

How AI is reshaping Software Engineering

An inside look

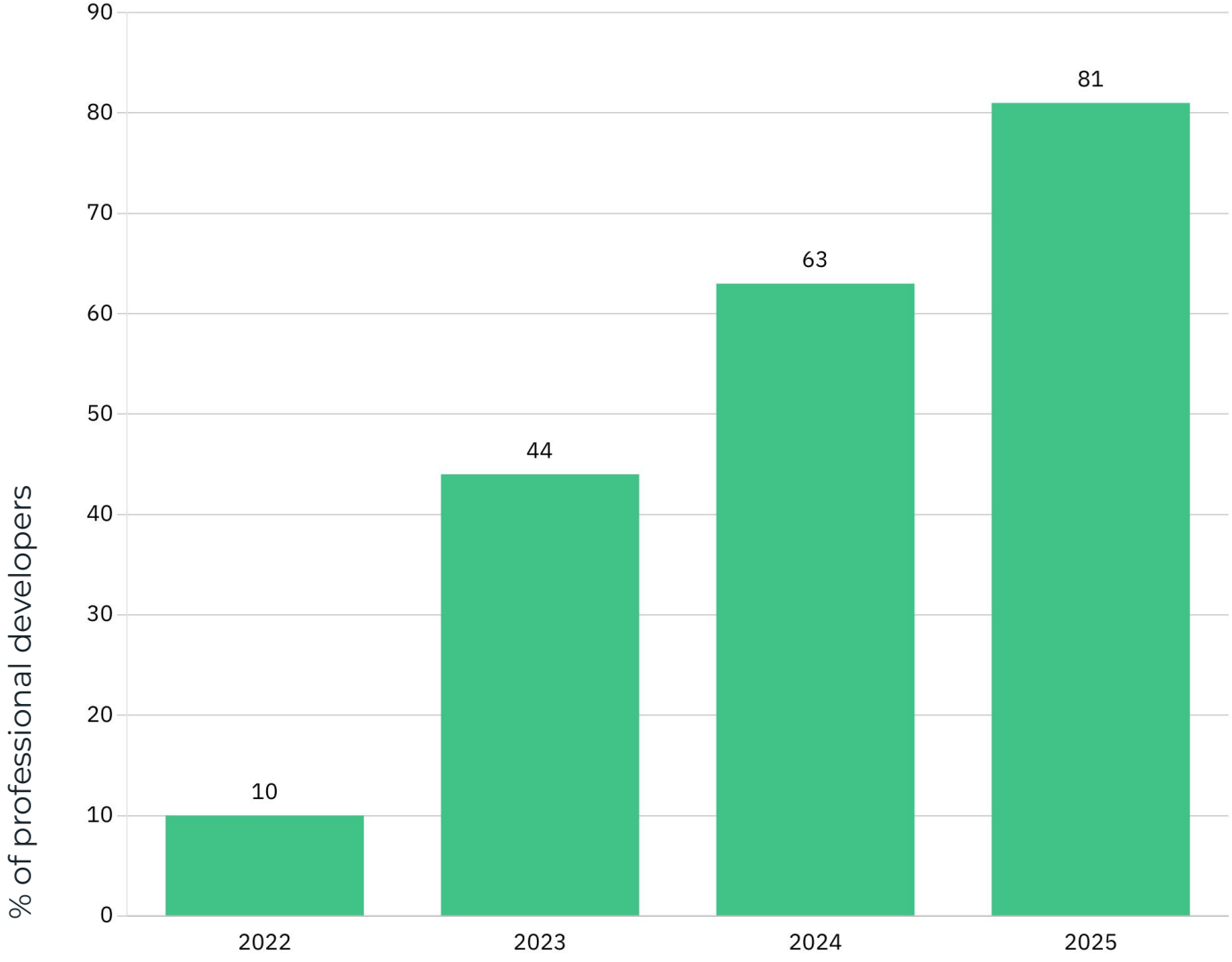


Kabisa
Software Artisans



**AI is rapidly reshaping
software engineering**

Use of AI tools in development process



Source: <https://survey.stackoverflow.co/>

Vibe coding

"It's not really coding - I just see things, say things, run things, and copy-paste things, and it mostly works."



Business Tech News: Zuckerberg Says AI Will Replace Mid-Level Engineers Soon

By [Gene Marks](#), Contributor. © I write about tech that impacts my small busin...

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Mark Zuckerberg, CEO of Meta (Photo by Alex Wong/Getty Images)
GETTY IMAGES

Elon Musk says AI has taken hard work out of coding, predicts seismic shift in tech jobs

Elon Musk predicts AI will transform coding jobs, making software writing more like recreational painting than a functional task, as it has already removed much of the drudgery involved.

Aman Gupta

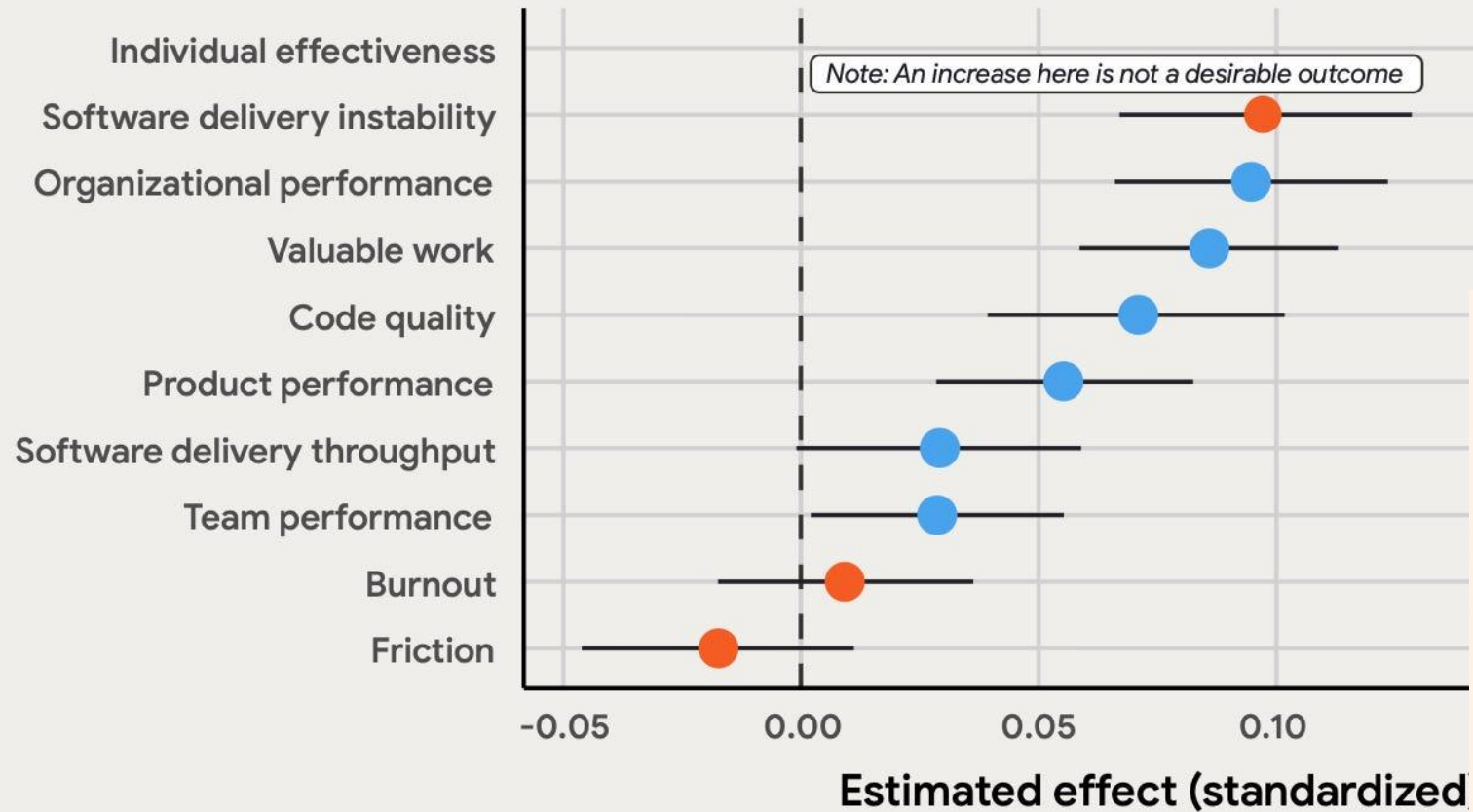
Updated • 4 Aug 2025, 08:58 AM IST



Elon Musk has predicted coding will become a recreational job in the future.(REUTERS)

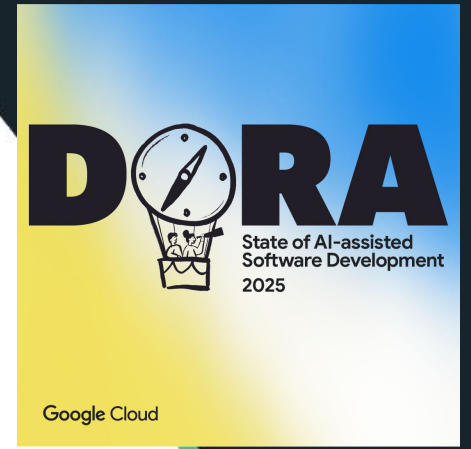
The landscape of AI's impact

Estimated effect of AI adoption on key outcomes, with 89% credible intervals



For outcomes in orange, such as Burnout, a negative effect is desirable.

Figure 28: The landscape of AI's impact



Amazon holds engineering meeting following AI-related outages

Ecommerce giant says there has been a 'trend of incidents' linked to 'Gen-AI assisted changes'



Recent outages had a 'high blast radius', according to a company memo © Belga Mag/AFP via Getty Images



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**How to *safely and*
successfully adopt AI in your
organization?**

\$ whoami



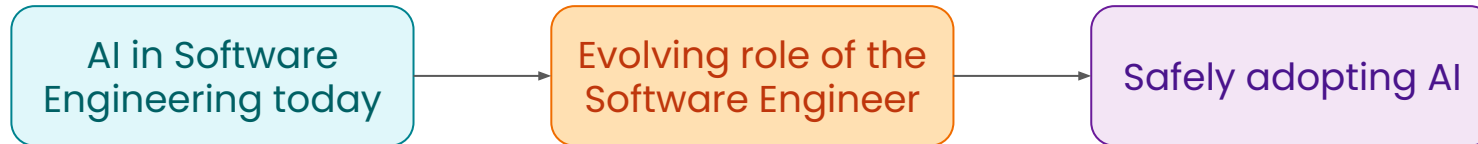
Pascal Widdershoven

CTO @ Kabisa

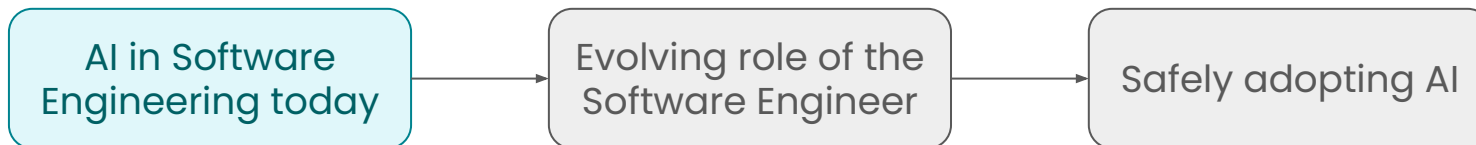
Software engineer & architect

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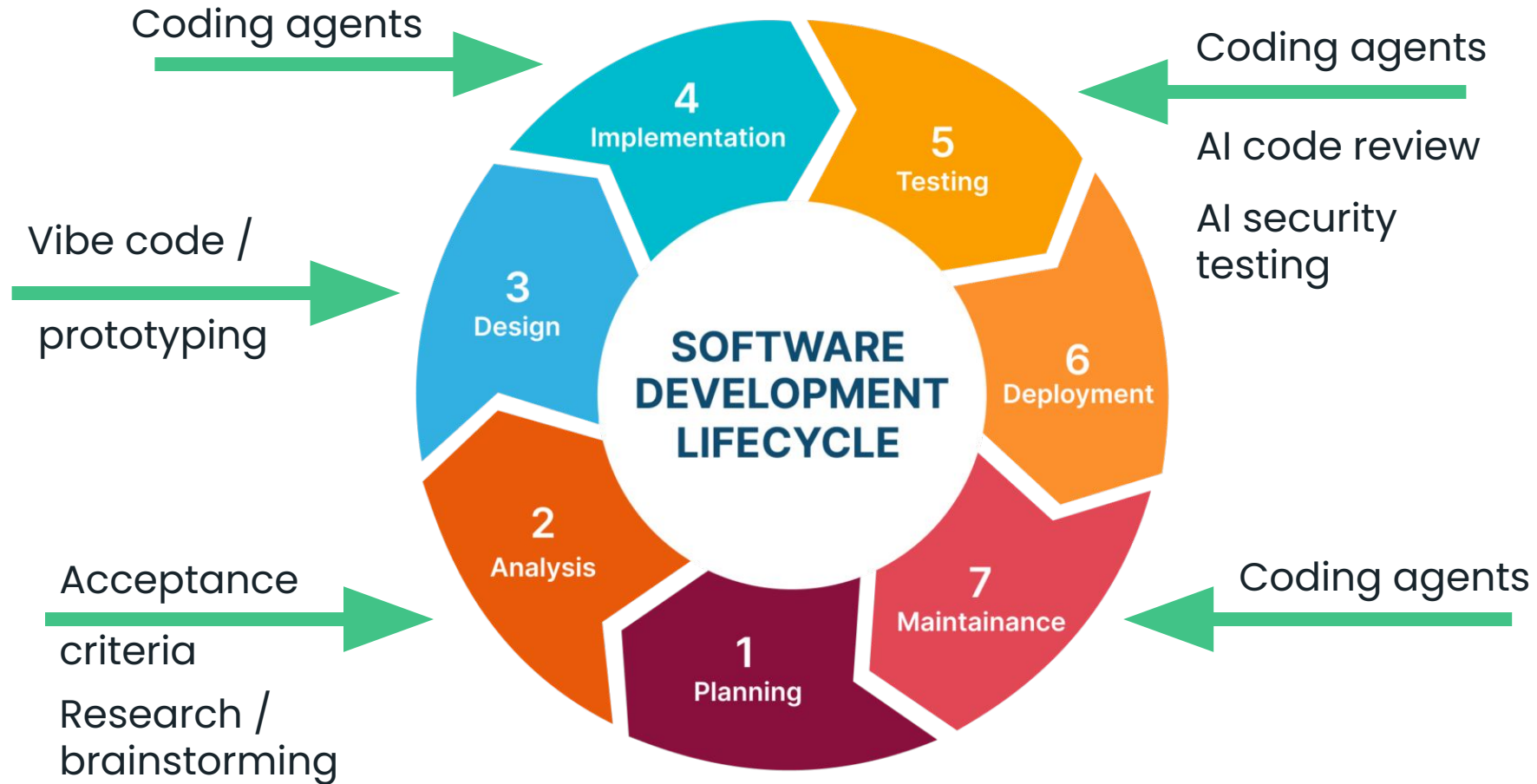
An Inside look



Software engineering with AI today

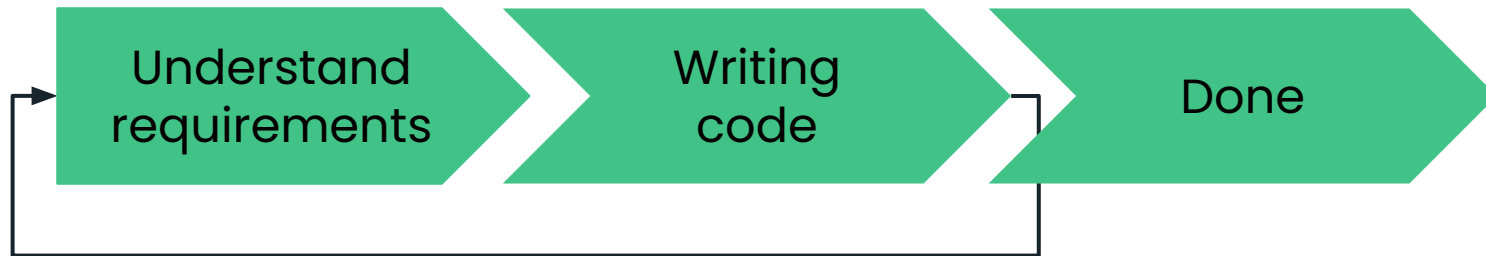


The Software Development Lifecycle



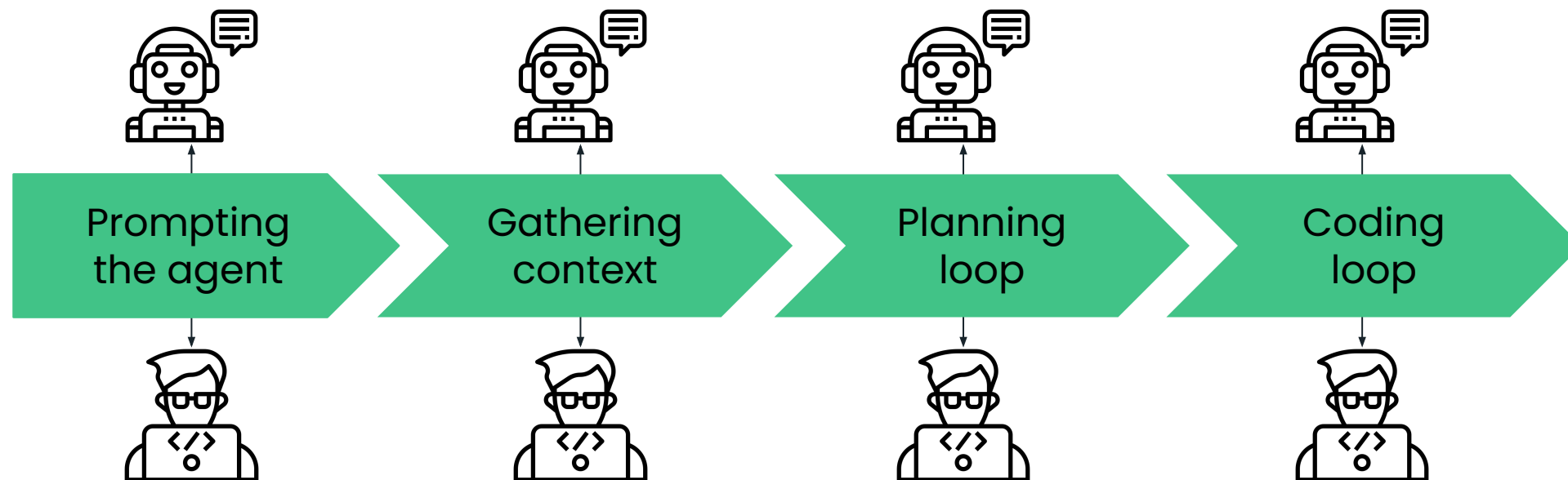
Traditional coding workflow

Developers manually writing code



AI Coding Agents

State of the art coding agent workflow



AI Coding Agents

State of the art coding agent workflow



- Developer sets goal & constraints for the agent.
- Instruct agent on tool use.



"We're going to implement age validation during signup. Details in <Ticket-URL>. I want to use library <X>. Implementation should be flexible, we need to add more validations soon."

AI Coding Agents

State of the art coding agent workflow



- Agent gathers context.
- Chat back and forth for clarification.



- *Reads AGENTS.md*
- *Reads user story.*
- *Examines code base.*
- *Performs web search.*

AI Coding Agents

State of the art coding agent workflow



AGENTS.md

- Functional project overview
- Technology stack
- Project structure
- Coding style
- Testing approach
- Verification commands

AI Coding Agents

State of the art coding agent workflow



- Agent drafts implementation plan.
- Libraries, refactorings, new constructs, etc.

AI Coding Agents

State of the art coding agent workflow



Example plan

- Add library X
- Create unit/integration tests
- Create modules Y and Z
- Refactor A
- Change B

AI Coding Agents

State of the art coding agent workflow



- Agent starts coding step by step.
- Run commands, write code, lookup documentation.
- Developer reviews and intervenes.
- Agent can automatically verify.

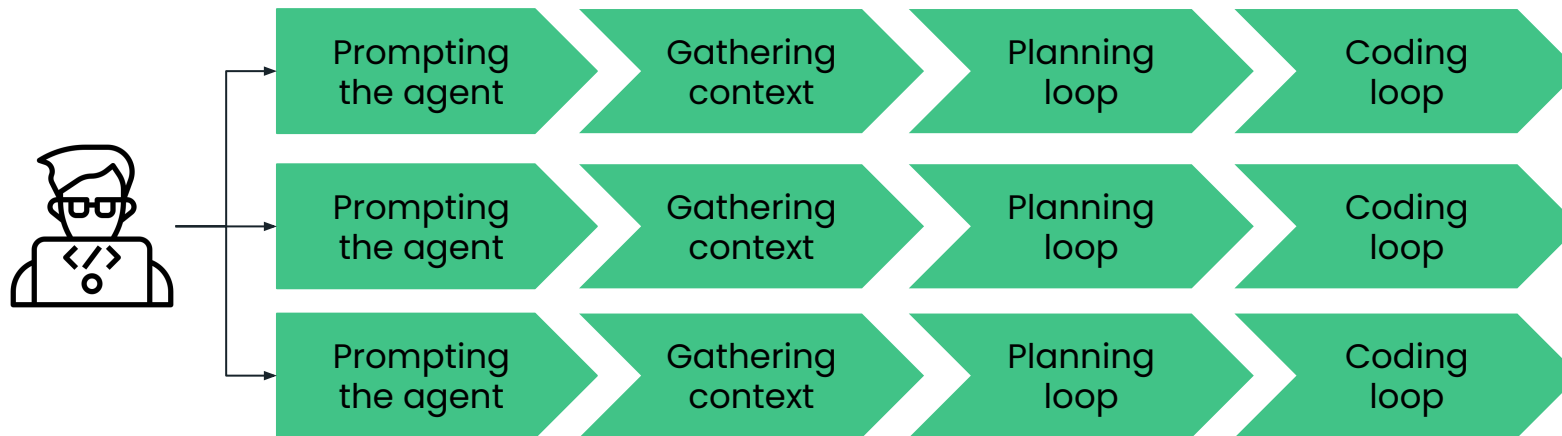
AI Coding Agents

State of the art coding agent workflow



AI Coding Agent Swarms

What's coming next?





aider

 GitHub Copilot



CURSOR

AI Coding Agents

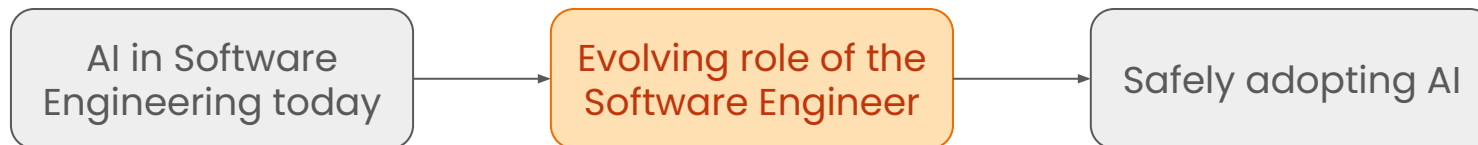
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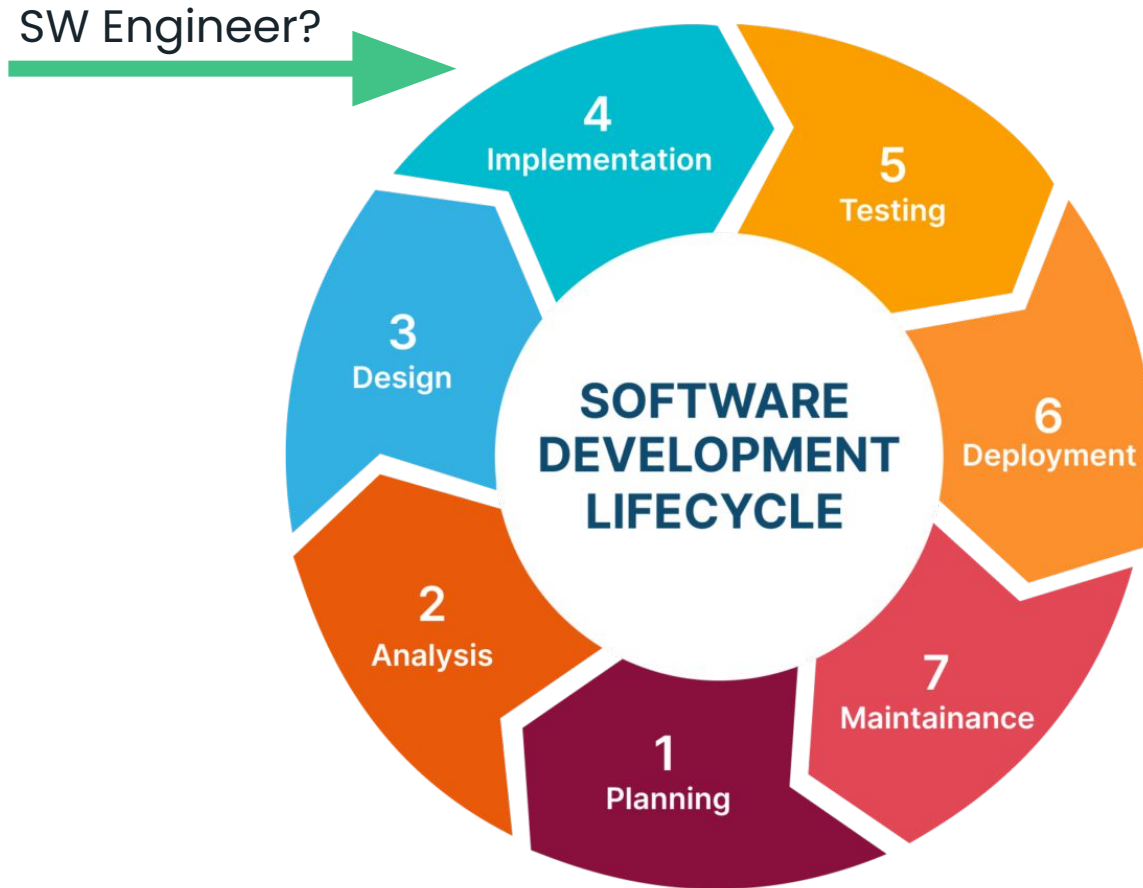
Windsurf Editor



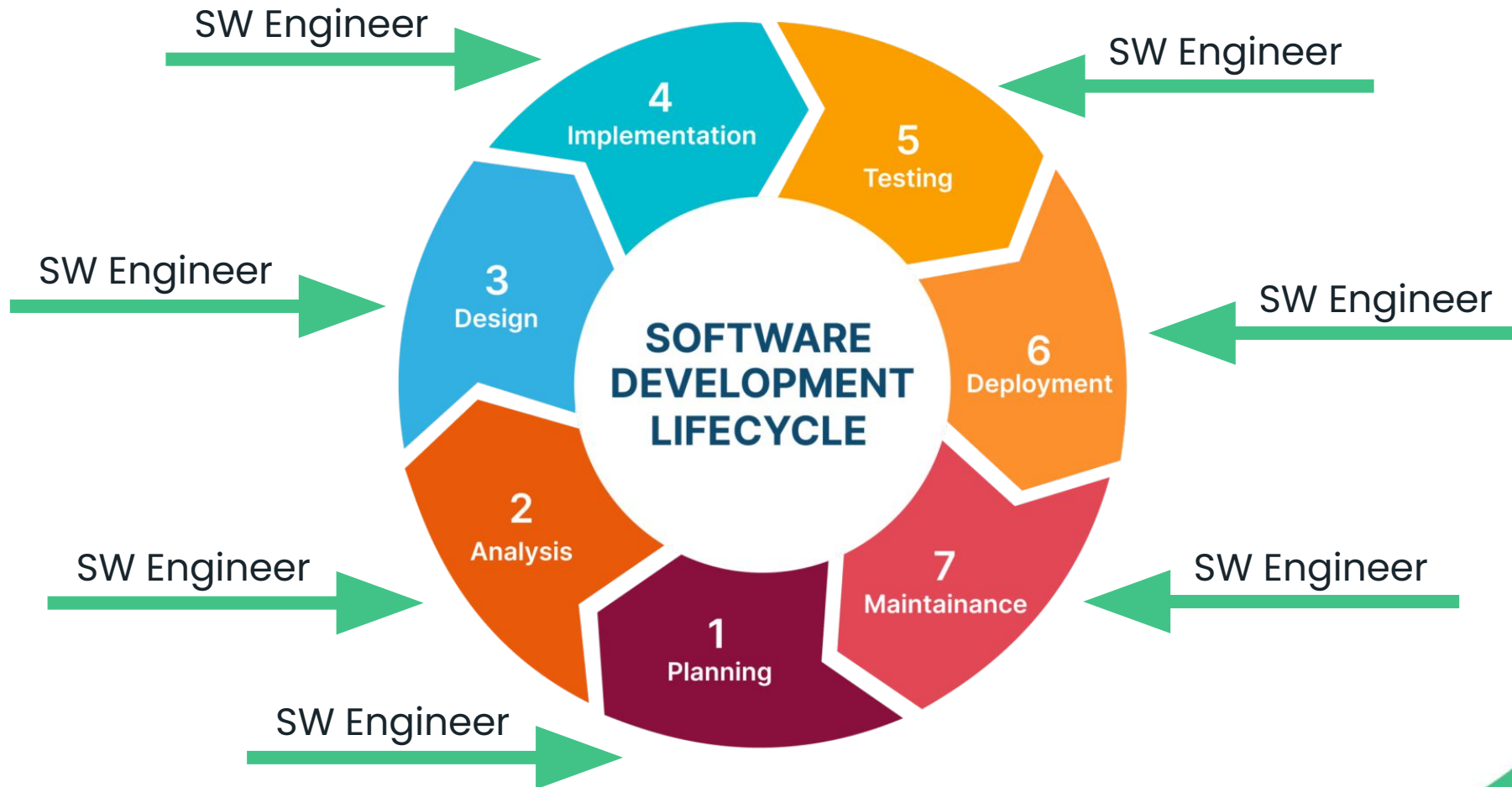
The evolving role of the Software Engineer



Role of the Software Engineer



Role of the Software Engineer

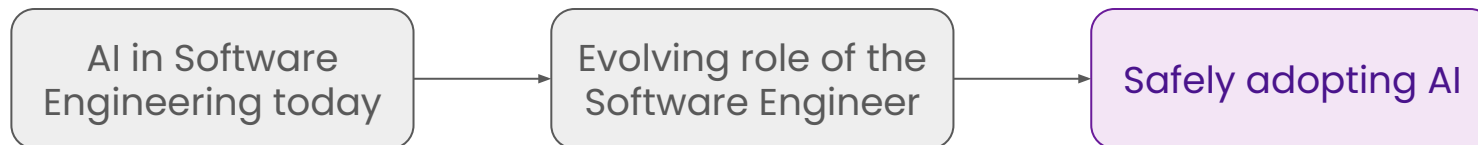


The Software Engineer

In the AI era

- From 'writer of code' to 'end-to-end problem solver'
- Spans a much larger part of the SDLC
- Becomes a Project Manager of sorts
- Uses deep technical experience to guide AI to success
- Jumps in where AI gets stuck
- New opportunity: AI Engineering

Safely and successfully adopting AI



(Safely) adopting AI assisted engineering

In your organization

0. Ensure proper DevOps practises.
 - a. Automated testing (unit, integration, static analysis, security)
 - b. Human (!) code reviews
 - c. Continuous integration / fast feedback loops
 - d. Documentation

(Safely) adopting AI assisted engineering

In your organization

1. Enable teams to experiment and learn.
2. Set up clear guidelines for responsible AI use.
3. Resist cognitive laziness and monitor team happiness.
4. Share share share!

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