Sprint Review and Retrospective: SNHU Travel MVP

Bradley D. Saucier

Southern New Hampshire University

CS 250: Software Development Lifecycle

Professor Hirpara

October 19, 2025

Introduction

This Sprint Review and Retrospective explains how a Scrum-Agile approach enabled timely delivery and reduced risk for the SNHU Travel Minimum Viable Product (MVP), a first release with only the core features needed to learn. The team ran five one-week sprints to deliver a public booking flow for a curated package with secure payment and confirmation. The Definition of Done (DoD) required peer review, automated tests, Product Owner acceptance, no performance regressions, and automated security checks. Events followed a fixed cadence with strict timeboxes, and the ELMO rule limited off-topic discussion to protect focus.

Applying Roles

Roles were clear and enforced. The Client was Amanda. The Product Owner (PO) was Christy. The Scrum Master was Ron. The Developer was Nicky. The Tester was Brian. The PO translated interviews and survey findings into small, testable items tied to a Product Goal. The Scrum Master protected timeboxes and the Sprint Goal and removed impediments. Developers, including the testing specialty, created a usable increment each sprint and upheld quality through the DoD. Example: when an external department requested an ad hoc report mid-sprint, the Scrum Master redirected the request to the Product Backlog and preserved the Sprint Goal focused on the payment path. This single team with shared accountability matches the Scrum Guide and reduces handoffs that slow delivery (Schwaber and Sutherland, 2020).

Completing User Stories

The team used thin vertical slices with INVEST traits on every story. INVEST means
Independent, Negotiable, Valuable, Estimable, Small, and Testable. Acceptance criteria were
explicit and included accessibility. Example user story: Cruise Preference Toggle. Acceptance

criteria required that the toggle be labeled, keyboard operable, show a visible focus indicator, confirm the change within one second, persist the value, and reflect in the downstream feed. These criteria let the developer build the feature in one sprint and let the tester verify it objectively. The Scrum Guide requires a usable increment every sprint, and the Web Content Accessibility Guidelines (WCAG) 2.2 provide testable criteria that make acceptance objective and inclusive (Schwaber and Sutherland, 2020; World Wide Web Consortium, 2023).

Handling Interruptions

The team protected the Sprint Goal and adapted scope when needed. Mid-sprint, a payment vendor issue threatened flow. The PO and Developers swapped in a pre-sized story of similar effort and moved the blocked item back to the Product Backlog. Continuous Integration (CI), an automated process that builds and tests code on each change, guarded releasability while the team adjusted. Small batches and rapid feedback reduced risk and preserved delivery pace. This approach aligns with DORA research that links healthy team practices to stronger delivery outcomes, including high-trust cultures being 1.8 times more likely to be high performers (DORA, 2023).

Communication

Scrum events created a simple, repeatable rhythm. The Daily Scrum is a 15-minute event for Developers to inspect progress toward the Sprint Goal and adjust the plan for the next 24 hours (Schwaber and Sutherland, 2020). The team walked the board from right to left, which means they discussed items closest to Done first and swarmed to finish them before starting new work. Example: when the payment story was one step from Done, the team paused new starts and helped close it. Asynchronous communication supported speed and clarity. A tester email pattern

requested explicit failure rules, clear error text, and accessibility announcements, with a reply deadline. A developer pattern requested the smallest valuable slice, Given-When-Then acceptance criteria, priority rank, and links to tests and CI steps before starting. These patterns prevented blockers and ensured shared understanding (Schwaber and Sutherland, 2020; Scrum.org, n.d.).

Organizational Tools

Tools and artifacts supported transparency and quality. A visual board with Work in Progress (WIP) limits kept the focus on finishing before starting. CI ran security and performance checks on every change and enforced the DoD. For complex rules, the tester used decision tables to expose gaps and drive coverage, as recommended in ISTQB CTFL v4.0. Example test evidence: TC-001 Verify Profile Preferences Save and Persist. Expected results included a visible My Profile link after sign in, a confirmation message within one second, persistence across sessions, clear inline errors for invalid input, and verified keyboard focus order. These artifacts made progress and quality visible to the whole team and to stakeholders (International Software Testing Qualifications Board, 2023).

Evaluating the Agile Process

Scrum was the right choice for this five-week MVP with Payment Card Industry (PCI) constraints and third-party integrations. Weekly integration and stakeholder feedback exposed problems in week one, not week five. Small, tested slices and CI reduced change failure risk.

DORA research reports that teams with high-trust, low-blame cultures are 1.8 times more likely to be high performers, which aligns with the team's disciplined habits and clear ownership (DORA, 2023). Encoding WCAG 2.2 acceptance criteria in stories from the start ensured a

secure, accessible, and reliable booking experience that met the deadline (World Wide Web Consortium, 2023). For this scope, schedule, and risk profile, Scrum-Agile outperformed a Waterfall approach that would have delayed integration and concentrated risk at the end.

References

- DORA. (2023). 2023 Accelerate state of devops report. DevOps Research and Assessment. https://dora.dev/research/2023/
- International Software Testing Qualifications Board. (2023). Certified tester foundation level syllabus v4.0. https://www.istqb.org/certifications/certified-tester-foundation-level
- Schwaber, K., and Sutherland, J. (2020). The 2020 scrum guide. Scrum.org.

 https://scrumguides.org/docs/scrumguide/v2020/2020-Scrum-Guide-US.pdf
- Scrum.org. (n.d.). What is a daily scrum? https://www.scrum.org/resources/what-is-a-daily-scrum
- World Wide Web Consortium. (2023). Web content accessibility guidelines (WCAG) 2.2. https://www.w3.org/TR/WCAG22/