Microsoft 2 Day Workshop & Pre-Read Materials

Workshop Agenda

Day 1 – Foundations & Initial Build

Time	Duration	Session	Format	Related pre-read
09:00 – 09:10	10 min	Welcome & Objectives	Presentation	–
09:10 – 10:10	60 min	Agents & Agentic Systems	Presentation	Agents and Agentic Systems
10:10 – 10:50	40 min	Toolchain & Tool-Calling Overview (SK, AI Foundry, MCP, Azure Functions, Vector Store)	Presentation	Build Agentic System Components
10:50 – 11:05	15 min	**Break**	–	–
11:05 – 12:35	90 min	Use-Case Discovery & Crafting the User Experience	Hands-on	Use-Case Exploration & Ideation; Crafting a User Experience
12:35 – 13:35	60 min	**Lunch**	–	–
13:35 – 16:45	190 min	**Lab 1 – Build Vector Store, Knowledge Graph & Assemble the Agentic System**	Hands-on	Build Agentic System Components; Assembling the Agentic System
16:45 – 17:00	15 min	**Break**	–	–
17:00 – 17:25	25 min	Day-1 Wrap-up & Q&A	Presentation	–

Day 2 – End-to-End Build, Validation & Evaluation

Time	Duration	Session	Format	Related pre-

				read
09:00 – 09:15	15 min	Recap & Day-2 Goals	Presentation	–
09:15 – 11:00	105 min	**Build Sprint 1 – End-to-End Solution: Deploy, Modify & Test**	Hands-on	Assembling the Agentic System
11:00 – 11:15	15 min	**Break**	–	–
11:15 – 12:45	90 min	Build Sprint 2 – Data Pipelines & Validation	Hands-on	Build Agentic System Components
12:45 – 13:45	60 min	Testing, Tracing & Evaluation	Hands-on	Evaluating the Agentic Application
13:45 – 14:15	30 min	Evaluation & Responsible AI Briefing	Presentation	Evaluating the Agentic Application
14:15 – 15:15	60 min	**Lunch**	–	–
15:15 – 16:00	45 min	Demo & Peer Review	Hands-on	Evaluating the Agentic Application
16:00 – 16:15	15 min	**Break**	–	–

Objectives

To learn how to build an agentic system using the latest tools and technologies on Microsoft platforms. The workshop will be a combinations of presentation and hand on workshop. The goal is to provide the participants a firm grounding in the Microsoft Agentic Ecosystem to quickly create rapid of value prototypes for which will seamlessly transition to Enterprise grade agentic deployments.

Key Sections of the Workshop will include:

1. Agents and Agentic Systems
2. Use Case Exploration and Ideation
3. Crafting a User Experience
4. Build Agentic System Components
5. Assembling the Agentic System
6. Evaluating the Agentic Application

Suggested Pre-Read Material

HAX Toolkit

The HAX Toolkit is for teams building user-facing AI products. It helps you conceptualize what the AI system will do and how it will behave. Use it early in your design process. https://www.microsoft.com/en-us/haxtoolkit/

AutoGen:

https://microsoft.github.io/autogen/stable/user-guide/agentchat-user-guide/tutorial/index.html

AI Search & Vector Store

Understand Vector search and Embedding Models, and how they are used in the Microsoft AI Search and Vector Store. The goal is to understand how to use the tools to build agentic systems.

https://learn.microsoft.com/en-us/azure/search/vector-store https://learn.microsoft.com/en-us/azure/search/vector-search-overview https://learn.microsoft.com/en-us/azure/search/knowledge-store-concept-intro

Copilot Studio

Low Code option for building agents and agentic systems, review the documentation to understand the capabilities available out of the box.

https://learn.microsoft.com/en-us/microsoft-copilot-studio/fundamentals-what-is-copilot-studio

Agent M365 SDK

The Microsoft 365 Agents SDK is used to build self-hosted agents. It's a collection of libraries and tools that allow you to build an agent in code. The SDK facilitates communication between a client and one or more agents by handling the conversation between them. The SDK provides an easy path to incorporate Microsoft AI services, such as Graph, Azure OpenAI, and non-Microsoft AI services. https://learn.microsoft.com/en-us/microsoft-365/agents-sdk/agents-sdk-overview

Teams Toolkit for Visual Studio

https://learn.microsoft.com/en-us/microsoftteams/platform/toolkit/teams-toolkit-fundamentals

Semantic Kernel

A enterprise grade framework for building agents and agentic systems, review the documentation good to get a grounding in the code concepts, memory, tools and planners. The goal is to understand how to use the tools to build agentic systems. https://learn.microsoft.com/en-us/microsoft-copilot-studio/fundamentals-what-is-copilot-studio

Semantic Kernel Agent Framework:

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https://learn.microsoft.com/en-us/semantic-kernel/frameworks/agent/?
pivots=programming-language-python
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Semantic Process Framework:

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https://learn.microsoft.com/en-us/semantic-kernel/frameworks/process/process-framework
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AI Foundry

Understand the core components of the Azure AI Foundry. https://learn.microsoft.com/en-us/azure/ai-foundry/what-is-azure-ai-foundry

- Model Catalog
- Responsible AI
- Evaluations
- Tracing
- Azure AI Agent Service

AI Templates

https://azure.github.io/awesome-azd/

AI Foundry VS Code Extension

https://devblogs.microsoft.com/foundry/azure-ai-foundry-vscode-extension-preview/

https://learn.microsoft.com/en-us/azure/ai-foundry/concepts/trace

Azure AI Model Inference

https://devblogs.microsoft.com/dotnet/azure-ai-model-catalog-dotnet-inference-sdk/

Use Cases

https://github.com/Azure-Samples/graphrag-legalcases-postgres/tree/main

https://github.com/Azure-Samples/aisearch-openai-rag-audio

The Cutting Edge

https://devblogs.microsoft.com/foundry/semantic-kernel-a2a-integration/

https://devblogs.microsoft.com/foundry/get-started-azure-openai-advanced-audio-models/

https://devblogs.microsoft.com/foundry/integrating-azure-ai-agents-mcp-typescript/

https://devblogs.microsoft.com/foundry/evaluation-metrics-azure-ai-foundry/

https://devblogs.microsoft.com/foundry/ai-red-teaming-agent-preview/

https://devblogs.microsoft.com/foundry/azure-ai-mem0-integration/

https://devblogs.microsoft.com/foundry/ welcome-to-azure-ai-foundry-blog/