

# Agile Development Cheat Sheet

## Agile

- Individuals and interactions over processes and tools.
- Working software over comprehensive documentation.
- Customer collaboration over contract negotiation.
- Responding to change over following a plan.

## Extreme Programming (XP)

- The Planning Game
- Small Releases
- System Metaphor
- Simple Design
- Continuous Testing
- Refactoring
- Pair Programming
- Collective Code Ownership
- Continuous Integration
- 40-Hour Work Week
- On-site Customer
- Coding Standards

## Scrum

Scrum is a simple, agile "inspect and adapt" framework that has three roles, three ceremonies, and three artifacts designed to deliver working software in Sprints, usually 30-day iterations.

- Roles
  - Product Owner (responsible for the business value of the project)
  - ScrumMaster (ensures that the team is functional and productive)
  - Team (self-organized)
- Ceremonies
  - Sprint Planning (4 hours commitment, 4 hours estimating, NO task assignment)
  - Sprint Review (2 hours demo, 2 hours retrospective)
  - Daily Scrum Meeting (15 minutes; not a status meeting, rather a daily focus)
- Artifacts
  - Product Backlog (customer requirements prioritized by business value)
  - Sprint Backlog (specific development tasks required to implement a feature)
  - Burndown Chart (shows the cumulative work remaining in a Sprint, day-by-day)

## Scrum + XP

Scrum has been employed successfully as a management wrapper for Extreme Programming engineering practices. Scrum provides the agile management mechanisms; Extreme Programming provides the integrated engineering practices.

## Business Value

$f(\text{Cost, Time, Scope, Quality})$