**1. Overview**

*The Hotel-Reservations-Web project use Scrum, focusing on iterative development of features. Sprints will ensure incremental delivery, flexibility, and stakeholder alignment.*

**2. Scrum Roles**

* Product Owner (PO):
* Prioritizes the Product Backlog based on business goals (e.g., AI recommendations, security).
* Represents stakeholders (users, admins, API partners) and defines acceptance criteria.
* Scrum Master (SM):
* Facilitates ceremonies, removes blockers (e.g., API integration delays), and ensures adherence to Scrum practices.
* Development Team:
* Cross-functional team (backend: Laravel/MySQL; frontend: Blade/Tailwind; AI integration) delivering sprint goals.

**3. Artifacts**

* Product Backlog:
* Prioritized list of requirements (e.g., FR-2.1.1 Search Bar, FR-2.2.3 Security..).
* Refined via stakeholder feedback and competitive analysis.
* Sprint Backlog:
* Subset of Product Backlog items selected for a sprint (e.g., “Implement AI recommendation engine” in Sprint 2).
* Increment:
* Shippable features after each sprint (e.g., functional user dashboard, integrated hotel APIs).

**4. Ceremonies**

1. Sprint Planning (1–4 hours):

* PO and team select backlog items for the sprint (e.g., “User Registration & Authentication”).
* Define tasks (e.g., AI implementation, email verification).

1. Daily Stand-up (15 mins):

* Team syncs on progress (e.g., “API integration testing underway”).

1. Sprint Review (2 hours):

* Demo features to stakeholders (e.g., AI search prototype).
* Gather feedback for backlog refinement.

1. Retrospective (1 hour):

* Reflect on sprint performance (e.g., improve testing for GDPR compliance).