# **Standard Operating Procedure (SOP)**

# **Sprint Planning and Execution Process**

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## **1. Document Control**

* **Document ID:** SOP-PM-001
* **Version:** 1.0

## **2.** Objective of SOP

This Standard Operating Procedure (SOP) establishes a consistent and effective process for Sprint Planning and Execution within **Webtractions'** web application development projects. The purpose is to ensure predictable delivery of high-quality software increments, foster team collaboration, optimize resource allocation, and maintain alignment with project goals and stakeholder expectations. Adherence to this SOP facilitates efficient agile development, leading to improved project predictability and successful application delivery.

## **3. Scope**

This SOP applies to all Project Managers, Team Leads, Product Owners, Development Teams, and Quality Assurance (QA) personnel involved in the planning, execution, and review of development sprints for Webtractions' web application projects.

## **4. Definitions**

* **Sprint:** A fixed-length timebox (typically 1-4 weeks) during which a "Done," usable, and potentially releasable product increment is created. At Webtractions, standard sprints are **2 weeks** in duration.
* **Product Backlog:** An ordered list of everything that might be needed in the product and is the single source of requirements for any changes to be made to the product.
* **Sprint Backlog:** The set of Product Backlog items selected for the Sprint, plus a plan for delivering the product Increment and realizing the Sprint Goal.
* **User Story:** A short, simple description of a feature told from the perspective of the person who desires the new capability, usually in the format: "As a [user role], I want to [goal] so that [reason]."
* **Definition of Done (DoD):** A shared understanding of what it means for work to be complete and releasable.
* **Definition of Ready (DoR):** A shared understanding of what criteria a Product Backlog item must meet before it can be pulled into a Sprint.
* **Daily Scrum (Stand-up):** A 15-minute time-boxed event for the Development Team to synchronize activities and create a plan for the next 24 hours.
* **Sprint Review:** An informal meeting held at the end of the Sprint to inspect the Increment and adapt the Product Backlog if needed.
* **Sprint Retrospective:** An opportunity for the Development Team to inspect itself and create a plan for improvements to be enacted during the next Sprint.
* **Velocity:** A measure of the amount of work a team can accomplish in a single Sprint.

## **5. Roles and Responsibilities**

* **Project Manager/Team Lead:**
  + Facilitates Sprint Planning, Daily Scrums, Sprint Reviews, and Retrospectives.
  + Ensures adherence to agile principles and this SOP.
  + Removes impediments for the Development Team.
  + Monitors sprint progress and team velocity.
  + Communicates sprint status to stakeholders.
* **Product Owner:**
  + Manages and prioritizes the Product Backlog.
  + Ensures Product Backlog items are clear, concise, and meet the Definition of Ready (DoR).
  + Accepts or rejects completed work at the Sprint Review.
  + Represents stakeholder interests.
* **Development Team:**
  + Selects Product Backlog items for the Sprint.
  + Breaks down selected items into tasks.
  + Self-organizes to complete the Sprint Backlog.
  + Adheres to the Definition of Done (DoD).
  + Participates actively in all sprint ceremonies.
* **Quality Assurance (QA) Personnel:**
  + Collaborates with the Development Team on testing strategies.
  + Develops and executes test cases for Sprint Backlog items.
  + Ensures quality and adherence to acceptance criteria.
  + Reports and verifies bugs according to the Bug Reporting SOP.

## **6. Procedure**

### **6.1. Pre-Sprint Activities (Continuous)**

1. **Product Backlog Refinement (Product Owner, Team Lead, Dev Team):**
   * **Frequency:** Ongoing, typically 1-2 sessions per sprint.
   * **Objective:** To ensure Product Backlog items are detailed, estimated, and ordered.
   * **Steps:**
     + Product Owner presents upcoming items.
     + Development Team asks clarifying questions, estimates effort (e.g., using story points), and identifies dependencies.
     + Items are refined to meet the Definition of Ready (DoR):
       - Clearly defined user story and acceptance criteria.
       - Sufficient detail for development and testing.
       - Estimated effort.
       - Dependencies identified and addressed.
     + Product Owner re-prioritizes based on new information.

### **6.2. Sprint Planning Meeting**

1. **Preparation (Product Owner, Team Lead):**
   * Product Owner reviews the top-priority Product Backlog items, ensuring they meet DoR.
   * Team Lead prepares the meeting agenda and ensures all necessary tools (e.g., Jira board, whiteboards) are ready.
2. **Meeting Execution (Team Lead facilitates):**
   * **Timebox:** Max 4 hours for a 2-week sprint.
   * **Attendees:** Product Owner, Team Lead, Development Team, QA.
   * **Agenda:**
     + **Sprint Goal Definition:** Product Owner proposes a Sprint Goal, and the team collaborates to finalize it.
     + **Product Backlog Selection:** Development Team pulls items from the top of the Product Backlog into the Sprint Backlog, committing to what they believe they can "Done" within the sprint, considering team velocity.
     + **Task Breakdown:** For each selected Product Backlog item, the Development Team breaks it down into smaller, actionable tasks (e.g., "Frontend development," "Backend API," "Database schema," "Write unit tests," "Write integration tests," "QA testing").
     + **Initial Task Estimation:** Tasks are estimated (e.g., in hours) to provide granular progress tracking.
     + **Capacity Planning:** The team confirms they have the capacity to complete the selected work, considering holidays, planned leave, and other commitments.
   * **Output:** Defined Sprint Goal, committed Sprint Backlog with tasks, updated Jira board.

### **6.3. Sprint Execution**

1. **Daily Scrum (Team Lead facilitates):**
   * **Frequency:** Daily, at the same time and place.
   * **Timebox:** 15 minutes.
   * **Attendees:** Development Team, Team Lead, Product Owner (optional, for listening).
   * **Agenda (Each team member answers):**
     + What did I do yesterday to help the Development Team meet the Sprint Goal?
     + What will I do today to help the Development Team meet the Sprint Goal?
     + Are there any impediments blocking me or the Development Team from meeting the Sprint Goal?
   * **Output:** Updated understanding of sprint progress, identified impediments.
   * **Team Lead Action:** Address identified impediments promptly.
2. **Development and Testing (Development Team, QA):**
   * Development Team works on Sprint Backlog tasks, adhering to coding standards and the Definition of Done (DoD).
   * QA collaborates closely, writing test cases, performing functional, integration, and regression testing as features are developed.
   * Code reviews are conducted for all completed features/bug fixes (refer to SOP-DEV-002: Code Review Process).
   * Progress is updated daily in the BTS (e.g., Jira).
3. **Mid-Sprint Review (Optional, Team Lead):**
   * **Frequency:** Mid-way through the sprint (e.g., end of week 1 for a 2-week sprint).
   * **Objective:** To assess progress, identify potential risks to the Sprint Goal, and make adjustments if necessary.
   * **Attendees:** Team Lead, Product Owner, Development Team.

### **6.4. Sprint Review**

1. **Preparation (Development Team, Product Owner, Team Lead):**
   * The Development Team ensures the increment is "Done" according to the DoD and ready for demonstration.
   * Product Owner prepares for feedback collection from stakeholders.
2. **Meeting Execution (Team Lead facilitates):**
   * **Timebox:** Max 2 hours for a 2-week sprint.
   * **Attendees:** Product Owner, Team Lead, Development Team, QA, Stakeholders (e.g., Sales, Marketing, Senior Management).
   * **Agenda:**
     + **Demonstration:** Development Team demonstrates the "Done" increment to stakeholders.
     + **Feedback Collection:** Stakeholders provide feedback on the increment.
     + **Product Backlog Adaptation:** Product Owner discusses the Product Backlog as it stands, potential next Sprints, and gathers input for future refinement.
     + **Progress Discussion:** Team Lead presents key metrics (e.g., burndown chart, velocity).
   * **Output:** Feedback on the increment, potential adjustments to the Product Backlog, shared understanding of project progress.

### **6.5. Sprint Retrospective**

1. **Meeting Execution (Team Lead facilitates):**
   * **Timebox:** Max 1.5 hours for a 2-week sprint.
   * **Attendees:** Development Team, Team Lead, Product Owner (optional, for listening).
   * **Objective:** To inspect how the last Sprint went with regard to people, relationships, process, and tools, and identify and plan improvements.
   * **Agenda (Common format: "What went well?", "What could be improved?", "Actionable items"):**
     + **Set the Stage:** Create a safe environment for open discussion.
     + **Gather Data:** Brainstorm events and feelings from the Sprint.
     + **Generate Insights:** Discuss patterns, root causes, and lessons learned.
     + **Decide What to Do:** Identify 1-3 concrete, actionable improvements for the next Sprint.
     + **Close the Retrospective:** Summarize actions and assign owners.
   * **Output:** A list of actionable improvements to be implemented in the next Sprint.

## **7. Tools and Resources**

* **Project Management/BTS:** Jira (primary tool for Product Backlog, Sprint Backlog, task tracking, and reporting).
* **Communication:** Slack (for daily communication, quick questions, impediment alerts).
* **Documentation:** Confluence (for detailed documentation, meeting notes, technical specifications).
* **Version Control:** Git (GitHub/GitLab/Bitbucket for code repositories).
* **CI/CD:** Jenkins/GitHub Actions/GitLab CI (for automated builds, tests, and deployments).

## **8. Metrics for Monitoring (Project Manager/Team Lead)**

* **Sprint Burndown Chart:** Tracks remaining work in a sprint against time.
* **Team Velocity:** Average amount of work (story points) completed per sprint.
* **Lead Time/Cycle Time:** Time taken from idea to delivery (for individual items).
* **Bug Count/Resolution Rate:** Tracked via BTS.
* **Sprint Goal Achievement:** Percentage of sprints where the Sprint Goal was met.

## 9. **Revision History**

| **Version** | **Date** | **Description** |
| --- | --- | --- |
| 1.0 | [Date] | Initial Draft |