

Samman Coaching Topics (21 Mar 2025)

Pick from the following sessions. Each session focuses on a critical skill for AI-assisted Agile development. More sessions coming soon.

Each session focuses on a critical skill for AI-assisted Agile development. Sessions are structured to provide hands-on learning, ensuring your team doesn't just understand AI, but actively integrates it into their workflow. Here is a summary of current topics:

Foundations of AI-Driven Agile Development (Beginner Level)

These sessions introduce core AI concepts and how they enhance Agile workflows.

AI Meets Agile

The Challenge: AI is disrupting software development—but without strong Agile practices, it can introduce more chaos than clarity. The Opportunity: Teams that integrate AI effectively can accelerate Agile workflows while maintaining software quality.

You'll Learn:

- Where AI fits in Agile workflows
- AI-assisted backlog refinement, retrospectives, and sprint planning
- AI-generated insights for team performance and process improvement
- The risks of AI-driven Agile and how to mitigate them

Mob Session:

- Use AI to analyze and improve an Agile backlog
- Experiment with AI-assisted standup summaries and sprint planning
- Generate retrospective insights using AI tools

Story Writing with AI

The Challenge: Poorly defined user stories lead to misalignment, rework, and wasted effort. The Opportunity: AI can help teams write clearer, more structured stories, ensuring better collaboration between business and development.

You'll Learn:

- The structure of effective user stories (As a... I want... So that...)
- AI-assisted story writing & refinement
- Identifying missing details and edge cases with AI

Mob Session:

- Take a vague requirement and refine it into a structured user story
- Use AI to suggest missing details and improve clarity
- Generate alternative versions and discuss trade-offs

Behavior-Driven Development (BDD) with AI

The Challenge: Poor communication between business and technical teams leads to unclear requirements. The Opportunity: AI can generate and validate BDD scenarios, ensuring business intent is accurately translated into code.

You'll Learn:

- BDD fundamentals and the Given-When-Then format
- AI-assisted BDD scenario generation
- Refining scenarios with AI-driven examples • Automating BDD test generation with AI

Mob Session:

- Write a BDD feature file for an existing system
- Use AI to generate additional BDD scenarios
- Implement one scenario as an automated test

Value Stream Mapping with AI

The Challenge: Teams often don't know where their biggest inefficiencies are. The Opportunity: AI can help analyze bottlenecks, cycle times, and work distribution to improve development flow.

You'll Learn:

- What is Value Stream Mapping?
- Identifying value-adding vs. non-value-adding activities
- AI-powered flow analysis and bottleneck detection
- Using AI for cycle time and work-in-progress (WIP) analysis

Mob Session:

- Create a value stream map for an existing Agile process
- Use AI to identify inefficiencies in team workflows
- Run "what-if" simulations with AI to optimize delivery

Integrating AI into Agile Analysis and Development (Intermediate Level)

These sessions focus on deeper AI-assisted Agile practices, improving requirements, collaboration, and code quality.

Defining Acceptance Criteria with AI

The Challenge: Vague acceptance criteria lead to misunderstandings, scope creep, and missed expectations. The Opportunity: AI can refine acceptance criteria, ensuring clear, testable definitions.

You'll Learn:

- Why clear acceptance criteria matter
- AI-assisted acceptance criteria generation
- Aligning AI-generated criteria with business goals
- AI-enhanced consistency checking

Mob Session:

- Write acceptance criteria for a user story
- Use AI to generate and refine testable acceptance criteria
- Compare AI-generated criteria to human-written ones

Specification by Example with AI

The Challenge: Software often fails to meet business needs because of ambiguous requirements. The Opportunity: AI can enhance Specification by Example, generating real-world test cases to validate functionality.

You'll Learn:

- What is Specification by Example?
- AI-generated examples for better requirements
- AI-assisted scenario validation
- Using AI to improve domain models

Mob Session:

- Convert a feature request into specifications with examples
- Use AI to generate additional test cases
- Validate AI-generated specifications with stakeholders

Say What Before How

The Challenge: Teams often jump to solutions before understanding the real problem. The Opportunity: AI can help clarify intent, ensuring teams define what they need before deciding how to implement it.

You'll Learn:

- Why focusing on "what" before "how" improves clarity
- AI-driven requirement refinement
- Mapping business intent to technical execution

Mob Session:

- Take an existing feature and restate it purely in terms of what (not how)
- Use AI to clarify intent before diving into implementation
- Generate alternative ways to solve the problem before coding

Hosting LLMs Locally

The Challenge: Relying on cloud-based AI tools creates security, privacy, and compliance challenges. The Opportunity: Running your own AI models gives you full control over data and integrations.

You'll Learn:

- How to set up and run your own LLM (LLaMA, Mistral, GPT-4) locally
- What hardware & software you need for AI self-hosting
- How to fine-tune AI models for your team's specific needs
- How to integrate locally hosted AI into your development workflow

Mob Session:

- Set up and configure a locally hosted LLM
- Optimize prompts for a self-hosted AI model
- Integrate AI into an existing development pipeline

AI-Driven Technical Practices (Advanced Level)

These sessions focus on AI-assisted coding, governance, and automation.

Pair Programming with AI

The Challenge: Developers who don't learn how to collaborate with AI will fall behind. The Opportunity: Those who master AI-assisted pair programming will become exponentially more effective.

You'll Learn:

- How to prompt AI effectively for coding assistance
- When to trust AI-generated code—and when to double-check
- How to collaborate with AI for problem-solving, debugging, and refactoring
- Best practices for code quality, testing, and reviewing AI-generated code

Mob Session:

- Work through a coding challenge using AI as a pair programming partner
- Evaluate AI-generated solutions for correctness, efficiency, and maintainability
- Refactor AI-assisted code using best practices

Domain-Driven Design (DDD) with AI

The Challenge: Large, complex codebases become unmanageable without a clear domain model. The Opportunity: AI can help analyze complex domains, suggest bounded contexts, and detect inconsistencies.

You'll Learn:

- Core concepts of DDD: bounded contexts, aggregates, entities
- AI-assisted domain modeling
- Using AI to detect inconsistencies in domain models

Mob Session:

- Model a real-world problem using DDD principles
- Use AI to analyze and suggest improvements to the model
- Generate sample domain events with AI

Establishing AI Coding Rules & Governance

The Challenge: Without structure, AI will generate inconsistent, unmaintainable code. The Opportunity: Teams that set clear AI coding rules will ensure high-quality, reusable code.

You'll Learn:

- How to define AI coding rules and team-wide standards
- Using AI-assisted linting and static analysis to catch errors
- Setting up automated AI-powered code reviews
- Defining AI governance policies to maintain best practices

Mob Session:

- Create a custom AI coding standard for your team
- Implement AI-assisted linting and static analysis
- Review AI-generated code using automated tools

Choosing the Right Session Level

Since some sessions build on foundational skills, I recommend:

- Attending a beginner session before taking an intermediate session
- Attending an intermediate session before taking an advanced session

This ensures progressive learning and maximum benefit. Each session builds on the last, ensuring a progressive learning journey from Agile analysis to AI-assisted coding and governance. Your team won't just learn about AI. You'll master how to work with it. Which session will you start with?

Samman Coaching Sessions are available from The Passionate Programmer - <https://passprog.com>