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June 30th, 2025

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Agents at Work: Putting MSSQL MCP Server into Practice

Platform Development~

Data Development~

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Principal Product Manager



How often have you wished you could just *talk* to your data? Imagine extracting crucial insights, updating records, or building complex reports without wrestling with intricate query languages or relying on a dedicated developer. For many professionals, the true power of their enterprise data remains locked behind technical barriers, hindering agile operations and quick decision-making. This universal challenge affects countless individuals whose expertise lies outside the realm of database management.

In our [previous blogpost](#), we introduced the groundbreaking [MSSQL MCP Server](#) (in Preview), highlighting its role in bridging your MSSQL databases directly with AI agents through the Model Context Protocol, and demonstrated how to integrate it with your favorite MCP Client (Agent Host). Now, it's time to see this innovation come to life.

To get the most out of this journey and experience the power of conversational data interaction firsthand, we highly recommend following along. If you've configured your MSSQL MCP Server with your preferred MCP Client (Agent Host) as detailed in our previous blog post, you're all set! You can simply use the [prompts](#) provided throughout Susan's story directly with your Agent Host to replicate her groundbreaking workflow.

Join us as we follow Susan, an event manager, on her journey to revolutionize her daily data interactions, turning once-daunting tasks into effortless, conversational experiences.

Susan's Event Management Journey: A New Era of Data Interaction

Meet Susan, an Event Manager at Contoso Events. Her expertise lies in crafting seamless events, not complex databases. Tasked with managing a massive corporate gathering's intricate data, Susan discovers how MSSQL MCP Server turns this daunting challenge into absolute bliss through simple conversations.

Building the Conference Database

Susan kicks off her event management tasks by explaining her needs to Copilot Chat in plain language. She tells the Copilot Agent exactly what information she wants to track for her big corporate event, from speakers and their sessions to attendee registrations, even detailing the available rooms and their capacities. Susan trusts the AI to handle all the underlying database schema complexities.

Prompt

Hi, I'm Susan, an Event Manager with Contoso Event Management. My expertise is crafting perfect events, but when it comes to database tech, I'm no wizard. However, I will be providing you with all the necessary information related to the event such as speakers, events, registration, session, and room information.

I need to track **speakers** including their name, what topic they will present, and their contact email. I also need to manage **sessions** with details like the session's title, who the speaker is, the date and time, the room, and how many attendees the speakers expect (expected registrations). Expected registration cannot exceed allotted room capacity. Lastly, I want to manage **attendee registrations**, tracking attendees by their name and email, and linking them to the sessions they sign up for.

I have the following information on the rooms that are available, and their maximum capacity allowed:

Main Hall with a max capacity 350 attendees

Room A max capacity 100 attendees

Room B max capacity 80 attendees

Room C max capacity of 150 attendees

Ball Room max capacity 200 attendees

Agent's Response

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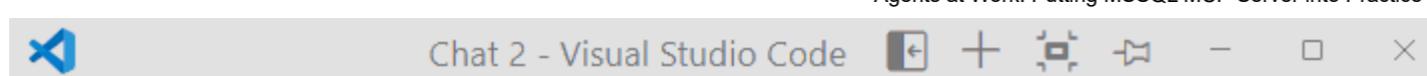
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Summarize



Populating the Conference Data

With the database structure in place, Susan moves on to adding the core details for her event. She provides a list of speakers and their respective sessions, relying on Copilot Chat to correctly input all the information and link everything together. Importantly, she wants to see the sessions immediately after they're added to confirm everything looks right.

Prompt

Can you add the following speakers and sessions and show me the title, speaker name, and room for all sessions once added?

Speakers

Elena Petrova, topic 'AI Ethics in Practice', email elena.p@example.com.

David Kim, topic 'Cloud Security Best Practices', email david.k@example.com.

Sophia Lee, topic 'Future of Data Analytics', email sophia.l@example.com.

Marcus Thorne, topic 'Cybersecurity Threats & Defenses', email marcus.t@example.com.

Olivia Grace, topic 'Edge AI and IoT', email olivia.g@example.com.

Noah Vance, topic 'Quantum Computing Basics', email noah.v@example.com.

Tom Harris, topic 'The future of AI', email tom.harris@example.com

Sessions

'Keynote on AI Ethics' with speaker Elena Petrova, on October 26, 2025, at 9 AM, in 'Main Hall', capacity 300.

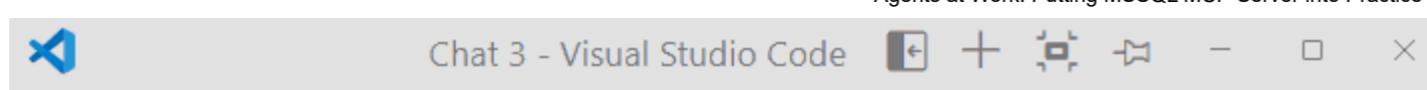
'Securing Your Cloud Data' with speaker David Kim, on October 26, 2025, at 10:30 AM, in 'Room A', capacity 100.

'Demystifying Quantum Computing' with Noah Vance, on Oct 26 11:30 AM, in 'Room B', capacity 80.

'Edge AI Applications' with Olivia Grace, on Oct 26 13:00:00, in 'Room C', capacity 70.

'Advanced Cybersecurity Threats' with Marcus Thorne, on Oct 26 14:30:00, in 'Room A', capacity 100.

Agent's Response



Edit with Copilot

Agent Mode

Ask Copilot to edit your files in [agent mode](#). Copilot will automatically use multiple requests to pick files to edit, run terminal commands, and iterate on errors.

Copilot is powered by AI, so mistakes are possible. Review output carefully before use.

As an internal user, additional [telemetry](#) is collected. If you work on a project that contains customer content, you must [disable telemetry](#).

or type # to attach context

Add Context...

Edit files in your workspace in agent mode

Agent Claude Sonnet 4 (Preview)



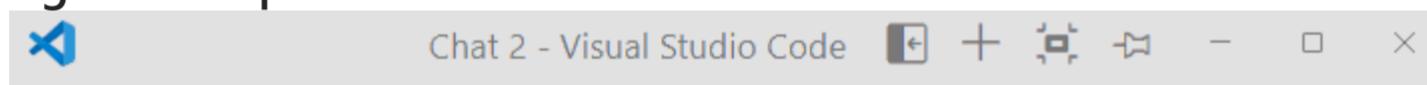
Updating Session and Speaker Details

Susan realizes a quick adjustment is needed for the 'Keynote on AI Ethics' session's expected attendance, and a speaker has updated their topic. She simply describes these changes, confident that Copilot Agent will handle the underlying database modifications without any issues.

Prompt

I think I made a mistake, looks like we need to increase the capacity of the 'Keynote on AI Ethics' session by 50 additional attendees is it still possible? Also, Ms. Sophia Lee's requested that her topic has changed to 'Advanced Analytics with Fabric'.

Agent's Response



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or type # to attach context

Add Context...

Edit files in your workspace in agent mode

Agent Claude Sonnet 4 (Preview)



Retrieving Speaker Information (Spotting a Gap!)

Susan now needs to get in touch with one of her speakers, Tom Harris. Instead of hunting through spreadsheets, she simply asks Copilot Chat to find his contact details.

Prompt-01

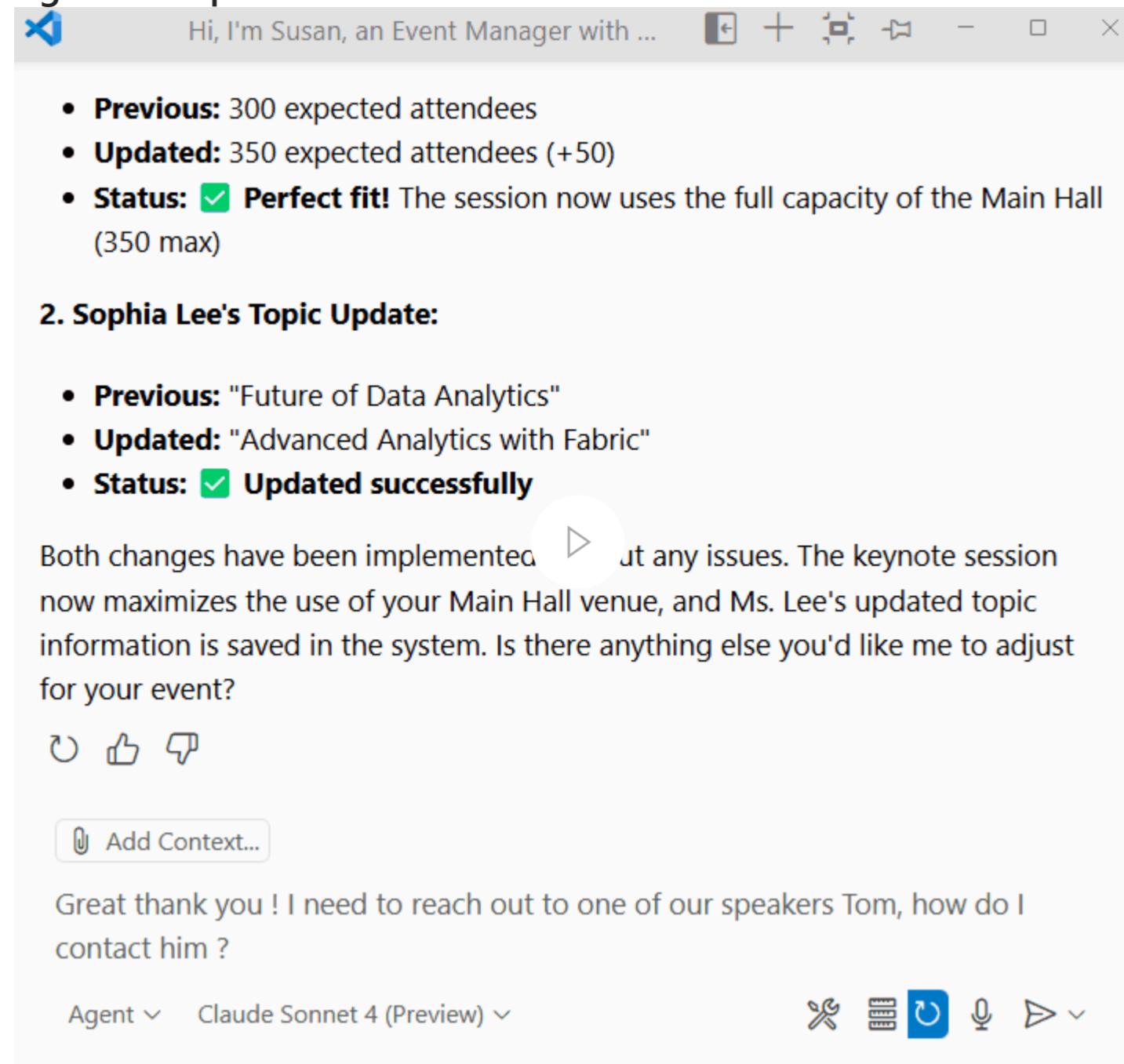
Great thank you! I need to reach out to one of our speakers Tom, how do I contact him?

Prompt-02

Looks like I missed adding Mr. Tom's session is it possible to add one?

'The future of AI' with Tom Harris, on Oct 26 14:30:00, in 'Room A', capacity 150

Agent's Response



Registering Attendees

Now, the attendees are signing up, and Susan has a long list of registrations to process. For a non-technical person, this would typically involve tedious data entry or complex imports. But with Copilot Chat, Susan simply provides the list, and the AI handles all the intricate work of linking attendees to their chosen sessions.

Prompt

I need to Register these attendees for sessions

John Doe (john.doe@example.com) for 'Keynote on AI Ethics' and 'Edge AI Applications'.

Pam White (pam.white@example.com) for the 'The future of AI'

Jane Smith (jane.s@example.com) for 'Keynote on AI Ethics' and 'Securing Your Cloud Data'.

Mike Brown (mike.b@example.com) for 'Demystifying Quantum Computing' and 'Advanced Analytics with Fabric'.

Alice Green (alice.g@example.com) for 'Keynote on AI Ethics', 'Securing Your Cloud Data', and 'Edge AI Applications'.

Bob White (bob.w@example.com) for 'Demystifying Quantum Computing' and 'Advanced Cybersecurity Threats'.

Carol Black (carol.b@example.com) for 'Keynote on AI Ethics'. David Grey (david.g@example.com) for 'Edge AI Applications'.

Emily Blue (emily.b@example.com) for 'Securing Your Cloud Data'

Frank Red (frank.r@example.com) for 'Advanced Cybersecurity Threats'

Grace Yellow (grace.y@example.com) for 'Demystifying Quantum Computing'

Henry Orange (henry.o@example.com) for 'Keynote on AI Ethics' and 'Advanced Cybersecurity Threats'.

Tim Chao (tim.chao@example.com) for the 'The future of AI' and 'Advanced Cybersecurity Threats.' Mohan Das (mdas@example.com) for the 'The future of AI'

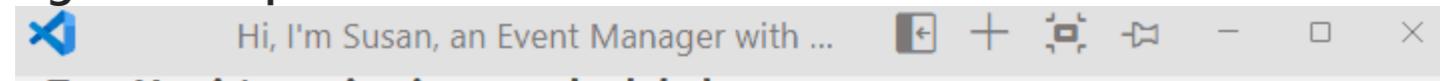
Filling in the Gaps: Scheduling and Registering

Filling in the Gaps: Scheduling and Registering
Following Copilot Chat's helpful flag about Sophia Lee not having a scheduled session (which impacted Mike Brown's registration), Susan promptly provides the details to rectify the situation.

Conversation (Prompt)

Yes, we need to schedule the session for Sophia Lee and register Mike Brown for the session.

Agent's Response



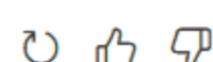
Tom Harris's session is now scheduled:

- **Session:** "The future of AI"
- **Speaker:** Tom Harris
- **Date:** October 26, 2025
- **Time:** 2:30 PM (14:30)
- **Room:** Room C
- **Expected Attendees:** 150
- **Room Capacity:** 150 (perfect fit!)

📅 Updated 2:30 PM Time Slot:

- **Room A:** "Advanced Cybersecurity Trends" - Marcus Thorne (100 attendees)
- **Room C:** "The future of AI" - Tom Harris (150 attendees)

Both sessions can now run simultaneously at 2:30 PM without any conflicts. Tom's session is all set!



[Add Context...](#)

Edit files in your workspace in agent mode

Agent ▾ Claude Sonnet 4 (Preview) ▾



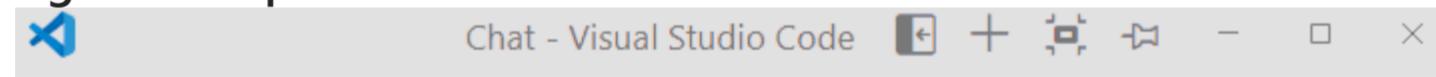
Post-Event Analysis: Session Popularity Report

The conference is a wrap, and now it's time for Susan to provide vital insights to her CMO. The first request: a clear report on which sessions were the most popular. Without missing a beat, Susan turns to Copilot Chat to pull this crucial data.

Prompt

The event is over, and our CMO wants to know which sessions were most popular. Can you give me a report showing each session's title and the total number of attendees it had, sorted from most popular to least popular?

Agent's Response



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[Add Context...](#) or type # to attach context

[Add Context...](#)

Edit files in your workspace in agent mode

Agent ▾ Claude Sonnet 4 (Preview) ▾



Other Reports

Prompt

The CMO is clearly impressed with Susan's newfound data prowess, and the requests for insights keep coming! These next few reports are crucial for measuring overall event success and planning future events. For these, we invite you to try generating them yourself using simple, conversational prompts.

Show me the total number of unique attendees who registered for the conference across all sessions.

Show me a report on each room and the total number of attendees across all sessions held in that room, sorted by attendee count.

Conclusion

Susan's journey isn't just a story about event management; it's a powerful illustration of **MSSQL MCP Server** in action. We've seen how conversational AI, powered by a robust protocol, completely transforms database interaction, making complex SQL operations as simple as a natural language prompt. No longer are actionable insights confined to technical experts, nor do building modern applications in an agentic way require deep coding knowledge. This paradigm shift democratizes data, empowering every user to command their information with unprecedented ease. We hope this demonstration inspires you to explore what's possible. We can't wait to see what you'll build!

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AI and Data Enthusiast | Passionate about leveraging data to build intelligent solutions

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Guillaume BERTHIER (External) July 22, 2025 [0](#)



Hi Arun, that's amazing ! why don't you request the registration of this MSSQL MCP in the [official VScode MCP Marketplace \(temporary\)](#) to get more visibility @ <https://github.com/microsoft/vscode-docs/issues/8524>

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