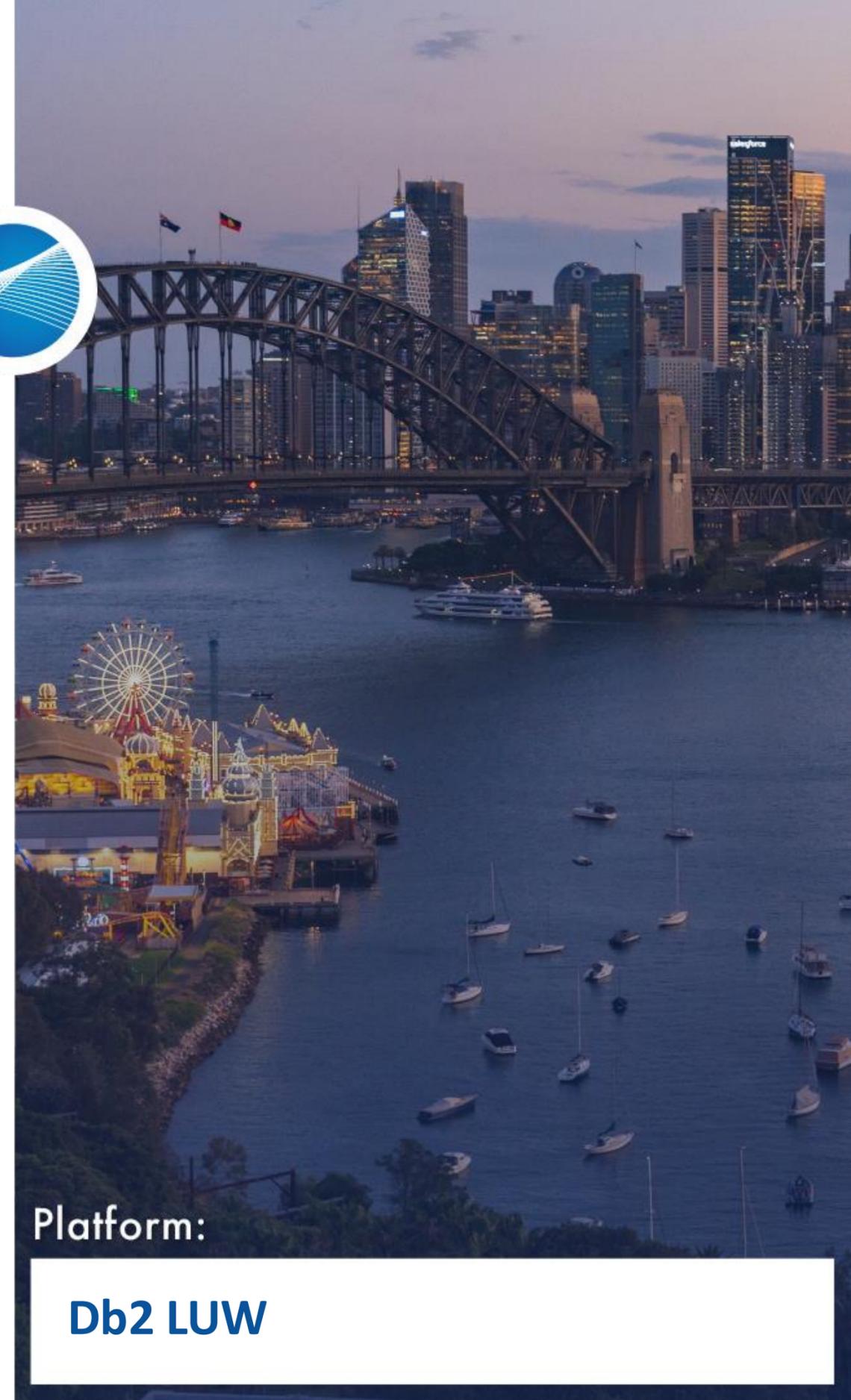# IDUG

2026

Sydney | March 16 - 18

AU Db2 TECH CONFERENCE

IBM Db2 Developer Extension for VS Code

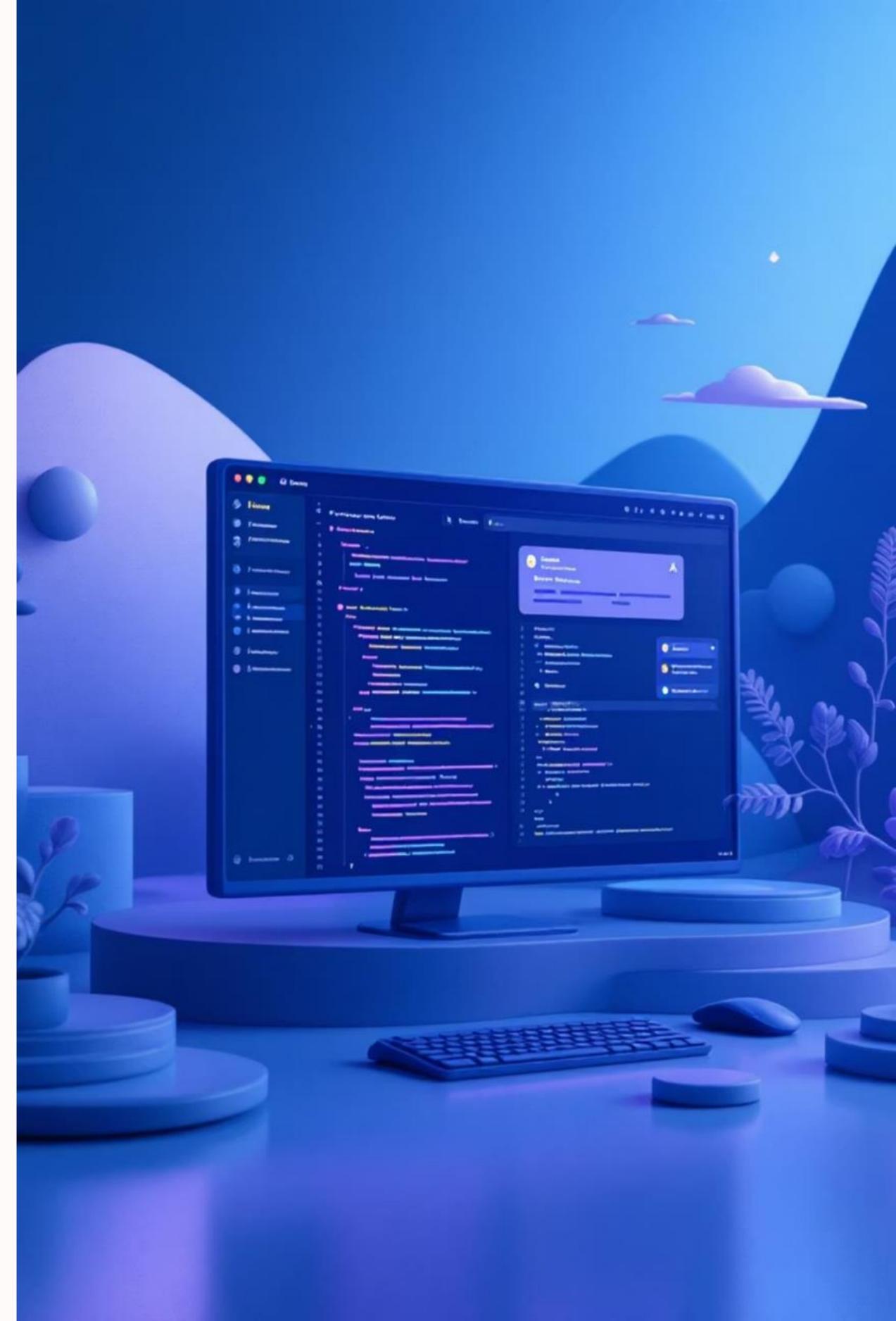Greg Petrossian, *IBM*

Session Code: C12

Platform:

Db2 LUW

IBM Db2 Developer Extension for VS Code

Bringing Database Development into the Modern Era

One tool. One experience. Infinite productivity.

Today's Agenda

Introduction

The Problem: Monday 10:15 AM Scenario

Why Current Workflows Slow Developers Down

The Solution: Db2 Developer Extension for VS Code

Feature Demo

Key Benefits & Workflow Transformation

Closing the Four Critical Gaps

Real Impact: Productivity Gains

Who Benefits Across Data Roles

Roadmap: What's Coming Next

Q&A

IBM Db2 Developer Extension

An all-new, best-in-class development environment for Db2 developers embedded into Visual Studio Code.

Features:

- Syntax checking and highlighting
- Code completion and signature help
- SQL formatting
- Customizable code snippets
- DDL generation
- Manage Db2 connections
- Install and manage Db2 Community Edition database on localhost
- Explore database schemas, tables, views, procedures, and functions with details on database objects
- More coming soon

IBM Db2 / © 2026 IBM Corporation

Production Crisis: When Every Second Counts

- Monday • 10:15 AM
- A production query starts failing.
- Customers are reporting incorrect data.
- The team needs answers quickly — but the tools slow everyone down.

- Launch separate database client
- Hunt for connections credentials
- Configure SSL
- Copy queries between roles
- Export results manually

The Old Way

45 minutes of chaos

1

2

With Db2 Extension

10 minutes to resolution

- Open VS Code (already running)
- Setup local community instance for dev env
- Run saved query from query history
- Compare results instantly
- Fix and deploy

Feature Demos

Watch each capability in action

- Install Extension from Marketplace
- Create Connection:
  - Create Connection through Existing Server
  - Local install with Db2 Community Edition
- One-Click Connect
- Schema Tree, Table View & Generate DDL
- SQL Editor & Multi-Query Execution
- Query History Review
- New SQL File: Suggestions & Snippets
- End of Demo

IBM

Install IBM Db2 Developer Extension

Install the IBM Db2 Developer Extension for VS Code to connect to and work with Db2 databases directly in your editor.

With User id & Pass

With Using SSL

Create connection profile and use it forever

- Enter your connection details for once
- Option to connect your database securely using SSL
- Test and validate connection to make it future ready

This instance will utilize Db2 community edition license. Review information for this connection.

Host

localhost

Port (Internal Docker Port) - Must be between 1 and 65535

50000

Username (max 8 chars, alphanumeric + @#$_, starts with letter or @#$)

db2inst1

Password (Required)

••••

Database Name (max 8 chars, alphanumeric + @#$, starts with letter)

testdb

Creating instance...

Db2 instance creation in progress
This process may take a few minutes.

✓ Environment Setup

◌ Container Runtime Setup

○ Db2 Container Setup

○ Db2 Engine Initialization

○ Database Configuration

○ Schema & Sample Data

○ Verification & Completion

Install locally and connect using Db2 Community Edition

Single click clean, error free setup with clear steps and quick validation.
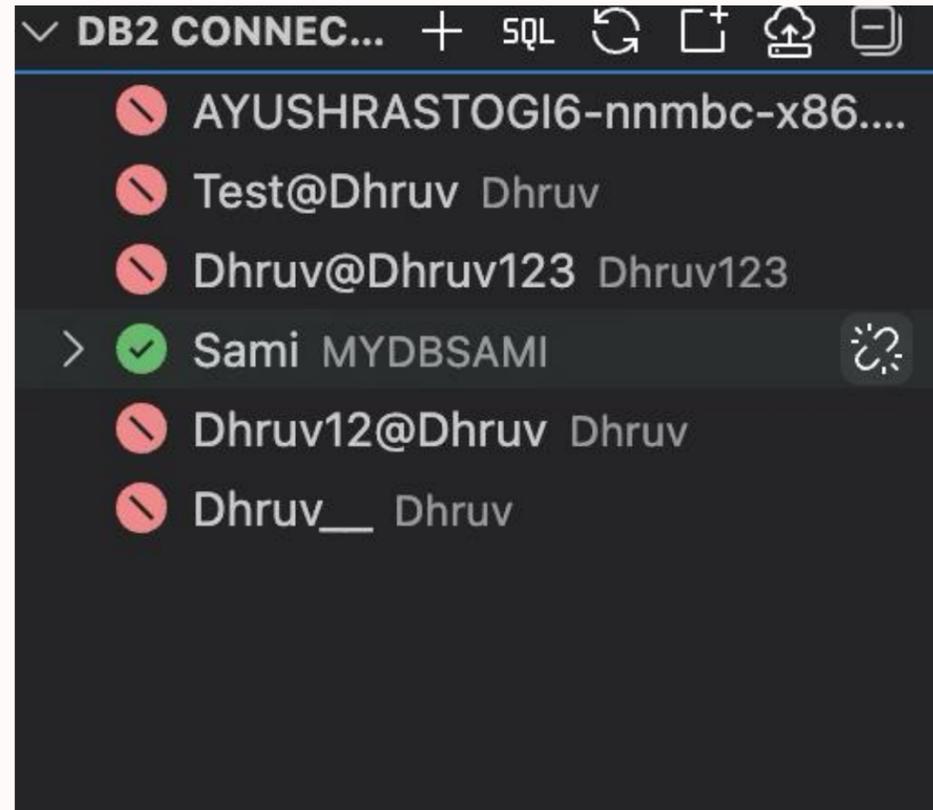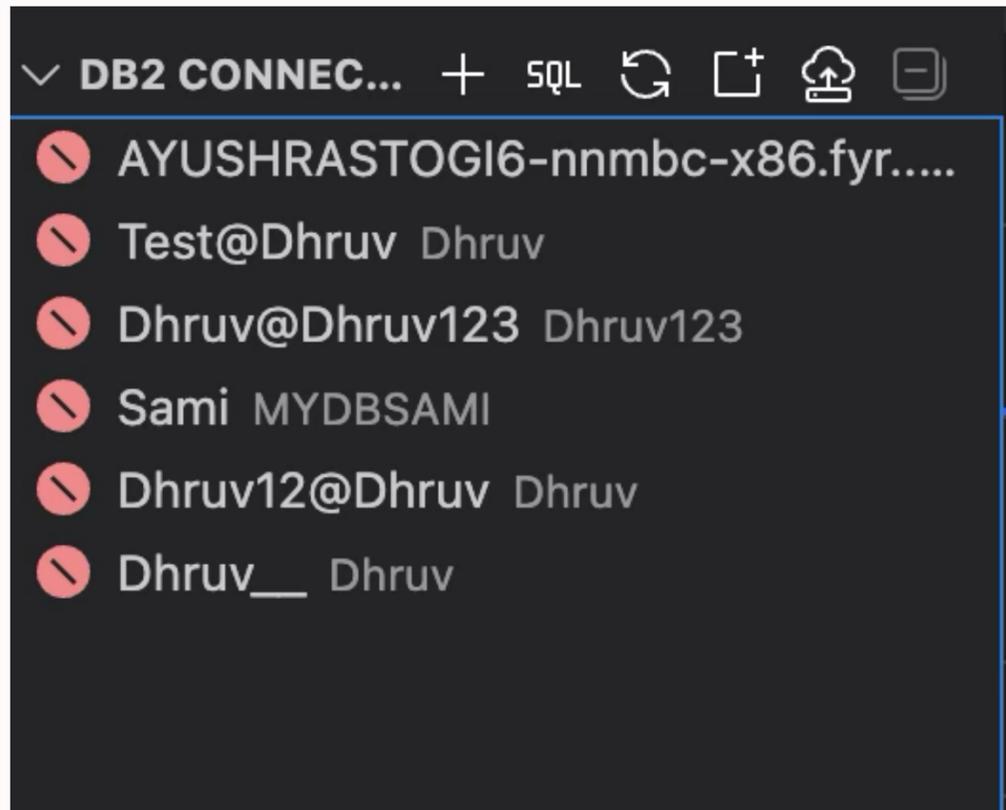
One Click connection to Db2

- Single click to connect with Db2
- Maintain multiple connections simultaneously

Schema Explorer

Table Details

Explore Schema & Table Details

- View all schemas from your active connection in one place
- Instantly browse tables, functions, procedures, and objects inside each schema
- Navigate your database structure faster with a clean, organized layout

Generate DDL

Quickly generate common SQL queries directly from the object explorer.
With a single click, create DDL, SELECT, INSERT, UPDATE, or DELETE statements for any table—saving time and avoiding manual query writing.

SQL Authoring & Execution

- Black Friday, 9:45 PM
- Db2 pricing queries failing
- Customers can't complete purchases
- Thousands in revenue lost per minute

• Search for right query syntax

• Manually write even simplest queries

• No history of last executed queries

• Can't execute multiple queries simultaneously

The Old Way

45 minutes of chaos

1

2

With Db2 Extension

10 minutes to resolution

• Start typing in any .sql file

• Smart keyword and template suggestion make the task easier than ever

• Auto syntax checker and highlighter ensure no errors in the first go only

• Signature help ensure right keywords are used

From panic to productivity — all within the editor you already live in. Priya resolved the crisis before midnight and saved Black Friday sales. That's the power of unified tooling.

Powerful Unified SQL Editor

- One SQL editor for everything
- Run multiple queries at the same time
- See results instantly without switching tabs

Sami

Save   Run ▶

```
SELECT BIGINT1, REAL2, TIME3, FLOAT4, REAL5, INTEGER6,
TIME7, TIME8, INTEGER9, FLOAT10
FROM WILDCAT.TABLE10;
```

Results 347871 rows   Search result set   Export

Query Results: 50 total rows
Showing rows 1-50

BIGINT1	REAL2	TIME3	FLOAT4	REAL5
-810415470905375744	NULL	NULL	0.1532337892410477	0.09668232
-1250579724932263936	0.171152	11:31:01	0.900379371953833	NULL
NULL	0.82912785	05:22:42	NULL	0.61509746
NULL	0.15548538	21:04:04	0.3189156087991811	0.88072544
-2929404792977062912				
347839343891921920	0.71003			
NULL	0.9812			
2716459257439590400	0.3832			
NULL	0.4801			
3337560802657984512	0.4521			

Items per page: 50

Select page 1 of 6958

AYUSHRASTOGI6-nnmbc-x86.fyr...@TESTDB   Save   Run ▶

Results 64 rows in 4 queries   Search result set   Export

Query 1 (16 rows)   Query 2 (16 rows)   Query 3 (16 rows)   Query 4 (16 rows)

```
SELECT EMP_ID, NAME, DEPT_ID
FROM AYUSH.EMPLOYEES;

SELECT EMP_ID, NAME, DEPT_ID
FROM AYUSH.EMPLOYEES;

SELECT EMP_ID, NAME, DEPT_ID
FROM AYUSH.EMPLOYEES;

SELECT EMP_ID, NAME, DEPT_ID
FROM AYUSH.EMPLOYEES;
```

Query 1 Results   16 rows (1021ms)

Query Results: 16 rows

EMP_ID	NAME	DEPT_ID
1	Alice	101
2	Bob	102
3	Charlie	103
4	Anant	104
101	Ayush	20
102	John Doe2	10
107	Dhruv	503
100	dhruv	101
500	Shritansh	202
5	Dhruv	105
10	Dhruv	105
6	Shakshi	108
12	sam	201
103	shubham	201
202	Arjun	10
210	Arjun	10

Smart Keyword Suggestions

Smart keyword suggestions directly inside SQL files, offering quick hints and speeding up query writing.

Template Suggestion:

- Access ready made templates for common Db2 tasks
- Quickly generate tables, procedures, and other objects
- Maintain speed and consistency across your workflow
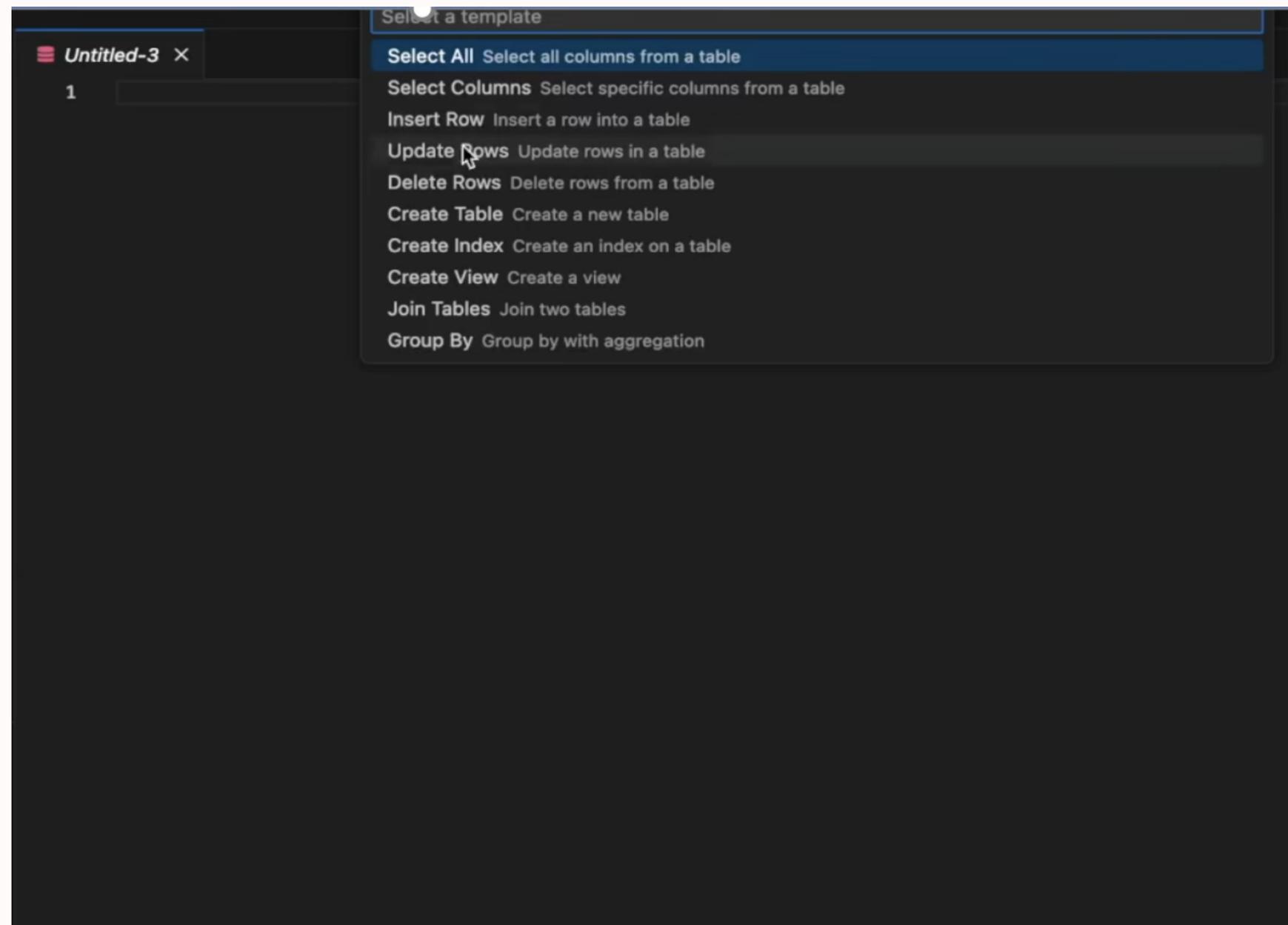
Query History

- Manually save queries in notes/files.
- Re-run queries often because nothing gets stored.
- Hard to recall which query failed.
- Jump between logs and editor to check past outputs.
- No single place to review history.

The Old Way

45 minutes of chaos

1

2

With Db2 Extension

10 minutes to resolution

From panic to productivity — all within the editor you already live in. Priya resolved the crisis before midnight and saved Black Friday sales. That's the power of unified tooling.

- Here are crisp points you can use:
- Shows complete history of all executed queries — both successful and failed.
- Displays query text, execution status, timestamp, and result.
- Helps users quickly review past runs and debug failed queries without re-executing.
- Makes tracking workflow easier with a clean, organized history panel.

Query history

- Persistent query history
- Query execution logs for future use
- See the older results and execution summary

QUERY HISTORY

- Db2 SQL Editor: 03/02/2026, 11:57:37 (AYUSHRASTOGI6-n...
  - SELECT EMP_ID, NAME, DEPT_ID FROM AYUSH.EMPLOYEES;
  - SELECT EMP_ID, NAME, DEPT_ID FROM AYUSH.EMPLOYEES;
  - SELECT EMP_ID, NAME, DEPT_ID FROM AYUSH.EMPLOYEES;
  - SELECT EMP_ID, NAME, DEPT_ID FROM AYUSH.EMPLOYEES;
- Db2 SQL Editor: 03/02/2026, 11:56:37 (db2bridgesami1.fyre.ib...
  - SELECT BIGINT1, REAL2, TIME3, FLOAT4, REAL5, INTEGER6, ...
  - SELECT BIGINT1, REAL2, TIME3, FLOAT4, REAL5, INTEGER6, ...
  - SELECT BIGINT1, REAL2, TIME3, FLOAT4, REAL5, INTEGER6, ...
- Db2 SQL Editor: 03/02/2026, 11:46:17 (db2bridgesami1.fyre.ib...
  - SELECT BIGINT1, REAL2, TIME3, FLOAT4, REAL5, INTEGER6, ...

Db2 SQL Editor | Query Status: Db2 SQL Editor

Status | Result

File	Db2 SQL Editor
Executed	03/02/2026, 11:57:37
Connection	TESTDB@AYUSHRASTOGI6-nnmbc-x86.fyre.ibm.com
Statement	SELECT EMP_ID, NAME, DEPT_ID FROM AYUSH.EMPLOYEES;
Return code	0
SQL code	
SQL state	
Message	Query executed successfully
Elapsed time(ms)	1021

Status | Result

Rows: 16   Execution Time: 1021 ms   Search results   Export

EMP_ID	NAME	DEPT_ID
1	Alice	101
2	Bob	102
3	Charlie	103
4	Anant	104
101	Ayush	20
102	John Doe2	10
107	Dhruv	503
100	dhruv	101
500	Shritansh	202
5	Dhruv	105
10	Dhruv	105
6	Shakshi	108
12	sam	201
103	shubham	201
202	Arjun	10
210	Arjun	10

Smart Snippet Suggestions
- Get intelligent SQL snippet suggestions as you type
- Write faster with instant, context aware completions tailored to your query.

One Extension. Endless Power.

Guided Connection Wizard

Simplified Db2 connection setup with easier SSL configuration.
The new connection flow removes unnecessary steps and makes SSL setup straightforward, helping developers connect securely with less effort and fewer errors — and get productive faster.

Schema Explorer with Carbon UI

Schemas, tables, views and other objects in a beautiful tree structure.
IBM Carbon Design brings consistency and polish to every interaction.
Right-click menus provide instant access to common operations.

Persistent Query History

Every query you run is automatically tracked and timestamped. Search your history by table name, date, or keywords. Compare results side-by-side to spot what changed. Your debugging context is preserved forever.

Exportable Results

Export query results to CSV, JSON with one click.

Your Daily Workflows — Transformed

Onboarding New Developers

Before: 2 hours of frustrating setup and troubleshooting.

After: 15 minutes with guided wizard; productive on day one

Client Demonstrations

Before: Chaotic switching; live demos often broke.

After: Polished webview panels for smooth, consistent demos.

Production Debugging

Before: Pure guesswork, hours recreating investigations.

After: One-click comparison of current vs. historical data.

Db2 Local Instance Setup

Before: Black-box process with no feedback.

After: Visual progress and clear guidance at every step.

Four Critical Gaps We're Closing

Fragmented Tooling

- Developers juggle 5+ apps
- Different interfaces, shortcuts
- Context switching destroys flow

Complex Setup

- Complex SSL/truststore setup
- Cryptic error messages
- New team members waste days connecting

Invisible Diagnostics

- Query history disappears
- No record of past queries
- Debugging requires recreating queries

Collaboration Chaos

- Manual sharing of results
- Teams can't reproduce issues
- Knowledge siloed in individual tools
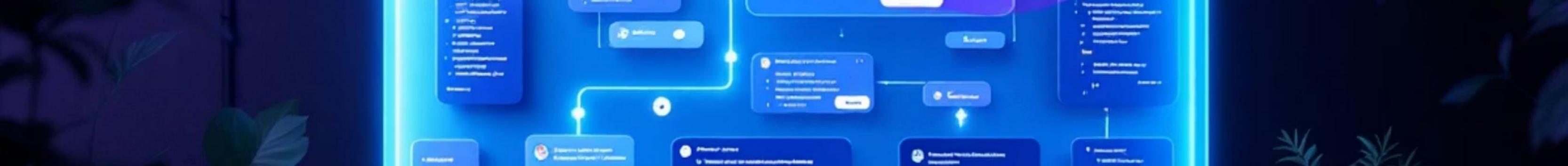
The Future:

Query Optimization

Optimize your queries for better execution

AI Enabled optimization

Optimize the query with context aware AI

Stored Procedure Debugger

Debug stored procedure from extension only

More tools coming up

More tools and ideas coming up...

Q & A

What is the benefit of the schema explorer?
You can browse schemas, tables, procedures, and objects in one organized view without switching tools.

What problem does the Db2 Developer Extension solve?
It removes tool-switching, long setup times, SSL headaches, and scattered workflows by bringing everything into VS Code.

How does it help during production issues like the Black Friday crisis?
It gives quick access to saved queries, history, and comparison tools, reducing debugging time from 45 minutes to around 10.

What makes connection setup easier?
A guided wizard with SSL validation, real-time error checks, and reusable connection profiles.

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