

# Lab: Create Db2 service instance and Get started with the Db2 console

**Estimated time needed:** 15 minutes

From now on, 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.

## Objectives

After completing this lab, you will be able to:

- Use IBM cloud account to create and use resources
- Create an instance of a Db2 service
- Locate and explore the Db2 console

## Pre-requisites

You will need an IBM Cloud account to do this lab. If you have not created one already, click on this [link](#) and follow the instructions to create an IBM Cloud account.

### Task 1: Create an instance of IBM Db2 Lite plan

Now let us introduce you to Db2 on IBM Cloud. IBM Db2 is a next generation SQL database provisioned for you in the cloud. You can use Db2 on IBM 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 a 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 also 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 Db2 on IBM Cloud.

1. Login to [IBM Cloud](#)



2. Go to [the DB2 Services page on IBM Catalog](#).

The screenshot shows the IBM Cloud Catalog interface. At the top, there's a navigation bar with "IBM Cloud", a search bar, and user information. Below the navigation is a search bar labeled "Search the catalog...". The main area displays a grid of service cards. One card for "Db2" is highlighted with a red border. The "Db2" card has the following details:

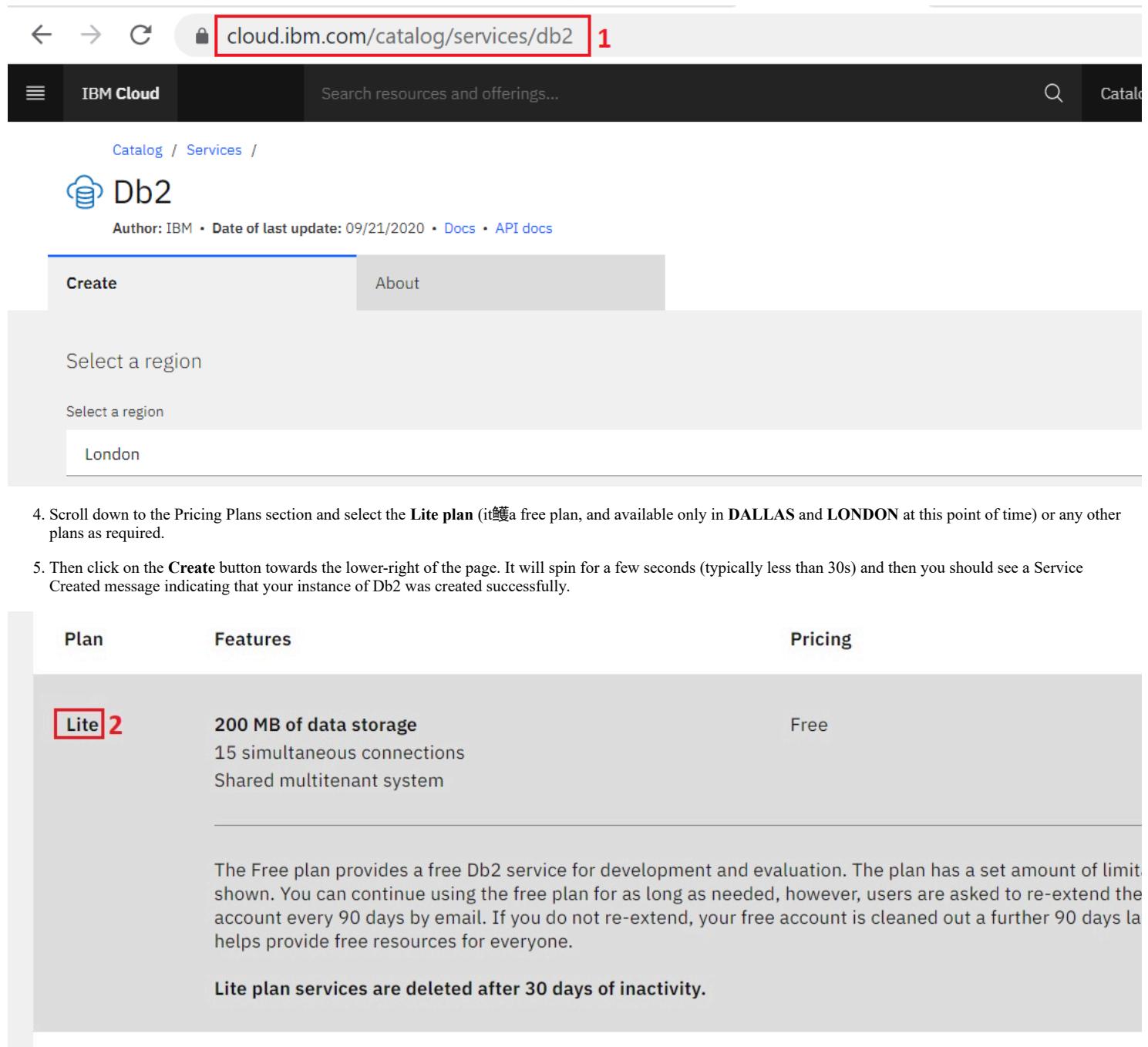
- Icon:** A blue cloud icon with a key symbol inside.
- Name:** Db2
- Provider:** By IBM
- Description:** A fully managed, highly-performant relational data store running the enterprise-class Db2 database engine.
- Plan:** Lite • Free • EU Supported • HIPAA Enabled • IAM-enabled • IBM supported

The other visible service cards include:

- DataStage**: By IBM. Description: Create ETL and data pipeline services for real-time, micro-batch, and batch data orchestration. Plan: Lite • Free • IAM-enabled • IBM supported.
- Db2 Warehouse**: By IBM. Description: Db2 Warehouse provides powerful data analytics. Plan: HIPAA Enabled.

3. Select a location where you want the service to be hosted.

**Note:** Depending on the Country of your IBM Cloud account, a location to deploy will be pre-selected. For example, if you are in the US, the default region will be Dallas. Users from the UK will see London and so on. Select either **DALLAS** or **LONDON** as the location. Make sure a **Region** is selected as the location, not a **Data center**.



The screenshot shows the IBM Cloud Catalog interface. The URL in the address bar is [cloud.ibm.com/catalog/services/db2](https://cloud.ibm.com/catalog/services/db2). A red box highlights the URL. The page title is "Db2". Below the title, it says "Author: IBM • Date of last update: 09/21/2020 • Docs • API docs". There are two buttons: "Create" (highlighted with a red box) and "About". A dropdown menu "Select a region" is open, showing "London" as the selected option.

4. Scroll down to the Pricing Plans section and select the **Lite plan** (it's a free plan, and available only in **DALLAS** and **LONDON** at this point of time) or any other plans as required.

5. Then click on the **Create** button towards the lower-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.

Plan	Features	Pricing
<b>Lite 2</b>	<b>200 MB of data storage</b> 15 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 limit shown. You can continue using the free plan for as long as needed, however, users are asked to re-extend the account every 90 days by email. If you do not re-extend, your free account is cleaned out a further 90 days later. This helps provide free resources for everyone.

**Lite plan services are deleted after 30 days of inactivity.**

## Task 2: Locate and Explore the Db2 console

Now that you have created your database instance, you need to know how to get to it, explore the console and start working with it.

- **NOTE:** You are not required to compose and run any SQL query on this exercise.
1. To access your database instance, go to your IBM Cloud Resource List (you may need to log into IBM Cloud in the process) directly at: [cloud.ibm.com/resources](https://cloud.ibm.com/resources)
    - **Alternative:** Go to your IBM Cloud account (you may need to login to IBM Cloud in the process) at: [cloud.ibm.com](https://cloud.ibm.com) and click **Resource List**.

The screenshot shows the IBM Cloud dashboard. On the left, there's a sidebar with categories like 'Classic Infrastructure' (Cloud Foundry, Code Engine, Functions, Kubernetes, OpenShift, Satellite, Security and Compliance, VMware, VPC Infrastructure), 'API Management', and 'App Development'. The 'Resource list' section is highlighted with a red box. To the right, there are several cards: 'Explore IBM Cloud Shell' (Getting started, 2 min), 'Get Started with Watson Studio' (Popular, 2 hr), and 'Build a Virtual Private Cloud (VPC)' (Getting started, 7 min). Below these cards is a news section with a blue header.

2. In the Resource list, expand the **Databases** heading and locate and click on your instance of Db2 you provisioned in exercise 2 (the name typically starts with Db2-xx for example Db2-fk, Db2-50, etc.)

A screenshot of the IBM Cloud Resource list table. The columns are: Name, Group, Location, Product, and Status. A Db2 instance named 'Db2-pg' is selected and highlighted with a red box. The table also lists other categories like Storage, AI / Machine Learning, Analytics, Blockchain, and Databases.

	Name	Group	Location	Product	Status
	Storage (1+)				
	AI / Machine Learning (4+)				
	Analytics (0)				
	Blockchain (0)				
	<b>Databases (1)</b>				
	Db2-pg	Default	London	Db2	Active
	Developer tools (0+)				
	Logging and monitoring (0)				
	Migration (0)				
	Integration (0+)				
	Internet of Things (0)				
	Security (0)				

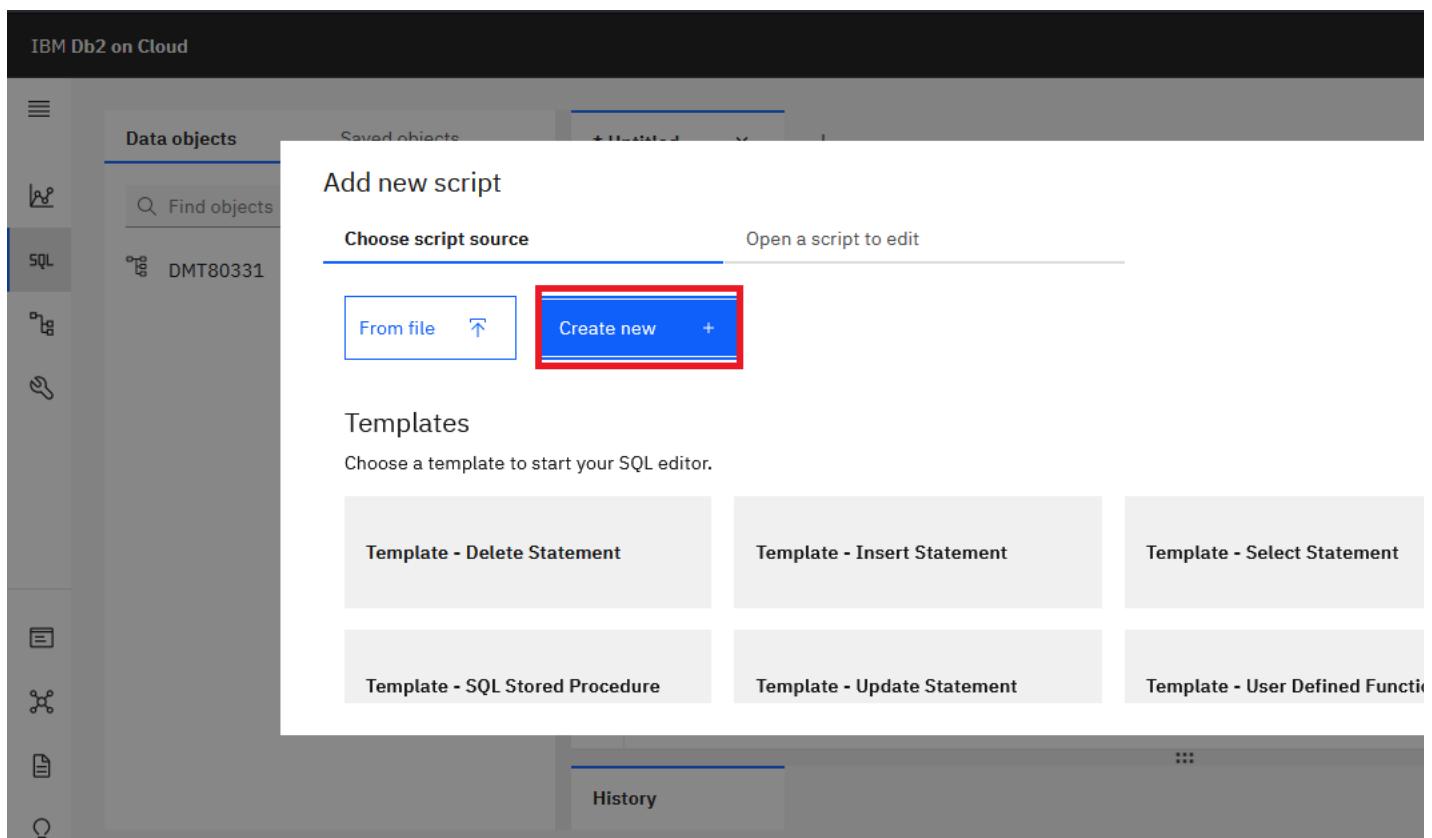
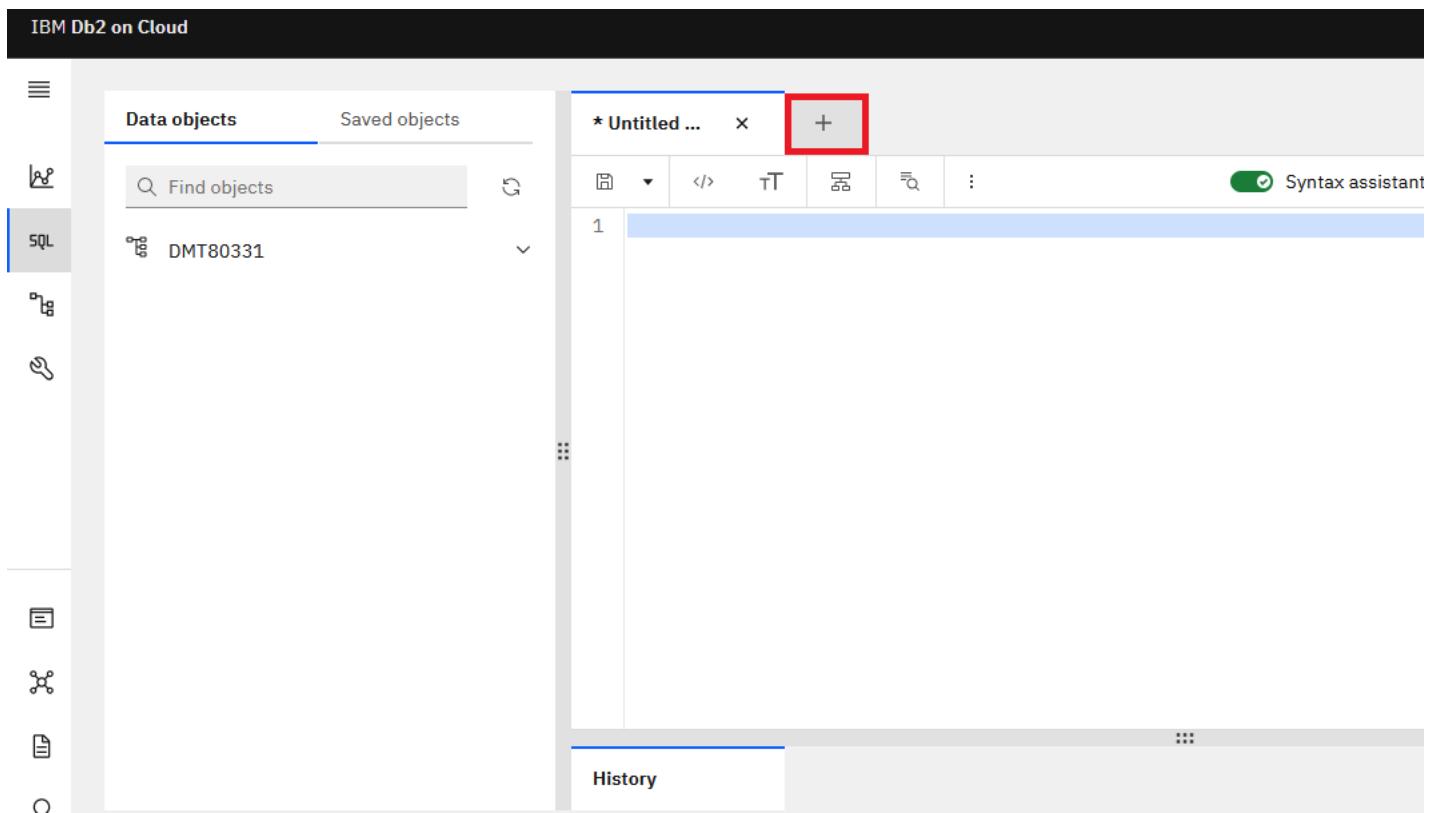
3. Click on the Go to UI button.

The screenshot shows the Db2 Resource list interface. At the top, it displays "Db2-pr" as an Active resource with an "Add tags" button. On the left, a sidebar has "Manage" highlighted with a red box. Below it are links for "Getting started", "Service credentials", and "Connections". The main content area is titled "Getting started" and asks where to find credentials, with a note about selecting "New Credentials" from the "Service Credentials" link. It includes a "Go to UI" button and a "Getting started docs" link.

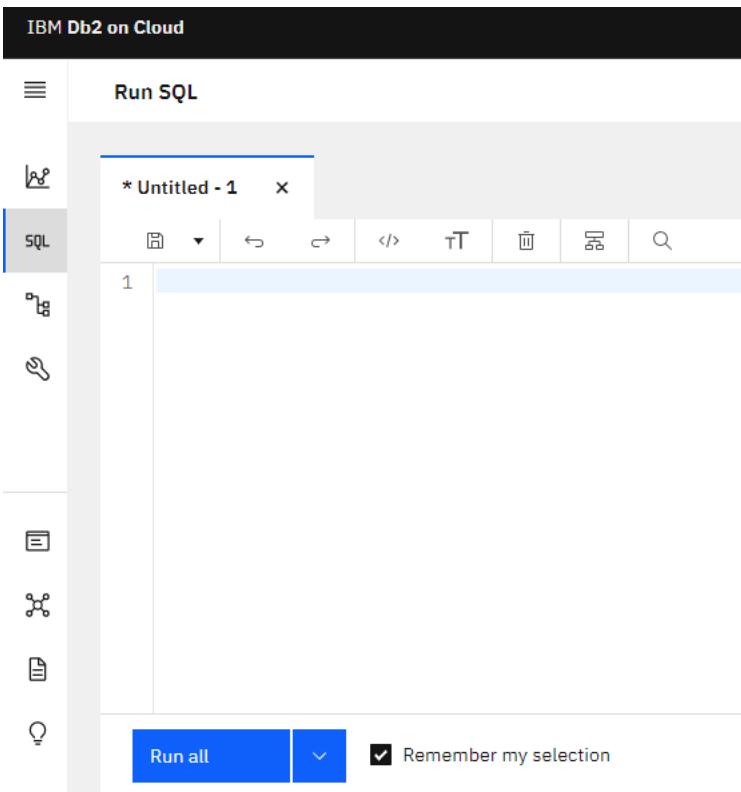
4. The Db2 console will open in a new tab in your web browser. Click on the 3-bar menu icon in the top left corner and then click on **RUN SQL**.

The screenshot shows the Db2 console dashboard. The left sidebar has a 3-bar menu icon highlighted with a red box. Below it are sections for "Dashboard", "SQL" (which has a "Run SQL" button highlighted with a red box), "Data", "Administration", "About", "APIs", and "Documentation". The main content area is titled "Resource usage" and shows a line chart for storage usage over the last hour. The chart indicates a current value of 6% storage usage (12M / 200M) at 14:38, with the usage remaining flat until 15:38.

5. On the next screen click on the + button and then click on **Create new**.



6. The SQL editor will open where you can start typing and running queries.



7. The SQL editor has several areas for performing different tasks.

Script	Date	Status
Untitled - 1	Mar 15, 2023 12:19:58 PM	✓ 1
SELECT * FROM BILLING_TEST		

8. Click on the + icon if you want to add a new script for composing queries and then select **Create new**.

The screenshot shows the IBM Db2 on Cloud interface. At the top, it says "IBM Db2 on Cloud". Below that is a toolbar with icons for file operations and a "Syntax assistant" toggle. A red box highlights the "Add new script" button in the top right corner of the toolbar. The main area is a code editor with a tab labeled "\* Untitled ...". Below the editor is a status bar showing the number 1 and the SQL query: "SELECT \* FROM BILLING\_TEST;".

9. When you are asked in the upcoming labs, compose the appropriate SQL query for each problem and run by clicking **Run all**.
10. When you will run the script, by looking at the History section of the executed queries you will know whether the SQL statements ran successfully or not.

The screenshot shows the History section of the IBM Db2 on Cloud interface. It has tabs for "History" and "Results", with "History" selected. Below is a search bar "Find history". The table lists executed queries with columns: Script, Date, Status, and Runtime. The last two rows, which are the results of the "INSERT" and "SELECT" statements, are highlighted with a red box.

Script	Date	Status	Runtime
Untitled - 1	Mar 14, 2023 6:32:56 PM	✓ 2	0.009 s
INSERT INTO BILLING_TEST VALUES(101,'CLOTHES','INDIA','FASHION','MARCH','2000')		✓	0.005 s
SELECT * FROM BILLING_TEST		✓	0.004 s

11. By clicking on each of the executed queries in the History section, you can see the result of that query. If the query has failed, you can see the error details.

The screenshot shows the Results section of the IBM Db2 on Cloud interface. It has tabs for "History" and "Results", with "Results" selected. Below is a search bar "Filter table". The table displays the results of the executed query, showing one row of data: CUSTOMERID, CATEGORY, COUNTRY, INDUSTRY, MONTH, and BILLED.

CUSTOMERID	CATEGORY	COUNTRY	INDUSTRY	MONTH	BILLED
101	CLOTHES	INDIA	FASHION	MARCH	2000

## Summary

You can now find your way into and around the database instance, and you will use these skills in later labs.

**Congratulations! You have completed this lab, and you are ready for the next topic.**

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