Agile Development Overview

A Tour of Streamlined Development Processes and Practices

Development processes organise the activities and products of software development according to a philosophy and set of practices. The software quality, reality of the schedule, repeatability of the practices, and so on have not always been either evident or in proportion to the effort invested in many traditional documented methods.

Agile development processes have captured the imagination and support of software developers and managers, offering an alternative discipline to either bureaucratic or chaotic processes. They are disciplined but more streamlined than traditional, more heavyweight approaches. Agile development covers a spectrum of development approaches, including Extreme Programming (XP), Scrum, Lean Software Development and DSDM.

This seminar offers an overview of the motivation, principles and practices found in a number of agile development processes, as well as a brief tour of some key agile processes.

Objectives

- Outline the motivation for agile development processes
- Highlight the features common to agile development processes
- Describe representative agile development processes and common practices
- Address practical concerns, including selection and adoption of practices

Audience

The seminar is suitable for anyone involved in software development who wishes to gain an understanding of agile development processes, including software developers, project managers and technical managers.

Content

Development Processes Pitfalls of sequential processes · The Waterfall lifecycle · Iterative and incremental development · The (Rational) Unified Process (RUP) · Agile development processes

Agile Processes The Agile Manifesto · Balancing cost, time, quality and scope · Delivery of value Common features of agile processes · Popularised agile processes · Adapting existing processes

Scenario-Driven Development Visibility of requirements · Use cases and user stories · Scenario-driven increments · Prioritisation, risk and complexity · Operational requirements

Test-Driven Development Programmer testing · Automated tests · Testing as a design activity · Unit-level to system-level testing · Unit testing frameworks · Introducing TDD into a process

Lean Software Development Principles and tools · Eliminate waste · Amplify learning · Decide as late as possible · Deliver as fast as possible · Empower the team · Build integrity in · See the whole

Scrum Roles in Scrum · Self-organising team · Product backlog and product owner · Sprint backlog and planning meeting · Sprint management · Daily scrum meeting · Sprint review

Extreme Programming XP1 and XP2 · Primary and corollary practices · Sit together · Whole team · Informative workspace · Energized work · Pair programming · Stories · Weekly cycle · Quarterly cycle · Slack · Ten-minute build · Continuous integration · Test-first programming · Incremental design · Incremental deployment · Team continuity · Shared code · Single code base

DSDM Focus and history of the Dynamic Systems Development Method · DSDM principles · DSDM phase model · DSDM sequential and iterative phases

Becoming More Agile Big Bang versus stealth adoption · Personal practices · Modelling and architecture · Exploratory prototyping· Code issues · Use of automation · Release granularity

Additional Details

Duration 1 day

Setup Projection facilities for a PC · Whiteboards and/or flip charts

Contact Kevlin Henney · kevlin@curbralan.com · Curbralan Limited · +44 117 942 2990