AGENTIC AI FOR ARCHITECTS WORKSHOP
Hands-On Challenge 2 User Guide

(Version: August 2025)

1. Setup

1.1 Download the *travel_expenses.pdf* and *openapi-spec.json* from GitHub:
https://github.com/johann-sov/agents-workshop/tree/main/Challenge_2_Travel_Expense_Agent

1.2 Navigate to the SAP Project Agent Builder: https://sovanta-icd9n2rh.baf-prod.cfapps.us10.hana.ondemand.com/ui/index.html#/

1.3 Log in with your provided username and password

1.4 After logging in, you should see this screen:
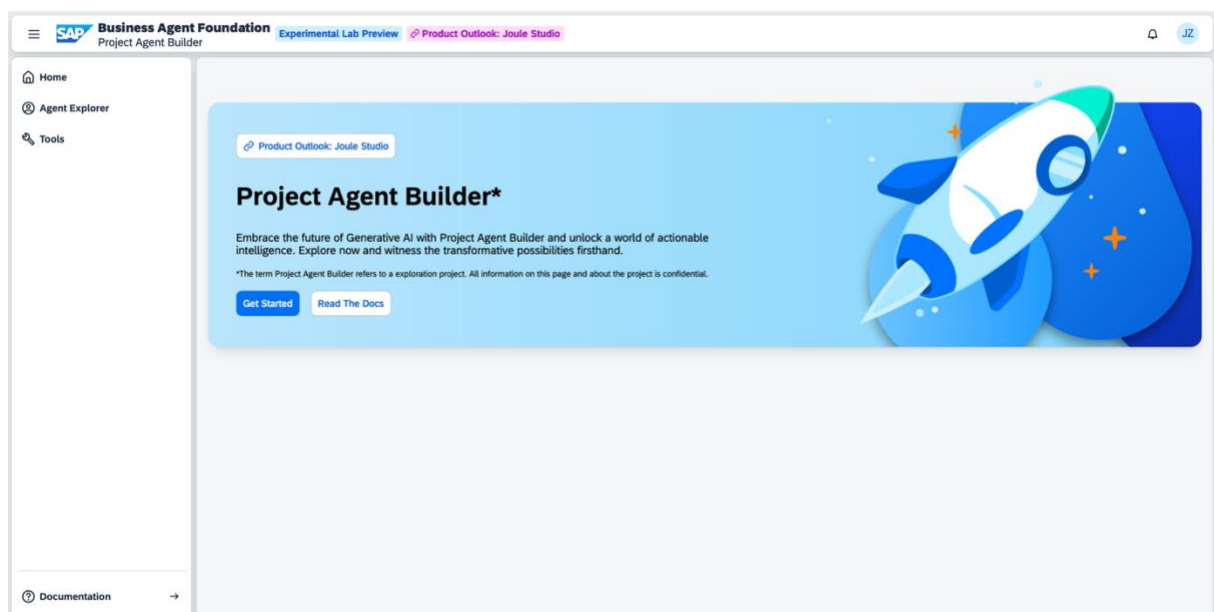
2. The Agent's Goal

2.1 This challenge is more open-ended than challenge 1! You will have to design your own approach for how exactly your agent should operate.

2.2 The main goal of the agent is to decide whether an incoming travel expense report should be approved or rejected. This expense report is represented by the *travel_expenses.pdf* document.

Hands-On Challenge 2 User Guide | Johann Zapf & Daniel Jeckel | Date: 19.08.2025 | CLASSIFICATION
sovanta America Inc. | 18 Campus Blvd, Suite 100| Newtown Square, PA 19073 |+1 (215) 634-9840 | info@sovanta.com

sovanta.com

2.3 To achieve this goal, the agent has to check if a travel ticket exists for the travel expense and if all invoices mentioned in the expense report have been attached to that ticket.

2.4 The agent must also ensure that the daily M&IE (Meals & Incidental Expenses) allowances are correctly set in the ticket. There are multiple options for where the agent can get this information from: The respective API in the travel ticket, a web search, or even via human input.

2.5 Based on these checks, the agent should take action and approve or reject the travel ticket.

3. Available Tools

At a minimum, your agent will need the following tools:

- **Document Tool** with the *travel_expenses.pdf* document
- **OpenAPI Tool** with destination *Travel_Ticket* and the OpenAPI-Specification from the *openapi-spec.json* file for access to the travel ticket system

Additionally, you may consider adding additional tools that could improve accuracy or help with edge cases:

- **Calculator Tool** for verifying amounts.
- **Human Input Tool** for clarification if the agent is unsure.
- ~~**Websearch Tool** for external checks (e.g. verifiying addresses etc.)~~
  Websearch has been retired from Alpha!

4. Testing & Verification

4.1 Once your agent is set up, start a chat and ask the agent to process the travel expenses report.

4.2 Check not only the final approve/reject decision, but *how* the agent got there. Did it verify all required details? Did it cross-check values properly?

4.3 Analyze the trace diagram to follow each reasoning step. This will help you spot mistakes or missing checks.

5. Hints

5.1 Start with a simple version of the agent and then refine it step by step.

5.2 Make sure the agent actually behaves correctly! The agent may approve or reject the ticket, but that does not necessarily mean that the steps were executed correctly. Use the trace diagram to inspect if each step is correct.

Hands-On Session User Guide| Johann Zapf | Date: 30.07.2025 | CLASSIFICATION
sovanta America Inc. | 18 Campus Blvd, Suite 100| Newtown Square, PA 19073 |+1 (215) 634-9840 | info@sovanta.com

sovanta.com

5.3 If you encounter issues with the behavior of your agent, try refining the instructions or add some additional tools.

5.4 It might make sense to add some further tools to verify that the agent works correctly (e.g. Calculator or Human Input Tool) or to inspect the current tools more deeply.

5.5 Challenge yourself to make your agent robust against incomplete or inconsistent data (some reports may have missing invoices, values etc.).

Hands-On Session User Guide| Johann Zapf | Date: 30.07.2025 | CLASSIFICATION
sovanta America Inc. | 18 Campus Blvd, Suite 100| Newtown Square, PA 19073 |+1 (215) 634-9840 | info@sovanta.com

sovanta.com

Hands-On Challenge 2 User Guide | Johann Zapf & Daniel Jeckel | Date: 19.08.2025 | CLASSIFICATION
sovanta America Inc. | 18 Campus Blvd, Suite 100| Newtown Square, PA 19073 |+1 (215) 634-9840 | info@sovanta.com

sovanta.com