Extreme Programming Summary

# Purpose

The main purpose of XP is to rapidly develop high-quality software for the customer in the fastest way.

There are 12 core practices of XP:

* **The Planning Game**: Write user stories matched by a list of features and decide the order of implementation as well as the time for each story.
* **Small Release**: Start with the smallest but useful feature, frequently adding the features.
* **System Metaphor**: Easy naming convention.
* **Simple Design**: Do it simple, do what’s needed today.
* **Continuous Testing**: Unit tests and acceptance tests.
* **Refactoring**: Delete any duplicated code.
* **Pair Programming**: Two developers use the same computer to review the code.
* **Collective Code Ownership**: Everyone in the team is the programmer.
* **Continuous Integration**: Daily integration, daily tests.
* **40-Hour Work Week**: Be careful with overtime.
* **On-site Customer**: Continue to meet with customers/clients.
* **Coding Standards**: Everyone codes to the same standards.

XP emphasizes that all the roles(Managers, Customers, Developers, etc.) are equal partners in a team and XP is famous for its simple rules.

# XP Roles

## Tracker

* Calculates the project velocity
* Checks in with how the programmers are doing
* Take action if the project is going off track. For example, meet with the client or ask another programmer to help

## Manager

* Schedules meetings
* Records meeting minutes
* Ensures proper process for meetings are followed

## Programmer

* Defines tasks from user stories
* Estimates duration of user stories and tasks
* Implements the tasks and create corresponding unit tests

## Tester

* Implements and runs tests (excluding unit tests)
* Graphs test results
* Notifies others when a test fails

## Doomsayer

* Monitors project status
* Looks ahead to identify any future issues
* Notifies others when a problem or challenge arises
* Notifies others of the risks involved

# Iteration Summary

* Project is completed over the course of several iterations fixed in periods of 1-3 weeks
  + Iterations usually remain the same fixed period.
* Begins with a client meeting to plan for the client’s expectations from the iteration.
  + Create individual tasks from these expectations and user stories
  + Tasks are then accepted by each developer and a time estimate is created for each
* Programming begins with pair-programming, a test-first system is used
* At the end of the iteration a functioning system is presented to the client, not complete in earlier iterations, however, it is all functioning without errors.
* The process is repeated and the final iteration is a completed product for the client.