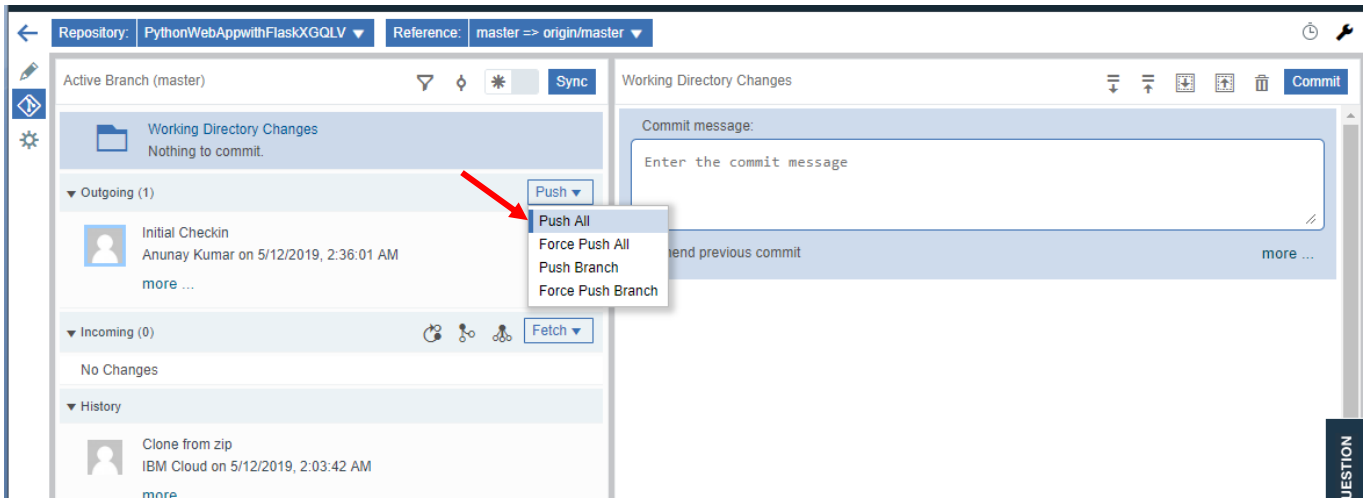


Type in a comment for the commit and click on the 'Commit' button.

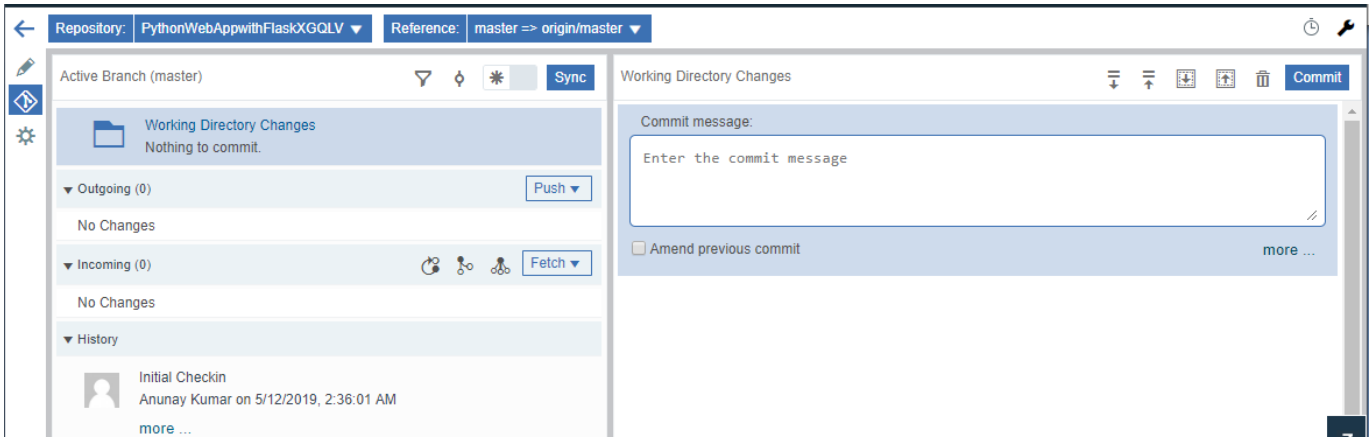


Step 9 ... continued

Now push the changes to the repository. From the 'Outgoing' block choose the 'Push All' option from the dropdown.



Once the changes are pushed successfully, there should be no outgoing changes in queue.

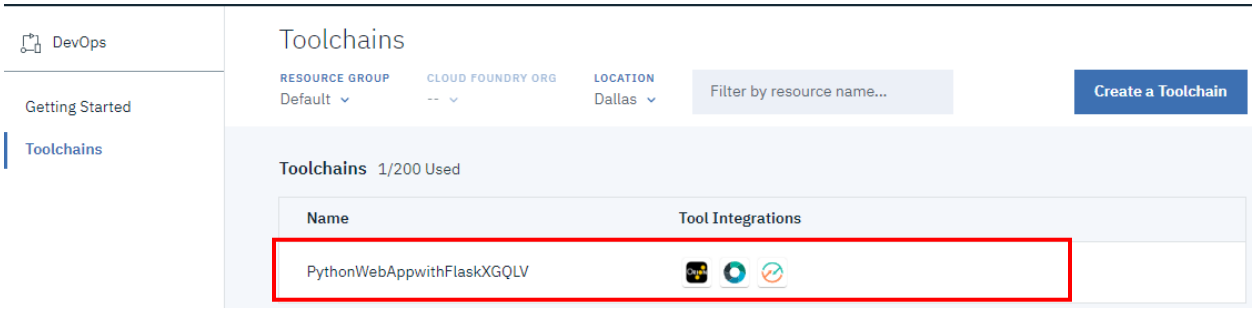


At this point the delivery pipeline gets triggered and redeploys your app with the modified code.

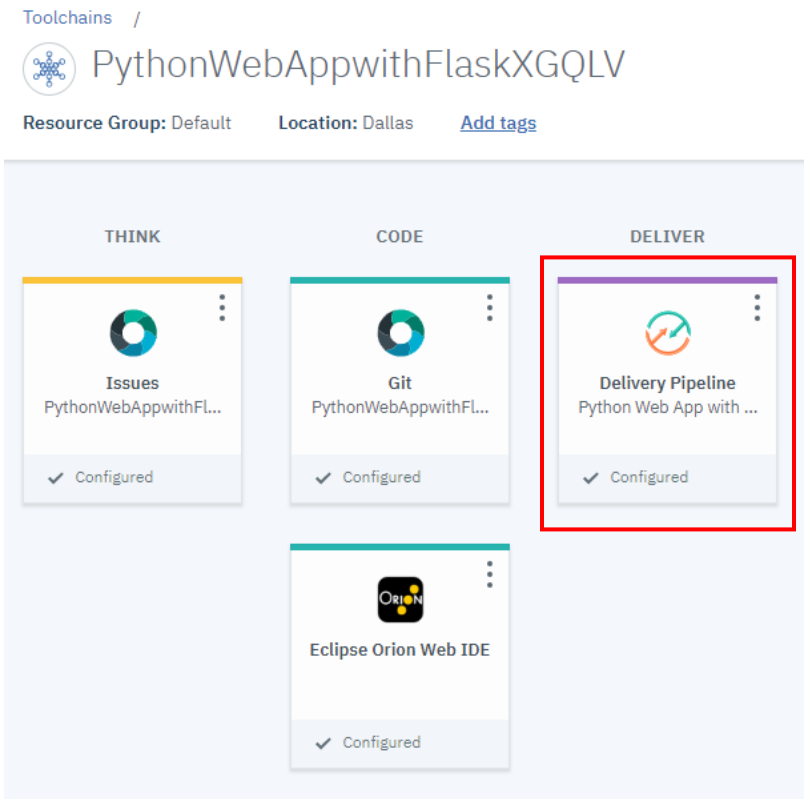
Step 10

Navigate to the Delivery pipeline from the Toolchain.

Go to Toolchains - https://cloud.ibm.com/devops/toolchains
Select the correct data center that has your tool chain which is 'Dallas' in most cases.
Click on the Toolchain for your app.

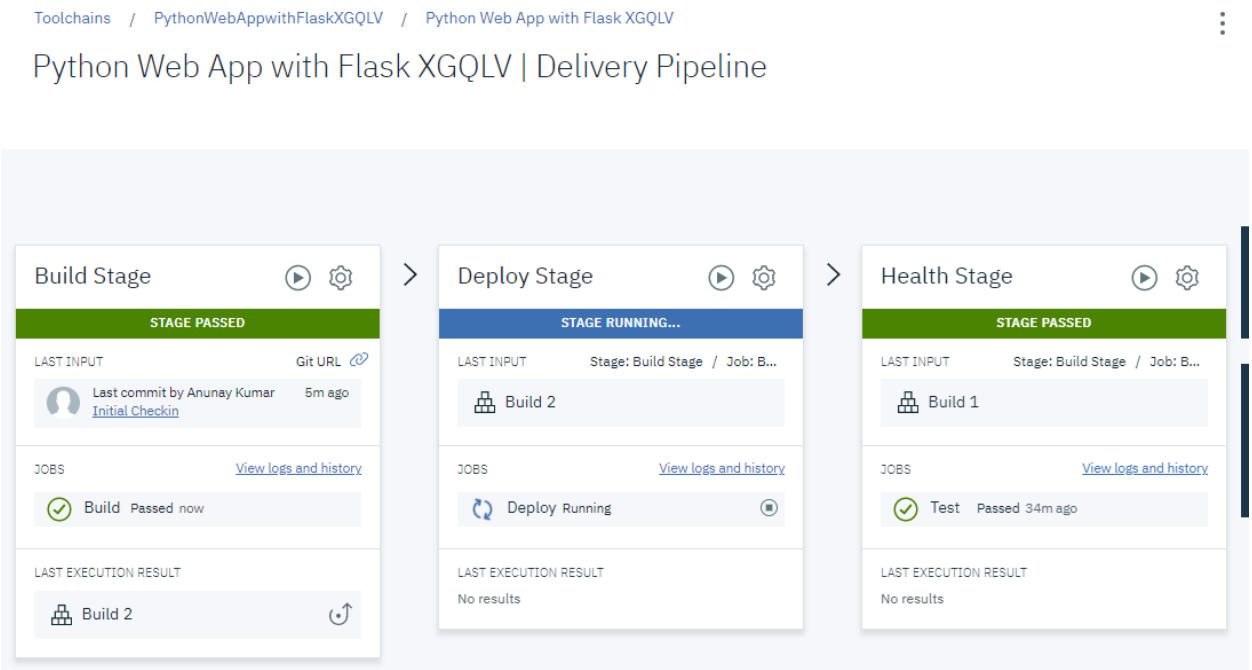


Click on the Delivery Pipeline

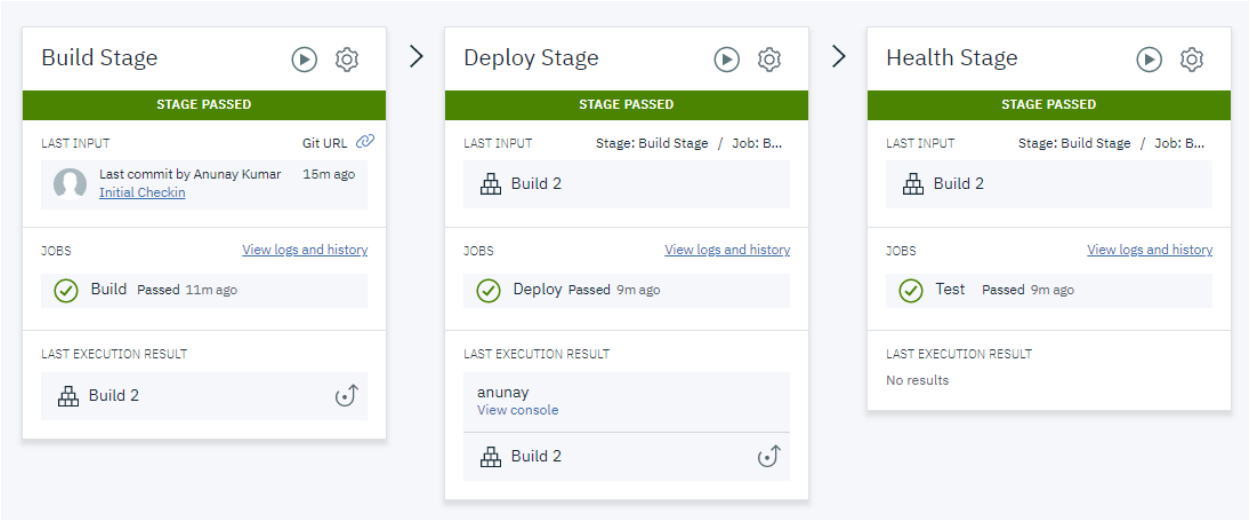


Step 10 ... continued

The below image shows the current status of the delivery pipeline where the deployment of the application is in progress.



Once the pipeline completes, all the stages must be green as below.

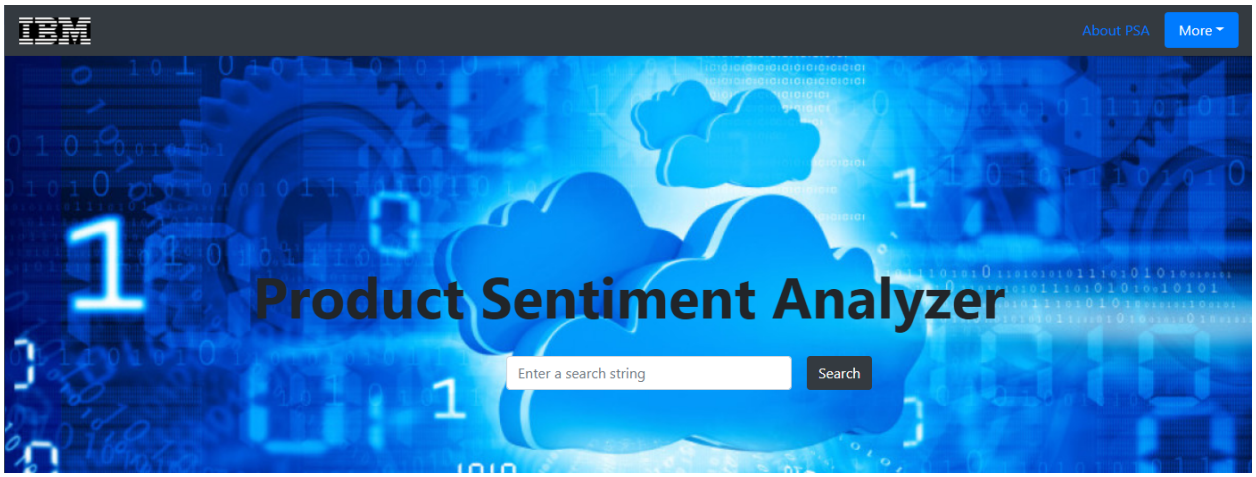


Step 11

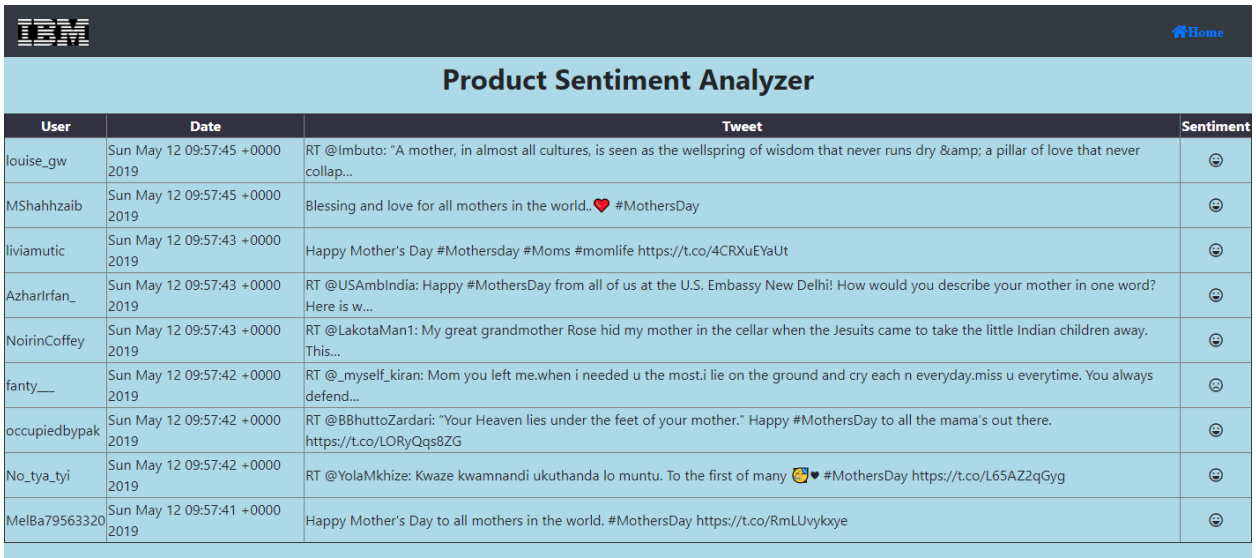
Access your application.

You can access your application on the domain name which we setup on Page 7

Example - https://anunay.eu-gb.mybluemix.net



Key in a hash tag like #MothersDay and click on 'Search' button. You should see a sentiment icon depending on the sentiment score returned by Watson NLU for a particular tweet.



User	Date	Tweet	Sentiment
louise_gw	Sun May 12 09:57:45 +0000 2019	RT @Imbuto: "A mother, in almost all cultures, is seen as the wellspring of wisdom that never runs dry & a pillar of love that never collap...	😀
MShahhzaib	Sun May 12 09:57:45 +0000 2019	Blessing and love for all mothers in the world..❤️ #MothersDay	😀
liviamutic	Sun May 12 09:57:43 +0000 2019	Happy Mother's Day #Mothersday #Moms #momlife https://t.co/4CRXuEYaUt	😀
AzharIrfan_	Sun May 12 09:57:43 +0000 2019	RT @USAmbIndia: Happy #MothersDay from all of us at the U.S. Embassy New Delhi! How would you describe your mother in one word? Here is w...	😀
NoirinCoffey	Sun May 12 09:57:43 +0000 2019	RT @LakotaMan1: My great grandmother Rose hid my mother in the cellar when the Jesuits came to take the little Indian children away. This...	😀
fanty___	Sun May 12 09:57:42 +0000 2019	RT @_myself_kiran: Mom you left me.when i needed u the most.i lie on the ground and cry each n everyday.miss u everytime. You always defend...	☹
occupiedbypak	Sun May 12 09:57:42 +0000 2019	RT @BBhuttoZardari: "Your Heaven lies under the feet of your mother." Happy #MothersDay to all the mama's out there. https://t.co/LORyQqs8ZG	😀
No_tya_tyi	Sun May 12 09:57:42 +0000 2019	RT @YolaMkhize: Kwaze kwamnandi ukuthanda lo muntu. To the first of many 👩❤ #MothersDay https://t.co/L65AZ2qGyg	😀
MelBa79563320	Sun May 12 09:57:41 +0000 2019	Happy Mother's Day to all mothers in the world. #MothersDay https://t.co/RmLUvykxye	😀

Credits

This application has been originally developed by

- **Ramchandra Bobhate** **IBM Intern | IBM Cloud and Cognitive Software**
- **Prachi Ayare** **IBM Intern | IBM Cloud and Cognitive Software**

Supervised by

- **Pallavi Singh** **Senior Software Engineer | IBM Cloud and Cognitive Software**

Application modified and documented for IBM Cloud by

- **Anunay Kumar** **DevOps Engineer | IBM Cloud and Cognitive Software**