

warning "Backend update (October 2026)" GitHub Models inference was retired on July 30, 2026. Any references below are retained only for historical context while this lab is migrated. Use Lab 013 ? Free LLM backends to configure Foundry Local or Ollama before continuing.

Lab 024: Teams AI Library Bot

Level: L200 Path: Agent Builder ? Teams Time: ~60 min ? Cost: Free ? Microsoft 365 Developer Program (free) + GitHub Models

What You'll Learn

Build a code-first Teams bot with the Teams AI Library (JavaScript) Connect the bot to GitHub Models (no Azure OpenAI needed) Run locally with the Teams Toolkit and Teams App Test Tool Handle user messages, adaptive cards, and actions Add AI-powered responses using the AI module

Introduction

The Teams AI Library is a JavaScript/TypeScript SDK for building AI-powered bots that run natively in Microsoft Teams. Unlike Copilot Studio (no-code), Teams AI Library gives you full programmatic control ? custom logic, webhook integrations, complex state management. This lab builds the OutdoorGear customer service bot for Teams.

Prerequisites

Node.js 18+ (node --version) Teams Toolkit VS Code extension (install from VS Code marketplace) Microsoft 365 Developer Program tenant (free at developer.microsoft.com/microsoft-365/dev-program) GITHUB_TOKEN set tip "Free M365 Developer tenant" The M365 Developer Program gives you a free 90-day sandbox tenant with Teams, SharePoint, and all Microsoft 365 apps ? renewable if active.

Lab Exercise

Step 1: Create the project

[diagram or code sample]

Or use VS Code: 1. Open VS Code ? Teams Toolkit extension (left sidebar) 2. Click Create a New App ? Bot ? AI Bot ? JavaScript 3. Name: OutdoorGearBot

Step 2: Project structure

[diagram or code sample]

Step 3: Configure GitHub Models

Edit src/config.js:

[diagram or code sample]

Edit src/app.js:

[diagram or code sample]

Step 4: Write the system prompt

Edit src/prompts/chat/skprompt.txt:

[diagram or code sample]

Edit src/prompts/chat/config.json:

[diagram or code sample]

Step 5: Run locally with Teams App Test Tool

[diagram or code sample]

This opens the Teams App Test Tool ? a browser-based simulator that lets you test your bot without deploying to real Teams.

Try: What boots do you have? Tell me about your return policy I need a tent for 2 people in winter /reset

Step 6: Add an Adaptive Card response

Adaptive Cards make bot responses rich and interactive:

[diagram or code sample]

Architecture

[diagram or code sample]

Next Steps

No-code Teams agent: ? Lab 011 ? Copilot Studio Deploy to Azure: ? Lab 028 ? Deploy to Container Apps

Phase 3 modernization

warning "Verified 2026-10-27" Use the Microsoft 365 Agents SDK and Agents Toolkit. Validate declarative agents against manifest v1.9. Keep Copilot Studio trial and Agents Playground routes optional and clearly bounded.

[diagram or code sample]

Microsoft 365 Agents SDK Microsoft 365 Agents Toolkit Declarative agent schema

Supporting kit

The site build generates stable PDF and ZIP downloads. The ZIP contains the lab guide and every supporting file declared for this lab.

[Download generated PDF](#) [Download generated ZIP](#)

Supporting file: CHEATSHEET.md

Supporting files: Lab 024: Teams AI Library Bot

Start with the documented local or free path. Record assumptions and validation evidence.

Keep hosted services optional unless the lab marks them required.

Supporting file: README.md

Lab 024: Teams AI Library Bot

Use these files with the lab guide and generated kit.