

Lab 091: Copilot Cloud Agent and Code Review: From Issue to PR

Level: L300 Journey: copilot Time: ~90 min Cost: Paid optional path; complete free simulation included

info "Free-first design" Complete the guided exercise with Copilot Free or the included simulation. Paid features are optional and explicitly labeled.

tip "AI Credit impact" Low for guided work; medium/high for agentic or repeated runs.

Prefer automatic model selection, plan before acting, keep context focused, and avoid unnecessary parallel sessions.

What You'll Learn

Trace the issue-to-PR cloud-agent lifecycle Review firewall, permissions, and repository instructions Evaluate Copilot review comments Estimate AI Credits and Actions-minute impact GH-300 alignment

Use Copilot features (25?30%) · Data and architecture (10?15%). This mapping follows the GH-300 curriculum snapshot dated 2026-08-07. The official outline may retain older product wording such as ?Copilot Edits?; this lab teaches the current product experience and calls out that difference.

Concept Map

[diagram or code sample]

Hands-on Exercise

Step 1: Free simulation: triage the issue

Use the supplied scenario below. Convert a vague issue into acceptance criteria, identify repository instructions, and choose a least-privileged environment.

Step 2: Free simulation: inspect the session

Review the synthetic timeline: plan, commits, checks, firewall requests, AI Credit band, and review findings. Decide what a human must approve.

Step 3: Free simulation: review the PR

Classify each Copilot comment as actionable, uncertain, or incorrect. Code review is advisory and does not replace required human approval by default.

Step 4: Optional paid path

If your organization enables Copilot cloud agent, assign the issue, monitor the live session, review the generated PR, request Copilot review, and record actual AI Credits and Actions minutes.

Complete Free Simulation

Use this synthetic session record; no Copilot license or organization is required.

Time | Event | Evidence | Human decision | 09:00 | Issue assigned | Acceptance criteria mention tests and no new dependency | Accept scope | 09:03 | Plan proposed | Changes API, tests, and docs | Reject an unrelated database migration | 09:08 | Firewall request | Requests pypi.org for an unnecessary package | Deny; use the standard library | 09:15 | Commit 1 | Implements endpoint, two tests pass | Continue | 09:22 | Commit 2 | Adds validation, all six tests pass | Inspect edge cases | 09:28 | PR opened | AI Credit band: medium; Actions: 7 minutes | Request review | 09:30 | Copilot review | One actionable null check, one speculative performance note | Fix the null check; document why the other is deferred |

Write a short review containing:

1. The least-privileged permissions and network allowlist. 2. The rejected scope and why it was rejected. 3. Which review comment you would apply. 4. A cost record: medium AI Credits, 7 Actions minutes, and the optimization you would try next.

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: [.github/ISSUE_TEMPLATE/agent-task.yml](#)

name: Agent task description: A bounded issue suitable for agent execution body: - type:

textarea id: goal attributes: label: Goal validations: required: true - type: textarea id:

acceptance attributes: label: Acceptance criteria validations: required: true

Supporting file: [cost_estimate.csv](#)

task,runs,credits_per_run,max_credits issue-to-pr,3,1,3

Supporting file: [firewall_allowlist.txt](#)

OutdoorGear workshop fixture. Policy-safe local sample.