

Hands-on 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,



IBM Cloud

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](#).

IBM Cloud

Search resources and products...

Q

Catalog

Manage

Shreya Khurana's Acco...

?

Q

Search the catalog...

Sell on IBM Cloud

By IBM

Build mission critical web applications that offer high performance with scalability and security.

EU Supported • HIPAA Enabled • IAM-enabled • Service Endpoint Supported • IBM supported

By IBM

PostgreSQL is a powerful, open source object-relational database that is highly customizable.

Satellite Enabled • EU Supported • HIPAA Enabled • IAM-enabled • Service Endpoint Supported • IBM supported

By IBM

Redis is a blazingly fast, in-memory structure store.

Satellite Enabled • EU Supported • HIPAA Enabled • IAM-enabled • Service Endpoint Supported • IBM supported

DataStage

By IBM

Create ETL and data pipeline services for real-time, micro-batch, and batch data orchestration.

Lite • Free • IAM-enabled • IBM supported

Db2

By IBM

A fully managed, highly-performant relational data store running the enterprise-class Db2 database engine.

Lite • Free • EU Supported • HIPAA Enabled • IAM-enabled • IBM supported

Db2 Warehouse

By IBM

Db2 Warehouse on Cloud is a flexible, powerful data warehouse for enterprise analytics.

HIPAA Enabled • IAM-enabled • IBM supported

Data Explorer

By IBM

Visualize and explore your data with a powerful, self-service data exploration tool.

Lite • Free • IAM-enabled • IBM supported

Data Analytics

By IBM

Visualize and explore your data with a powerful, self-service data exploration tool.

Lite • Free • IAM-enabled • IBM supported

Data Lake

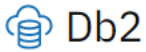
By IBM

Visualize and explore your data with a powerful, self-service data exploration tool.

Lite • Free • IAM-enabled • IBM supported

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**.



Create

About

Select a region

Select a region

London

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

Lite 2

200 MB of data storage
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 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 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
 - **Alternative:** Go to your IBM Cloud account (you may need to login to IBM Cloud in the process) at: cloud.ibm.com and click **Resource List**.

The screenshot shows the IBM Cloud dashboard. On the left, a sidebar contains a 'Resource list' menu item, which is highlighted with a red box. Below it are various service categories like Classic Infrastructure, Cloud Foundry, Code Engine, Functions, Kubernetes, OpenShift, Satellite, Security and Compliance, VMware, VPC Infrastructure, API Management, and App Development. The main content area displays several 'Getting started' cards for services like IBM Cloud Shell, Watson Studio, Virtual Private Cloud (VPC), and App Connect. At the bottom, there are links for 'Manage users', 'News' (with a 'View all' link), and 'Planned maintenance'.

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.)

The screenshot shows the 'Resource list' table with the 'Databases' section expanded. The table has columns: Name, Group, Location, Product, Status, and Tags. The 'Databases' section is expanded, showing a list of database instances. One instance, 'Db2-pg', is highlighted with a red box. It is located in the 'Default' group, 'London' location, and is a 'Db2' product. Its status is 'Active'.

Name	Group	Location	Product	Status	Tags
Filter by name or IP address...	Filter by group or org...	Filter...	Filter...	Filter...	Filter...
Storage (1+)					
AI / Machine Learning (4+)					
Analytics (0)					
Blockchain (0)					
Databases (1)					
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.

Manage

Getting started


Service credentials

Connections

Getting started

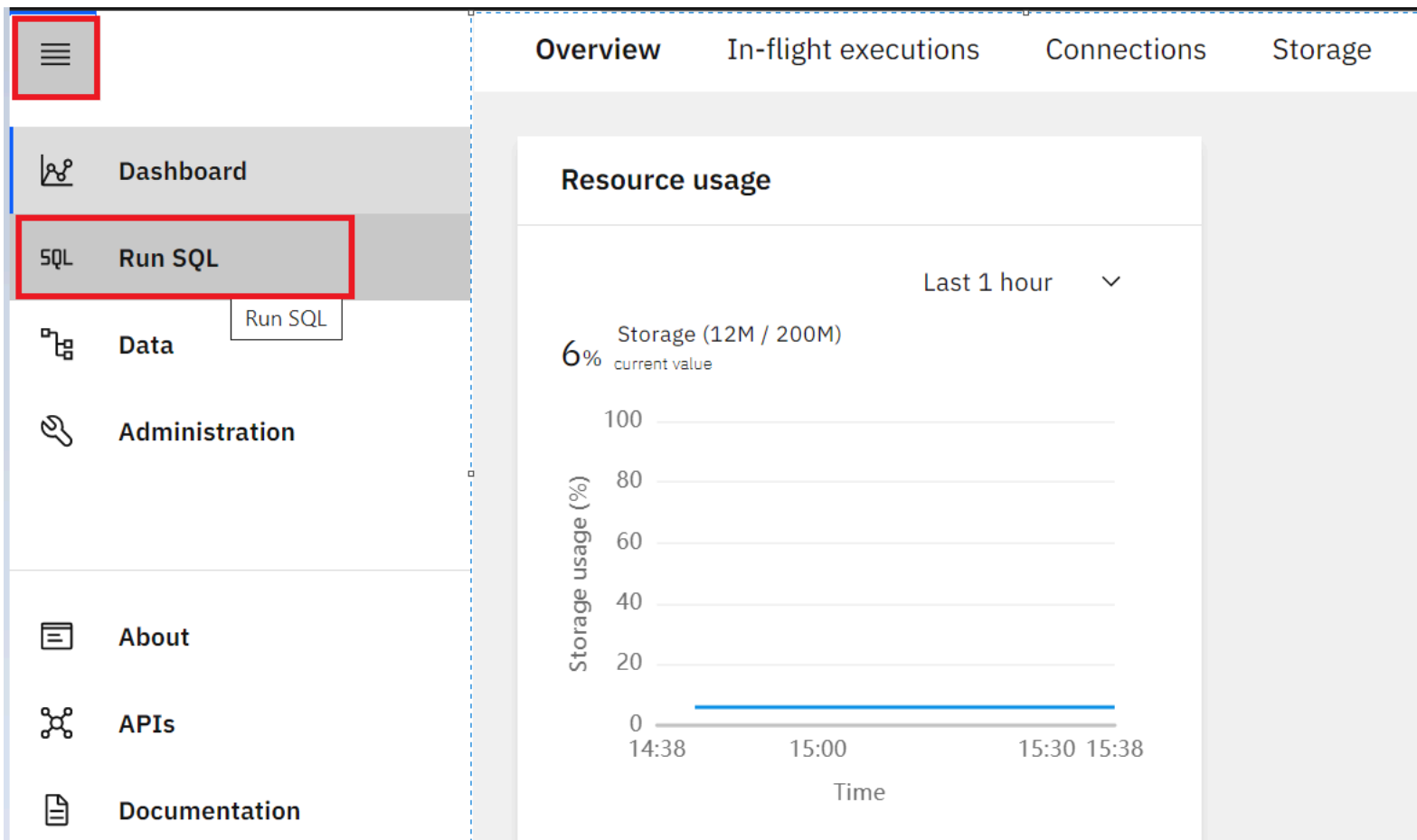
Where can I find my credentials?

Get your username and password by clicking the "Service Credentials" link to the left and selecting "New Credentials".

Go to UI 

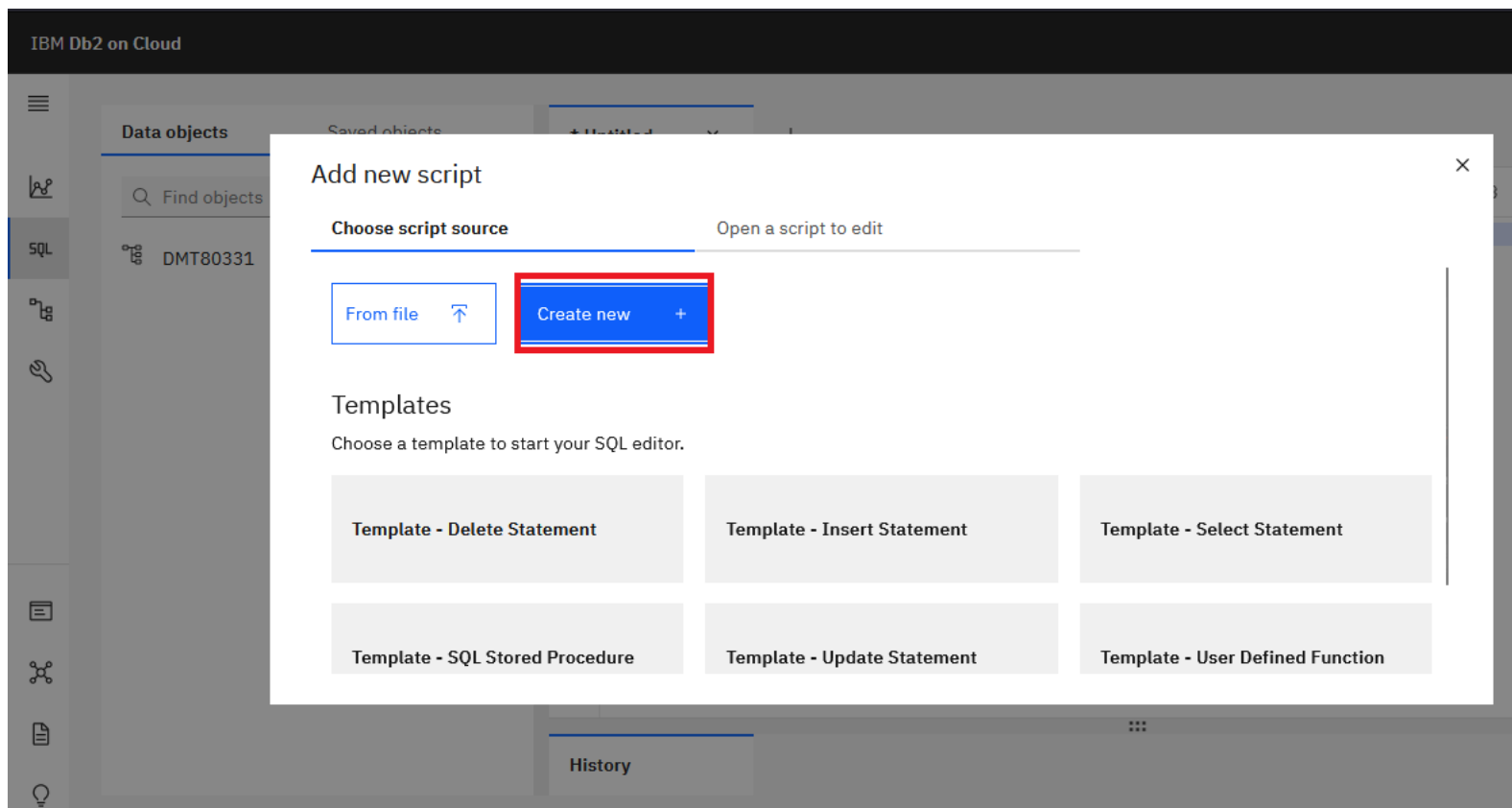
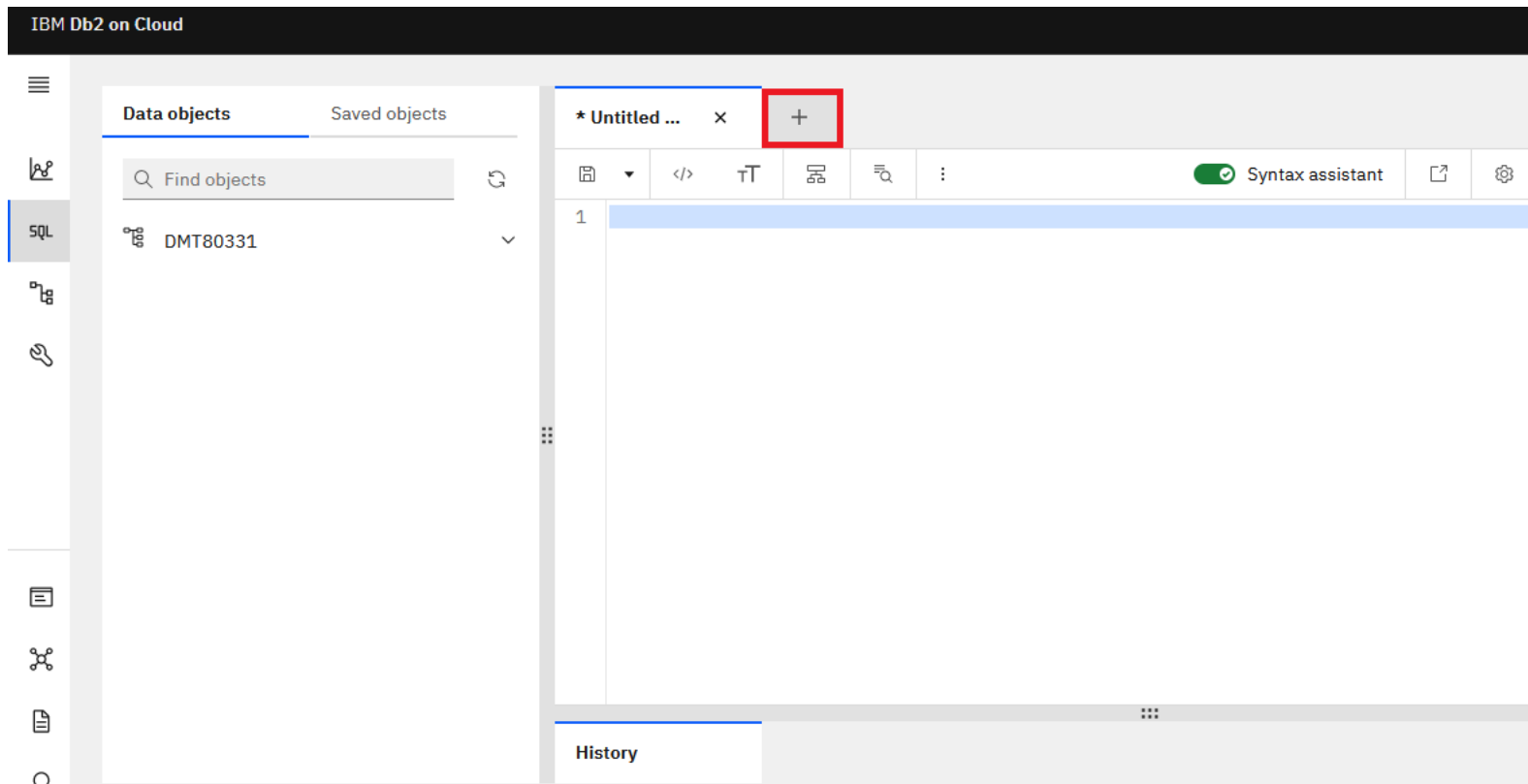
[Getting started docs](#)

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**.

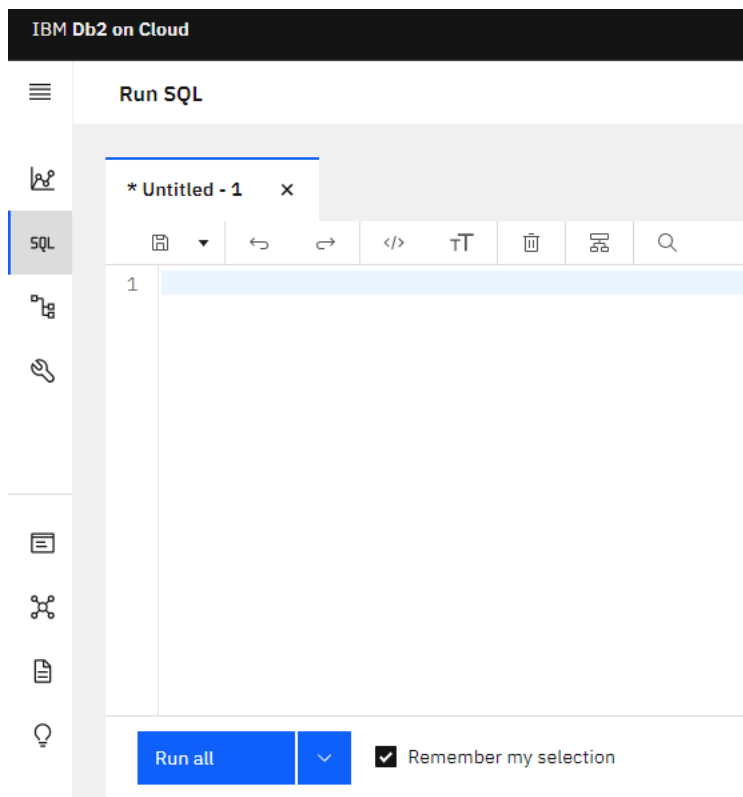


The screenshot displays the Db2 console interface. On the left, a sidebar contains a 3-bar menu icon at the top, followed by 'Dashboard', 'SQL Run SQL' (highlighted with a red box), 'Data', 'Administration', 'About', 'APIs', and 'Documentation'. The main area shows a top navigation bar with 'Overview', 'In-flight executions', 'Connections', and 'Storage'. Below this, a 'Resource usage' section features a line chart titled 'Storage (12M / 200M)' showing 'current value' at 6%. The chart's y-axis is 'Storage usage (%)' ranging from 0 to 100, and the x-axis is 'Time' with markers at 14:38, 15:00, 15:30, and 15:38. A dropdown menu for 'Last 1 hour' is visible.

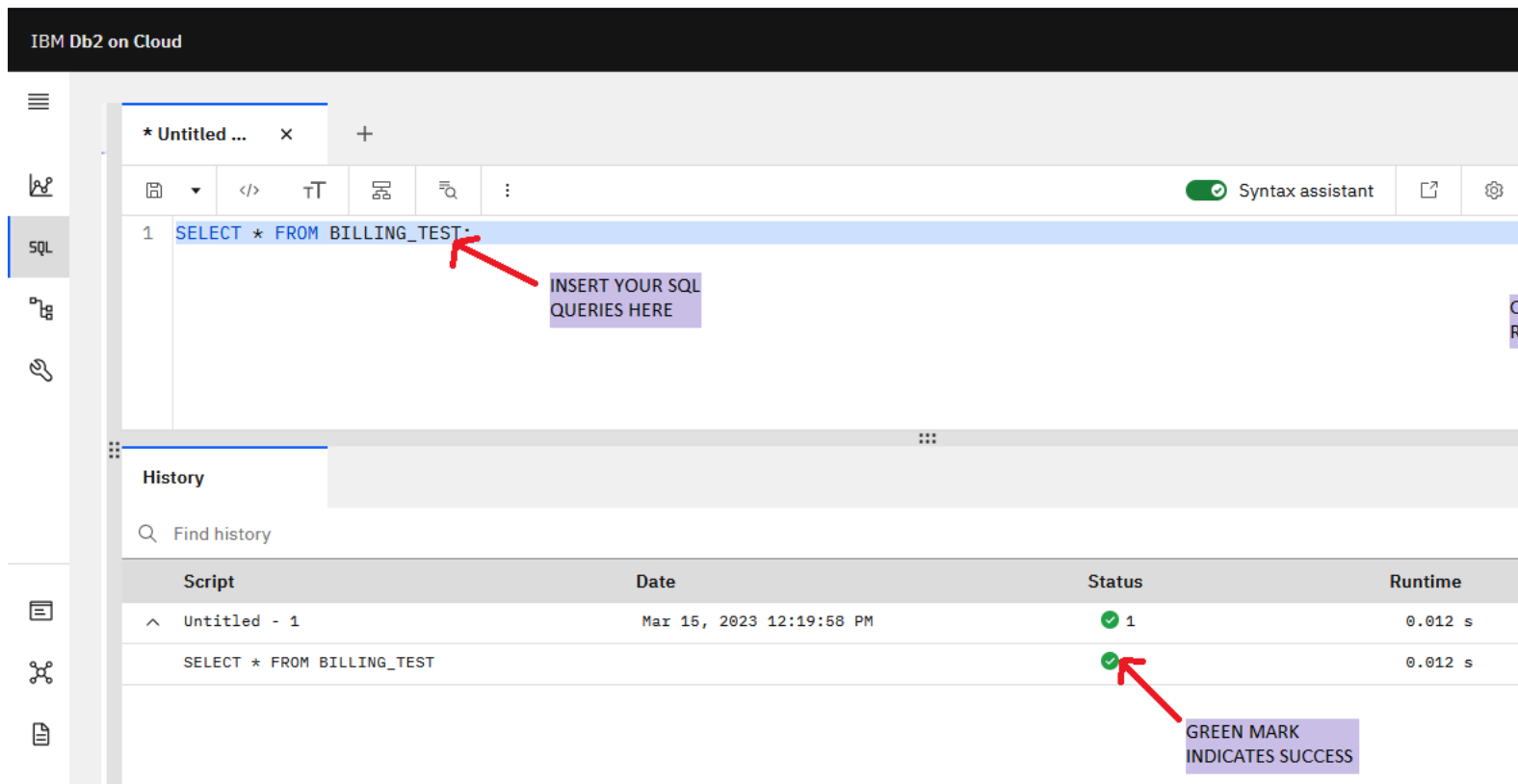
5. On the next screen click on the + button and then click on **Create new**.



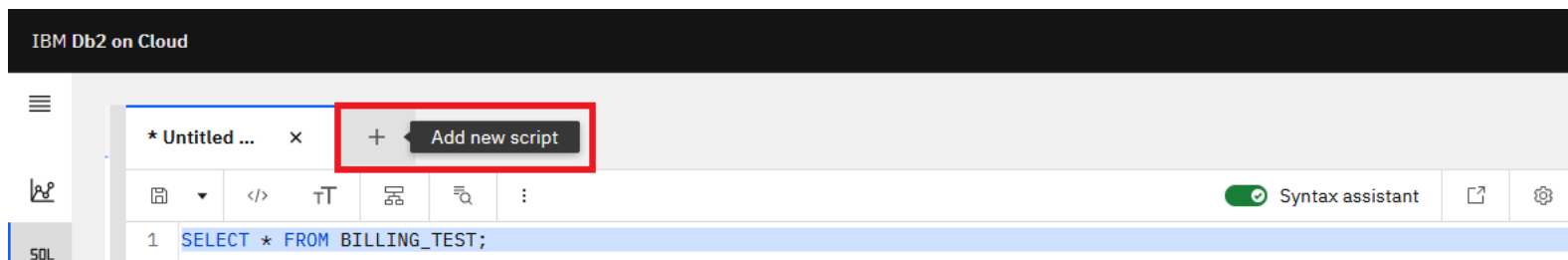
6. The SQL editor will open where you can start typing and running queries.



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



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



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.

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

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.

History		Results			
Result set 1		Details			
Q Filter table		Total:1			
CUSTOMERID	CATEGORY	COUNTRY	INDUSTRY	MONTH	BILLEDAMOUNT
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.

Author(s)

- [Rav Ahuja](#)
- [Sandip Saha Joy](#)

Other Contributor(s)

-

Changelog

Date	Version	Changed by	Change Description
15-03-2023	2.7	Shreya Khurana	Updated screenshots and instructions
16-02-2023	2.6	Shreya Khurana	Updated screenshots
23-08-2022	2.5	Appalabhaktula Hema	Updated instructions
11-05-2022	2.4	Hema	Updated instruction
28-04-2022	2.3	Hema	Updated screenshots
08-07-2021	2.2	Malika	Updated screenshots
23-12-2020	2.1	Steve Ryan	ID Review
07-12-2020	2.0	Sandip Saha Joy	Created revised version from DB0201EN
06-03-2020	1.0	Rav Ahuja	Created initial version

© IBM Corporation 2023. All rights reserved.