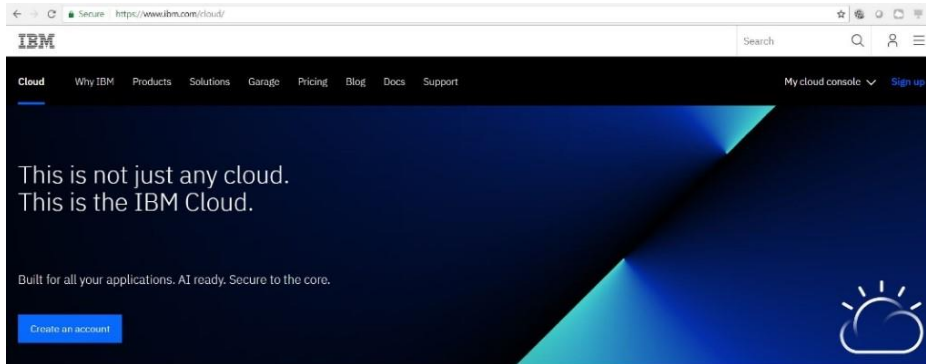


1. Environment Setup

1.1. Create an IBM Cloud Account (Skip if you have one)

- Step (1)

Navigate to www.ibm.com/cloud, Click the Blue “Create Account” Button

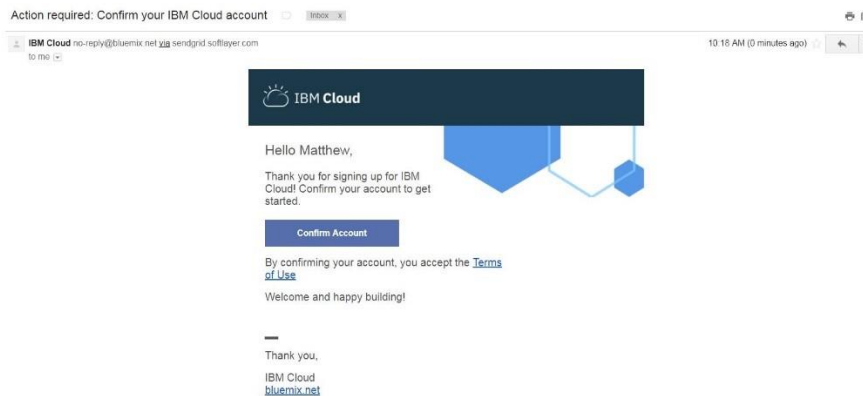


- Step (2)

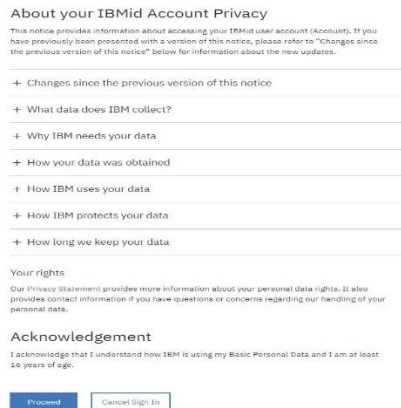
Create your account details and password

A screenshot of the IBM Cloud account creation form. The left side has a blue background with white text providing information about the account, including 'Build on IBM Cloud for free with no time restrictions', 'Guaranteed free development with Lite plans', 'Start on your projects right away', and 'Get a \$200 credit when you upgrade'. The right side is a white form with the following fields: 'Email*' (filled with 'MrManager@huth.co'), 'First Name*' (filled with 'Michael'), 'Last Name*' (filled with 'Bluth'), 'Country or Region*' (a dropdown menu showing 'United States'), and 'Password*' (filled with '\$\$\$inBarana_Stand7'). There are green checkmarks next to the Email, First Name, Last Name, and Password fields. At the bottom, there is a checkbox for 'IBM may use my contact data to keep me informed of products, services and offerings:' which is checked, and a link to 'Already have an IBM Cloud account? Log in'.

You will receive an Account Confirmation Email at the address you provided. Click the blue “Confirm Account” button within the email.



You will immediately be provided with a copy of the IBMid Privacy Policy. Read the policy, then click “Proceed”



Write down your organization information:

Table 1:

Organization:	
Space:	

1.2. Install IBM Bluemix CLI

IBM Cloud CLI provides the command line interface to manage applications, containers, infrastructures, services and other resources in IBM Cloud.

https://console-dal10.ibm.com/docs/cli/reference/bluemix_cli/get_started.html#getting-started

- For Mac and Linux, run the following command:

```
curl -sL https://ibm.biz/ibt-installer | bash
```

- For Windows 10, run the following command as an administrator:

```
Set-ExecutionPolicy Unrestricted; iex(New-Object  
Net.WebClient).DownloadString('http://ibm.biz/ibt-win-installer')
```

1.3. Create a Kubernetes Instance on IBM Cloud

To create a free cluster:

1. From the [IBM Cloud Catalog](#) from **Containers** category, click **Containers in Kubernetes Clusters**.
2. Read up on clusters, then click **Create**. Enter a **Cluster Name**. The default cluster type is free. Next time, you can create a standard cluster and define additional customizations, like the number of worker nodes. The cluster will be deleted after 30 days on the lite account.
3. Click **Create Cluster**. The details for the cluster open, but the worker node in the cluster takes about 30 minutes to provision. You can see the status of the worker node in the **Worker nodes** tab. When the status reaches Ready, your worker node is ready to be used.

References:

https://console.ibm.com/docs/containers/container_index.html#container_index

1.4. Install Node.js

Install nodejs from <https://nodejs.org/en/download/> which also installs npm.

(Please install version 8.12.0)

You can verify the versions of the required or pre-installed software by running the following commands and ensuring that you have the following versions (or higher).

1.5. Install API Connect CLI

Loopback CLI tool: Install loopback command-line interface (CLI) tool using command “npm install -g loopback-cli”.

Install IBM API Connect v5 developer toolkit: IBM API Connect is an end-to-end API management solution that uses Loopback to create APIs and provides integrated build and deployment tools. Install IBM API Connect v5 developer toolkit using “npm install -g apiconnect”.

You can verify the versions of the required or pre-installed software by running the following commands and ensuring that you have the following versions (or higher).

```
C:\Users\SaiGorti>apic --version  
API Connect: v5.0.8.4-iFix (apiconnect: v2.8.39)
```

1.6. Install IBM CLOUD CLI

IBM Cloud CLI provides the command line interface to manage applications, containers, infrastructures, services and other resources in IBM Cloud.

Please go this link https://console-da10.bluemix.net/docs/cli/reference/bluemix_cli/get_started.html#getting-started

Run the install command:

- For Mac and Linux, run the following command:

```
curl -sL https://ibm.biz/ibt-installer | bash
```

- For Windows 10, run the following command as an administrator: (Right-click the Windows PowerShell or command line, and select **Run as administrator**)

```
Set-ExecutionPolicy Unrestricted; iex(New-Object  
Net.WebClient).DownloadString('http://ibm.biz/ibt-win-installer')
```

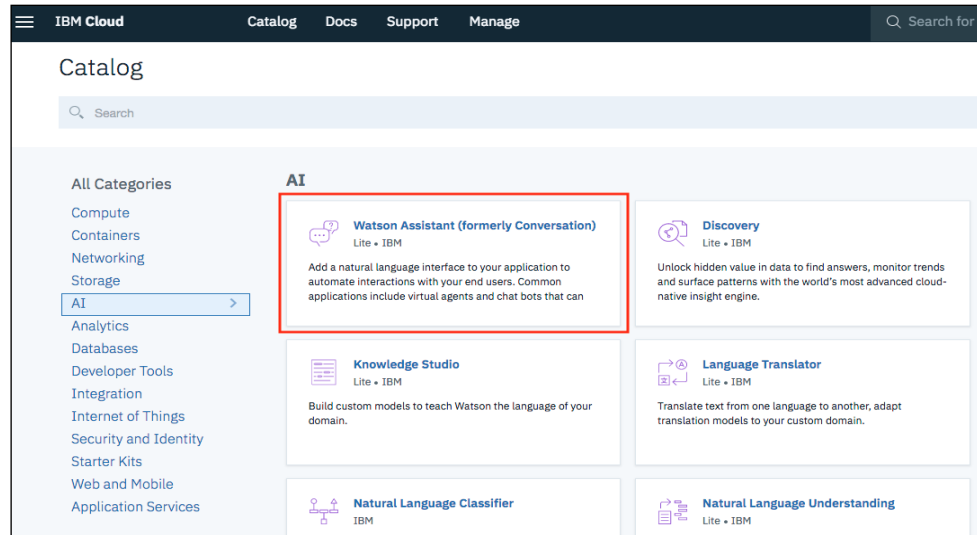
1.7. Install Kubernetes CLI

Use the Kubernetes command-line tool, kubectl, to deploy and manage applications on Kubernetes. Using kubectl, you can inspect cluster resources; create, delete, and update components; and look at your new cluster and bring up example apps.

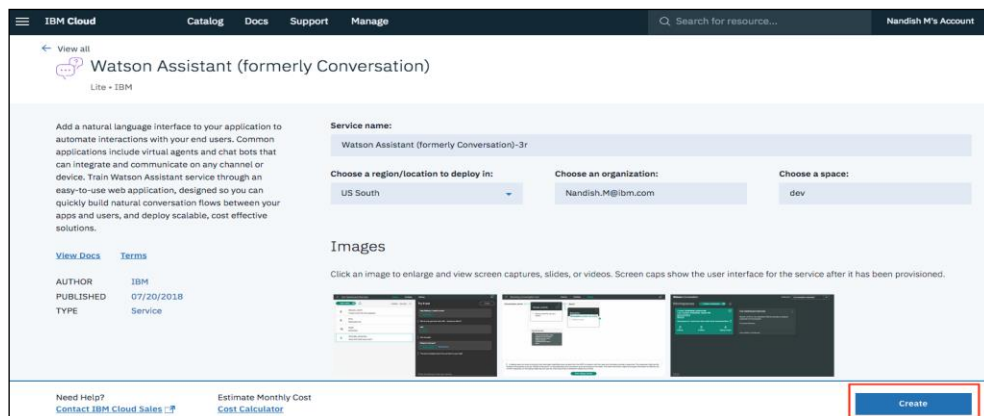
<https://kubernetes.io/docs/tasks/tools/install-kubectl/>

1.8. Create a Watson Assistance service

- Create Watson Assistant service
Navigate to 'Catalog' section in IBM Cloud.
Select 'Watson Assistant' in 'AI' Category (as shown in image below).



Click 'Create'



- Create a workspace:

Once Watson assistant service is created, you will be able to see this screen.

Get started by launching the tool. Plan: Lite [Upgrade](#)

[Launch tool](#) [Getting started tutorial](#) [API reference](#)

Credentials Show Credentials

Url:

Username:

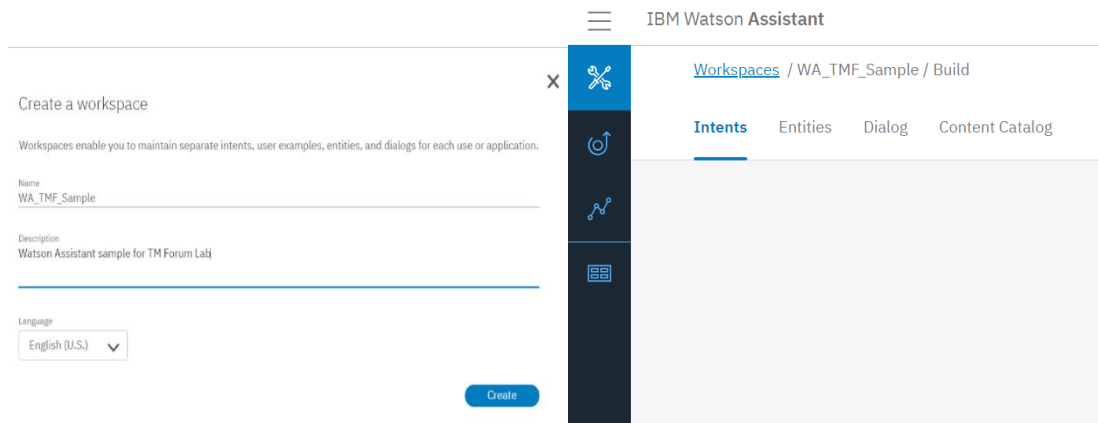
Password:

Click "Launch tool" and workspaces tab to create new workspaces. Click "Create" to create a workspace and provide name and description as below.

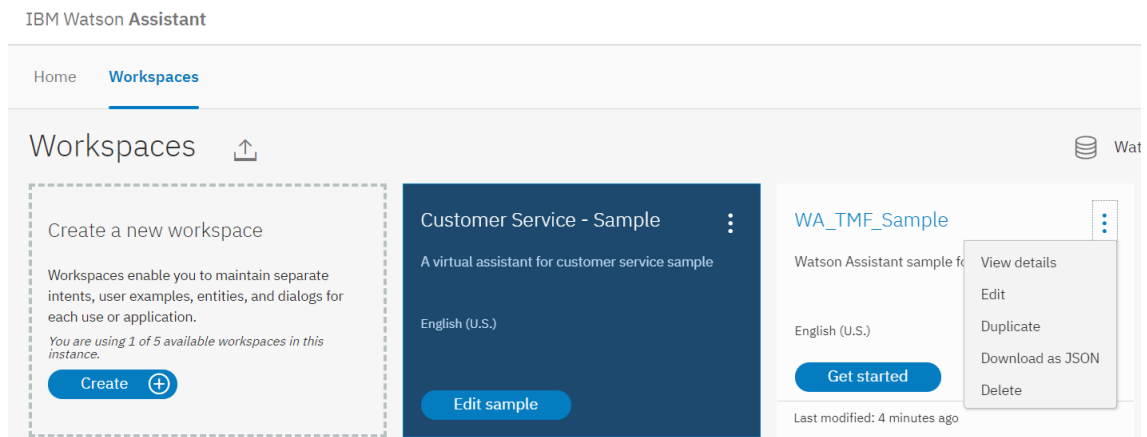
Name: WA_TMF_Sample

Description: Watson Assistant sample for TM Forum Lab

After the workspace is created, click “Back to workspaces” from the menu on left side.



Click “View details” of your workspace to see the “Workspace_ID”



- Get the Service Credentials:

Please make a note of username and password of the Watson assistant service and workspace id of the workspace created.

Table 2:

Username:	
Password:	
Workspace ID:	

1.9. Create APIC instance

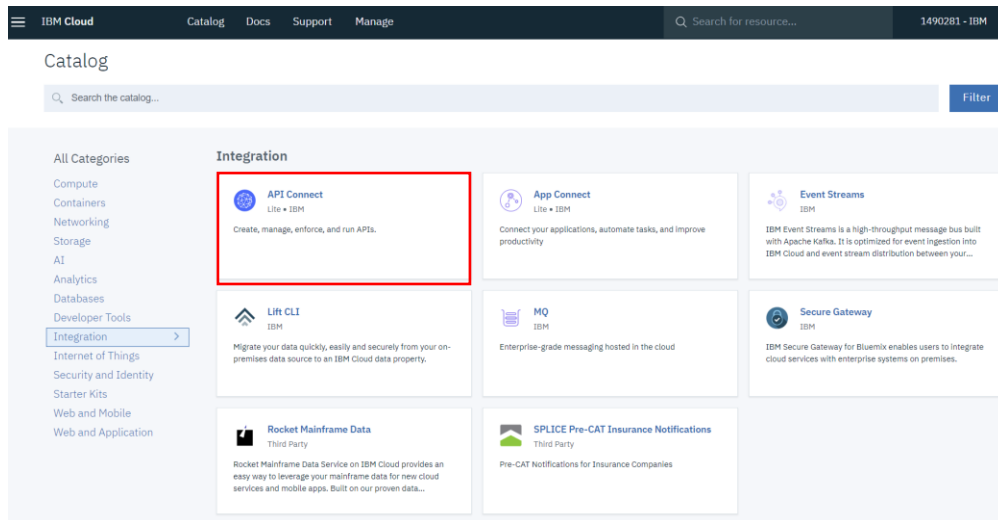
- Step (1)

Within the IBM Cloud Dashboard, navigate to the Catalog using the “Catalog” Button in the upper toolbar



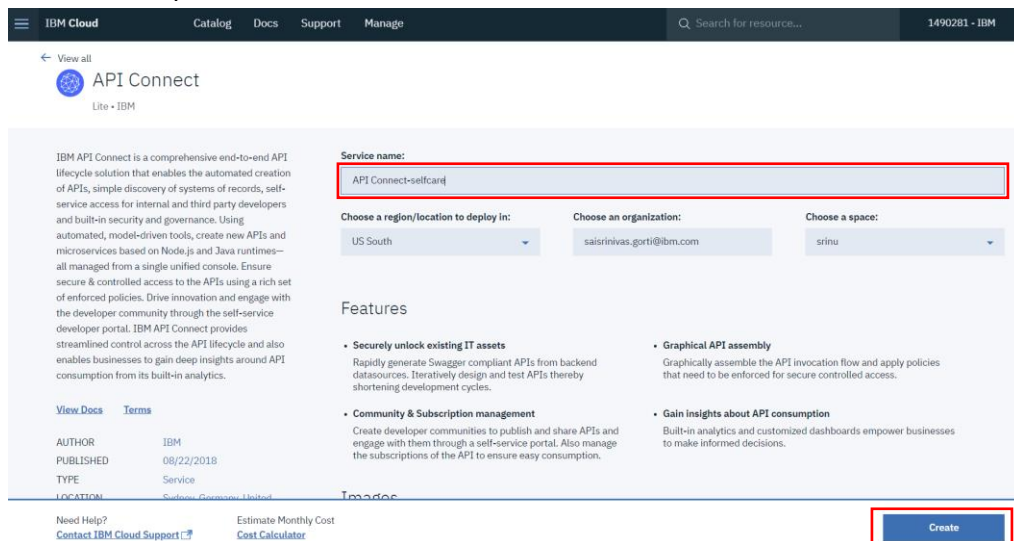
- **Step (2)**

Once in the Catalog, Search for “**API Connect**” and click the Description Card. Alternatively, click the “**Integration**” Category in the Left-hand filter menu and look for “**API Connect**” as shown.



- **Step (3)**

Give your API Connect service name and select the region, organization and space from the dropdown lists to create API Connect service.



- **Step (4)**

You will then be redirected to the IBM Cloud Dashboard. Your API Connect Service will appear under the “Cloud Foundry Services” Header.