

# SAP Query AI

Natural Language → SAP HANA SQL · Built by Prachi Nakade

## The Problem → The Solution

### ✗ Before — Manual Process

1. Business user needs a report
2. Raises ticket to IT
3. Developer writes SQL manually
4. Review → test → send back

**2–5 days**

Per ad-hoc request

### ✓ With SAP Query AI

1. Type question in plain English
2. AI generates SAP HANA SQL
3. View results + explanation
4. Copy SQL → run in HANA Studio

**~5 seconds**

From question to query

## Architecture

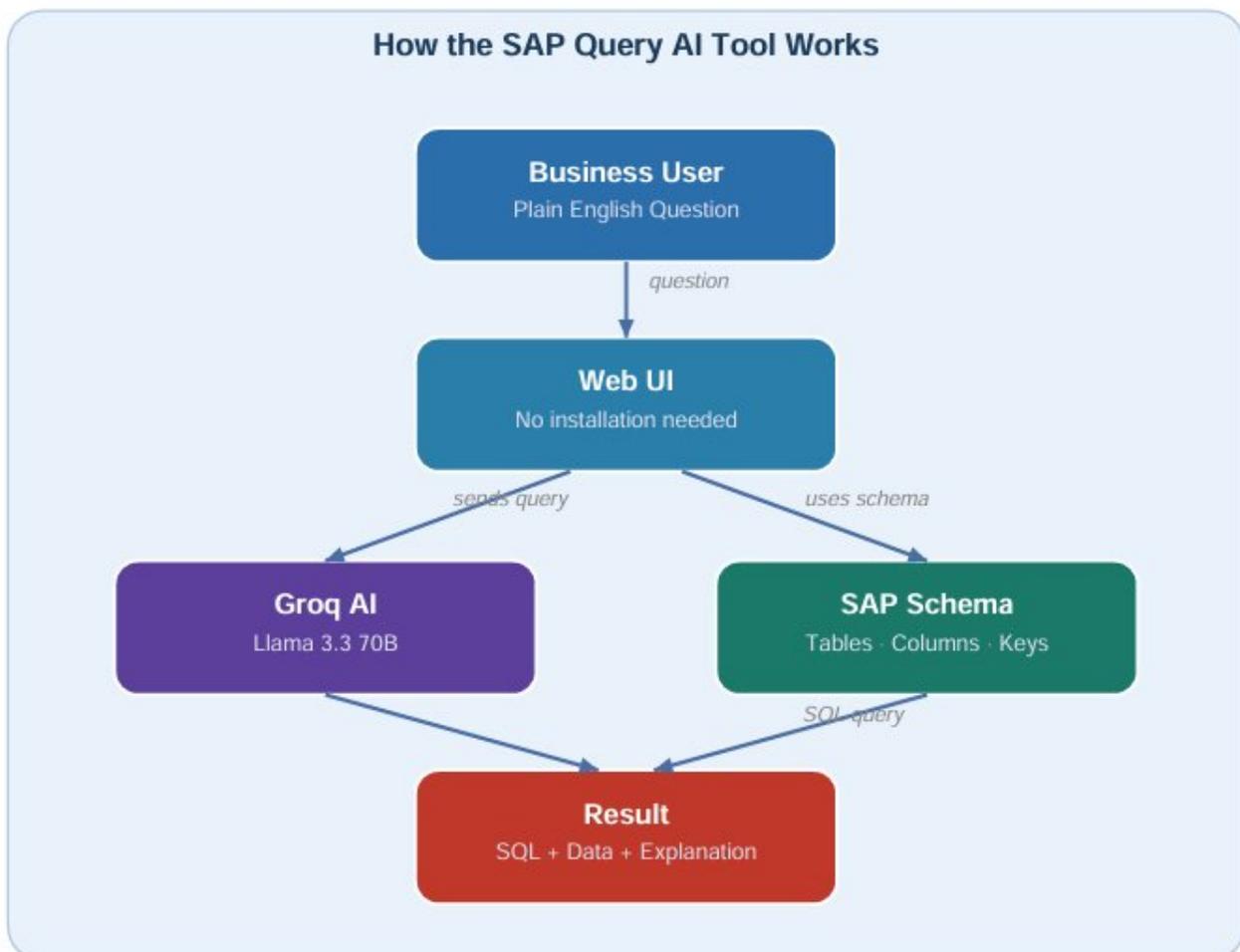


Figure: End-to-end flow from user question to SAP query result

# Tech Stack, Data Models & Roadmap

## Tech Stack

Component	Detail	Cost
Python 3.12	Backend & CLI	Free
Flask	REST API / Web framework	Free
Groq AI - Llama 3.3 70B	LLM query generation	Free tier
SAP HANA	Target database	Compatible
SAP Datasphere	Virtual data models	Compatible

## SAP Data Models Supported

SAP HANA Native	Tables, Calc Views	BUILT
SAP Datasphere	Analytic Models, Views	BUILT
SAP S/4HANA	CDS Views (I_, C_, Z_)	READY
SAP BW/4HANA	CompositeProviders, ADSOs	READY
BW[4] PCE	Federation via Datasphere	READY
BEx Queries	MDX generation	ROADMAP
SAP Analytics Cloud	Stories, Models	ROADMAP

## What's Coming Next

### → Live connection to SAP HANA databases

Connect directly and execute queries

### → BEx Query MDX generation

Support for legacy BW reporting

### → SAP Datasphere view auto-generation

Create views from natural language

### → Multi-language support

German, Hindi, and more

### → Role-based access & query history

Enterprise-ready features

## Curious to see this in action?

Connect with me on LinkedIn or drop a comment — I'd love to show you more.

Built by Prachi Nakade · 10 years SAP Data & Analytics · Datasphere · Native HANA · BW/4HANA · S/4HANA