

LAB 1: Create your IBM Cloud account and Provision your Database instance

The hands-on labs for this course require an environment for working with a relational database. To get you up and running quickly we will do so on the Cloud so you don't have to worry about downloading or installing anything, rather, simply access your database from your web browser. IBM Cloud provides a large number of Data and Analytics services, including IBM Db2, a next generation SQL database. And best of all you can create a Lite account on IBM Cloud and provision an instance of Db2 (Lite Plan) at no charge, and without providing any credit card.

You will complete this Lab in three parts:

- I. Create an IBM Cloud Lite account
- II. Provision an instance of IBM Db2 Lite plan
- III. Note down credentials to access your database instance

Part I: Create an IBM Cloud Lite account

First let us introduce you to IBM Cloud (formerly Bluemix). IBM Cloud is IBM's innovative cloud computing platform which combines platform as a service (PaaS) with infrastructure as a service (IaaS). It includes a rich catalog of cloud services that can be easily integrated with PaaS and IaaS to build business applications rapidly. It lets you quickly create, deploy, and manage your applications in the cloud. You don't have to deal with any of the underlying infrastructure. And you don't have to deal with the hosting and the managing of your cloud-based applications. You can use the tools and languages of your choice. IBM Cloud comes with a catalog full of awesome services, or APIs, from IBM and from third parties that you can use in your applications. You can scale your applications with literally a couple of clicks.

Please follow the steps given below to create an IBM Cloud account.

1. Sign up for IBM Cloud at: http://cocl.us/IBM_CLOUD_PROMO_COURSERA_SQL

Note: If you already have an IBM Cloud account (perhaps you created it for another course), you can skip this step and simply log in. If your older IBM Cloud account trial has expired and is asking for a credit card to upgrade, you can instead create a new IBM Cloud account with a different email address.

← → ↻ Secure | https://console.bluemix.net/registration/?cm_mmc=Email_Newsletter_-_Developer_Ed+Tech_-_WW_WW...

IBM Cloud

Sign up for an IBMid and create your IBM Cloud account

Build on IBM Cloud for free with no time restrictions

Guaranteed free development with Lite plans
Develop worry-free and at no cost with cap based Lite plan services for as long as you like.

Start on your projects right away
Skip entering your credit card info and get working in just a few short steps.

Get \$200 to do more on our platform.
Use the credit to try new services or scale your projects. Offer is available for 1 month after upgrade, for platform services only.

Ready to get started? Sign up today!

Already have an IBM Cloud account? [Log in](#)

Email* ✓
sql@coursera.org

First Name* ✓
Rav

Last Name* ✓
Ahuja

Company ✓
IBM

Country or Region*
Canada ▼

Password*
.....

*Password must contain 8-31 characters with at least one upper-case, one lower-case, one number, and one special character (- _ . @)

Keep me informed of products, services, and offerings from IBM companies worldwide.

☐ By email

By clicking Create Account, I accept the [IBM Cloud privacy policy](#) and [IBM Cloud terms](#).

Create Account

2. As part of the sign-up process you will receive an email in your inbox. You will need to click on the link in this email to **verify your email** and activate your account.
3. Log-in to IBM Cloud by going to the link in step 1.

Part II: Provision an instance of IBM Db2 Lite plan

Now let us introduce you to Db2 on Cloud. IBM Db2 is a next generation SQL database provisioned for you in the cloud. You can use Db2 on Cloud just as you would use any database software (RDBMS), but without the overhead and expense of hardware setup or software installation and maintenance. Among the service plans offered for Db2 on IBM Cloud is the Lite plan, which is free to use. You can use your database instance to store relational data, analyze data using built-in SQL editor, or by connecting your own apps.

Note that IBM Cloud also provides other variants of Db2 such as Db2 Hosted and Db2 Warehouse on Cloud, which is often referred to in this course. However for the labs in this course we will utilize the Db2 service since it comes with a Lite plan which is free to use.

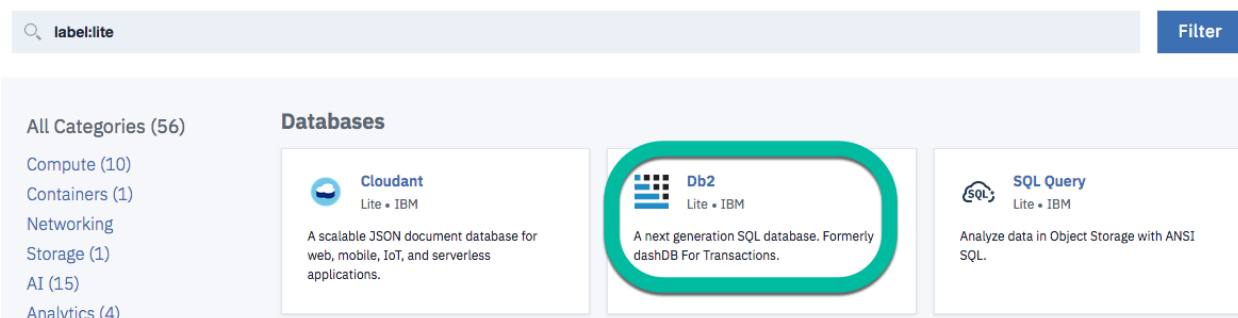
Please follow the steps given below to provision an instance of a Db2 on IBM Cloud.

1. Ensure you are logged in to IBM Cloud and go to:

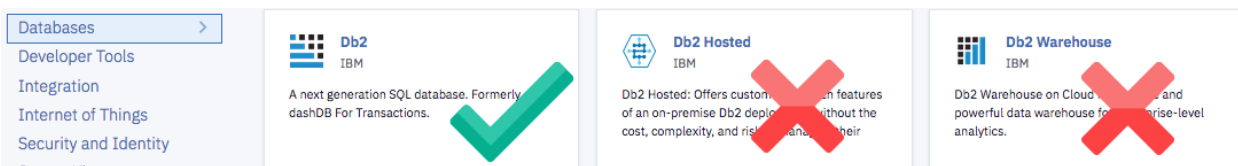
<https://console.bluemix.net/catalog/services/db2>

Note: Alternatively you can click on the **Catalog** menu item, scroll down to the section for **Databases**, and click on the tile for **Db2** service.

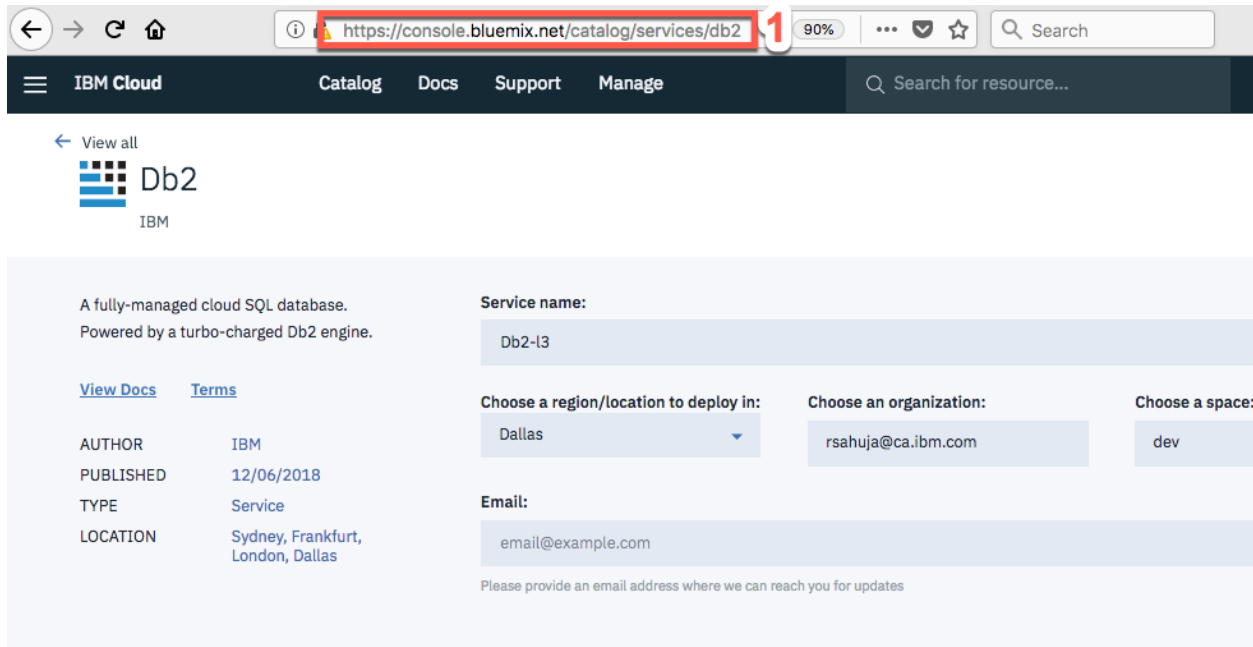
Catalog



[Make sure you choose “Db2”. Do NOT choose “Db2 Warehouse” or “Db2 Hosted” or “SQL Query”.]



Note: Depending on the Country of your IBM Cloud account a region/location to deploy will be pre-selected. For example if you are in the US, the default Datacenter location will be Dallas. Users from UK will see London and so on. It is best to go with the default location.



← View all

Db2
IBM

A fully-managed cloud SQL database.
Powered by a turbo-charged Db2 engine.

[View Docs](#) [Terms](#)

AUTHOR	IBM
PUBLISHED	12/06/2018
TYPE	Service
LOCATION	Sydney, Frankfurt, London, Dallas

Service name:
Db2-l3

Choose a region/location to deploy in:
Dallas

Choose an organization:
rsahuja@ca.ibm.com

Choose a space:
dev

Email:
email@example.com

Please provide an email address where we can reach you for updates

2. Scroll down to Pricing Plans and **select the Lite plan** (it's a free plan and does not require credit card).

3. Then click on the **Create** button towards the bottom right of the page

It will spin for a few seconds (typically less than 30s) and then you should see a Service Created message indicating that your instance of Db2 was created successfully.

Pricing Plans

Monthly prices shown are for country or region: [United States](#)

Select a plan below in order to begin creating your instance.

PLAN	FEATURES	PRICING
<div>✓ 2</div> <div>Lite</div>	100 MB of data storage 5 simultaneous connections Shared multitenant system	Free

The Free plan provides a free Db2 service for development and evaluation. The plan has a set amount of limitations as shown. You can continue using the free plan for as long as needed, however, users are asked to re-extend their free account every 30 days by email. If you do not re-extend, your free account is cleaned out a further 60 days later. This helps provide free resources for everyone.

Lite plan services are deleted after 30 days of inactivity.

Monthly Cost
[View details](#)

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Create

Part III: Create credentials to access your database instance

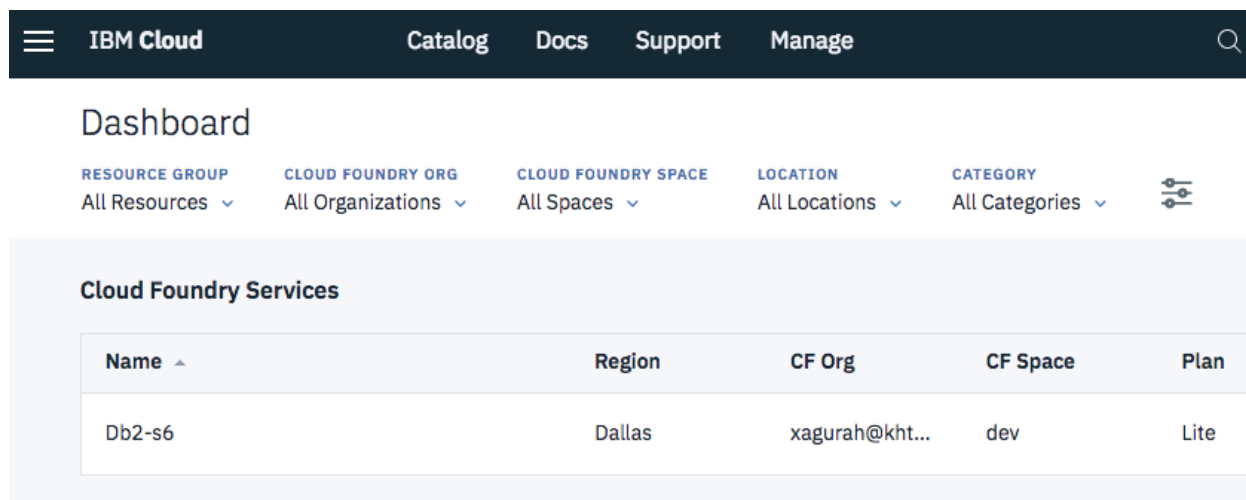
These credentials will be required to connect from Jupyter notebooks for labs and assignment in the last two weeks of the course.

After your database instance has been provisioned you should automatically be taken to the dashboard. If you are doing this step at a later stage, you can go directly to the dashboard:

<https://console.bluemix.net/dashboard/apps>

1. Locate and click on your Db2 service listed under Cloud Foundry Services.

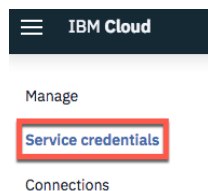
(NOTE: In the example below the service is called “Db2-s6” but your Db2 service may have a different letters/numbers in the suffix e.g. “Db2-xx”)



The screenshot shows the IBM Cloud Dashboard. At the top is a navigation bar with 'IBM Cloud', 'Catalog', 'Docs', 'Support', and 'Manage'. Below this is a 'Dashboard' section with filters for 'RESOURCE GROUP' (All Resources), 'CLOUD FOUNDRY ORG' (All Organizations), 'CLOUD FOUNDRY SPACE' (All Spaces), 'LOCATION' (All Locations), and 'CATEGORY' (All Categories). The main content area is titled 'Cloud Foundry Services' and contains a table with the following data:

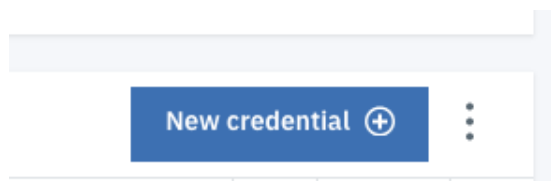
Name	Region	CF Org	CF Space	Plan
Db2-s6	Dallas	xagurah@kht...	dev	Lite

2. Click on **Service Credentials** in the left menu



The screenshot shows the left sidebar of the IBM Cloud console. It has a dark header with 'IBM Cloud' and a hamburger menu icon. Below the header are three menu items: 'Manage', 'Service credentials' (which is highlighted with a red box), and 'Connections'.

3. Click on the button to create **New credentials**.



The screenshot shows a close-up of a button labeled 'New credential' with a plus icon in a circle. To the right of the button is a vertical ellipsis (three dots) indicating a menu.

In the prompt that comes up click the “Add” button in the bottom right:

Add new credential ×

Name:

Service credentials-2

Add Inline Configuration Parameters (Optional): ⓘ

Provide service-specific configuration parameters in a valid JSON object

Choose File...

Cancel Add

4. Check the box to **View credentials**

5. Copy and save the credentials making a note of the following:

- **port** is the database port
- **db** is the database name
- **host** is the hostname of the database instance
- **username** is the username you'll use to connect
- **password** is the password you'll use to connect (you may need to scroll down to see the password)
- **URI** (you will need this for Jupyter notebooks when using SQL Magic)

Secure | https://console.bluemix.net/services/dashdb-for-transactions/7bcad0db-f1c8-4861-b7af-44612fee141e?panelid=cre...

IBM Cloud Catalog Docs Support Manage

Manage

Service credentials 2

Connections

1 Data & Analytics / Db2-50

Location: US South Org: rsahuja@ca.ibm.com Space: dev

Service credentials

Credentials are provided in JSON format. The JSON snippet lists credentials, such as the API key and secret, as well as connection information for the service. [View More](#)

Service credentials 3 New credential

10 Items per page | 1-1 of 1 items 1 of 1 pages 1

<input type="checkbox"/>	KEY NAME	DATE CREATED	ACTIONS
<input type="checkbox"/>	Credentials-1	May 1, 2018 - 11:50:32	4 View credentials

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```
{
  "port": 50000,
  "db": "BLUDB",
  "username": "qcm54853",
  "sslConnection": "jdbc:db2://dashdb-txn-sbox-yp-dal09-04.services.dal.bluemix.net:50001/BLUDB:sslConnection=true;",
  "host": "dashdb-txn-sbox-yp-dal09-04.service"
```

Good luck!