CloudBees Agentic Software Engineer Take-Home Assessment

Timebox: ~1 hour

Tools: You are encouraged to use a coding assistant (e.g., GitHub Copilot, ChatGPT, Claude, etc.). In the interview, we'll ask you to reflect on your experience: what worked, what didn't, and where it helped or hindered.

Objective

This exercise is designed to be a conversation driver in the hiring process and Cloudbee's has a remote work posture so we have to drive change sometimes through written word

- Prototype agentic workflows with modern frameworks.
- Translate product concepts into working demos.
- Reason about autonomy, reliability, and safety in LLM-driven flows.
- Use coding assistants as part of your workflow.

Instructions

1. Choose an Agentic Framework or Tool

Select one of the following (or another open-source option you prefer):

- LangChain
- o CrewAI
- o Agno
- MCP-enabled environments (e.g., Goose, Claude Desktop)

2. Task: Prototype a Simple Agentic Flow

Build a small demo that shows how an **Al agent can autonomously interact with tools or APIs**. For example, pick one of these scenarios (or define your own):

- An agent that queries a public API (e.g., weather, GitHub issues) and summarizes results for a developer.
- A multi-step flow where an agent retrieves documentation, reasons over it, and produces a suggested action (e.g., config update, deployment step).

- A small "team of agents" where one agent retrieves information and another validates or reformats it before output.
- 3. Keep it lightweight but demonstrate autonomy, reasoning, and tool usage.

4. Deliverables

Please provide:

- o **Code**: Your implementation (script, notebook, or small project).
- README.md: Short explanation (1–2 paragraphs) describing:
 - What workflow you built and why.
 - How to run it.
 - Any assumptions or limitations.
- Reflection (5–10 sentences): Share your experience using a coding assistant.
 Specifically:
 - Did it meaningfully help design the agent flow?
 - Did it generate incorrect or unsafe suggestions?
 - Where was it most/least useful?

Submission

Share a link(https://github.com/jburtbee) to your repo/branch and send it prior to the next interview session.

Tip: Focus on creativity and clarity — we're not looking for production systems, just a well-scoped demonstration of agentic reasoning in action.