

Software Kanban

A Visual Process-Management System for Software Development

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History of Kanban

General Information

- ▶ Kanban = signboard
- ▶ Developed by Taiichi Ohno in 1947
- ▶ Worked for Toyota
- ▶ Scheduling system for lean manufacturing and just-in-time manufacturing

History of Kanban

Taiichi Ohno



Figure: Taiichi Ohno, father of Kanban (1912 - 1990)

History of Kanban

Goals and Reasons

Reasons:

- ▶ Too high storage cost
- ▶ Too little productivity
- ▶ Increasing customer requirements

History of Kanban

Goals and Reasons

Reasons:

- ▶ Too high storage cost
- ▶ Too little productivity
- ▶ Increasing customer requirements

Goal:

- ▶ Steady flow in the production process
⇒ less inventory needed

History of Kanban

Kanban in SWE

- ▶ First use in 2004 by Microsoft
- ▶ Lean Software Development
- ▶ First public presentation in 2007 by David J. Anderson
- ▶ Anderson: Father of Software Kanban

Kanban in Software Development

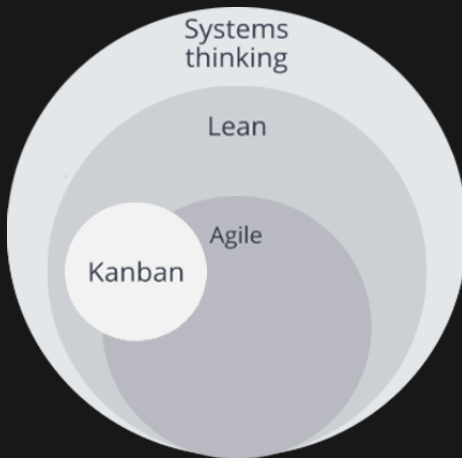


Figure: Kanban has elements of agile and lean SWE

The Kanban-Board

Variations



Figure: A very basic Kanban-Board

The Kanban-Board

Variations

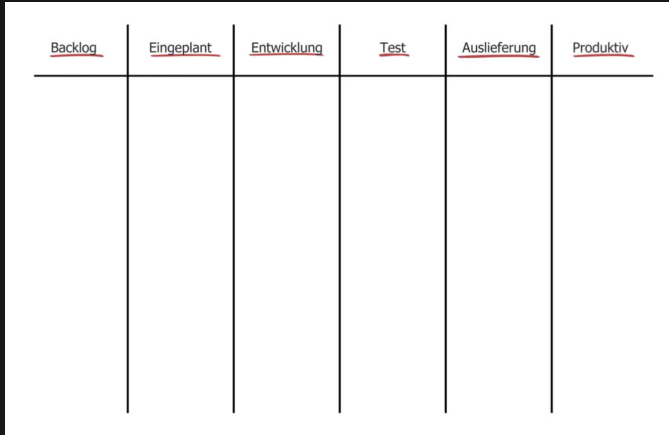


Figure: Kanban-Board with more sections

The Kanban-Board

Variations

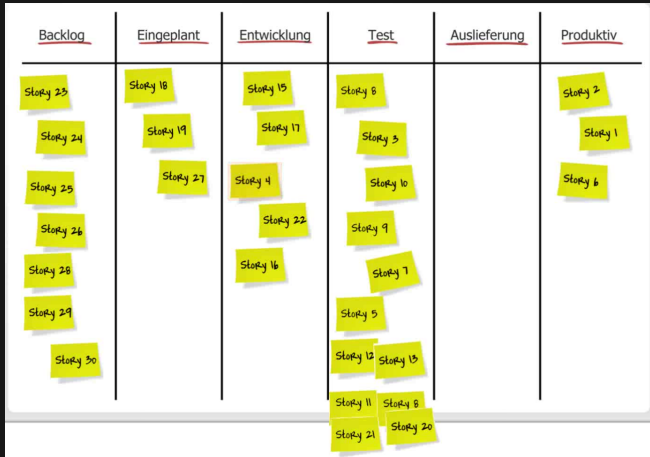


Figure: Same Kanban-Board in Action

The Kanban-Board

Variations

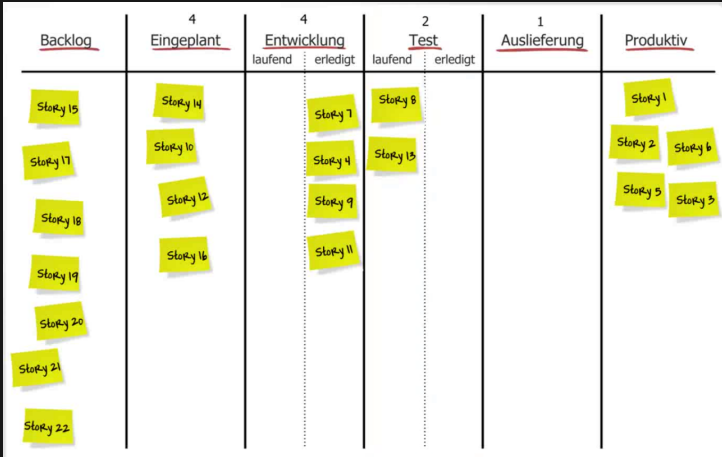


Figure: Kanban-Board with limits

The Kanban-Board

Other useful Information

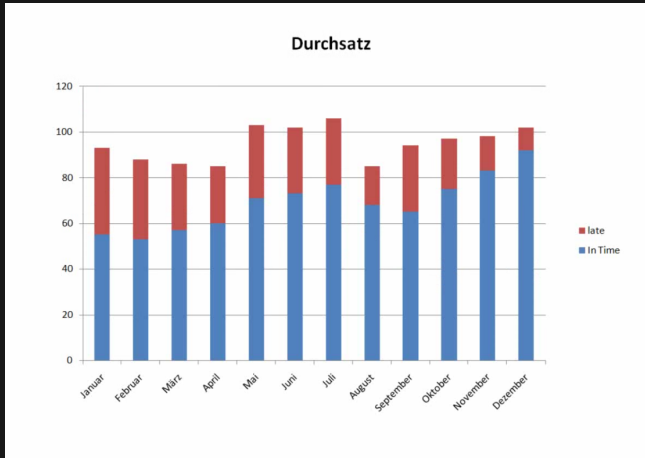


Figure: Throughput

The Kanban-Board

Other useful Information

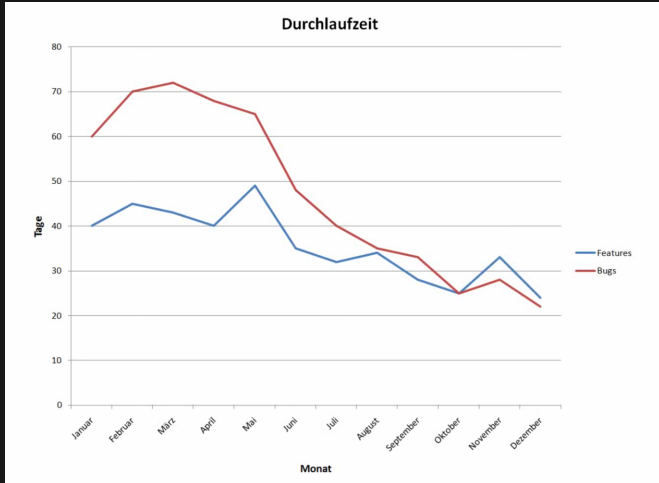


Figure: Cycle Time

The Kanban-Board

Other useful Information

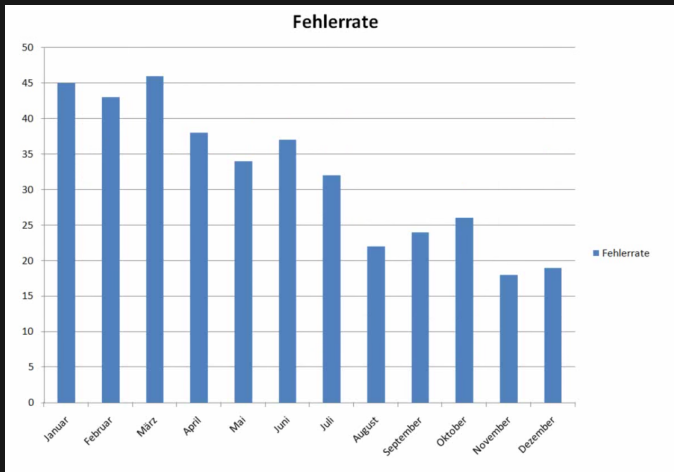


Figure: Rate of Errors

Conclusion

Kanban is

- ▶ easy to learn
- ▶ versatile

Mehr Zeug einfügen!!!

Sources

- ▶ Epping, Thomas: *Kanban für die Softwareentwicklung*. Springer-Verlag 2011
- ▶ <https://www.youtube.com/watch?v=ndWPFk7GR8k>
- ▶ Wikimedia