2025/03/18

# Kickoff

**Keita Kawabata**

Software
Engineering at
Google

Lessons Learned
from Programming
Over Time

Curated by Titus Winters,
Tom Manshreck & Hyrum Wright

# Agenda

1. About reading group

2. About "Software Engineering at Google"

3. How to read books with AI

# About reading group

# Purpose

- Provide an opportunity to discuss your growth and the team's growth.

- Apply what you learn from this book to your work or team.

# Outline

You can find all information about this reading group on Slack (Canvas).

| Item | Details |
|------|---------|
| Frequency | once a week |
| Duration | 40 - 60 min |
| Terms | 2 months or longer |
| Style | Zoom / Discussion |
| Language | English |

# Agenda for study group

- Presentation
  - We plan to have **rotating presentations**, **Use Miro**

- Comment & Discussion → **Use Miro**

| Time | Activity |
| --- | --- |
| 20 min | presentation (intro, chapter summary) |
| 5 min | write comment |
| 15 min | discussion |

# Miro

Miro is an online whiteboard app for collaboration and brainstorming.
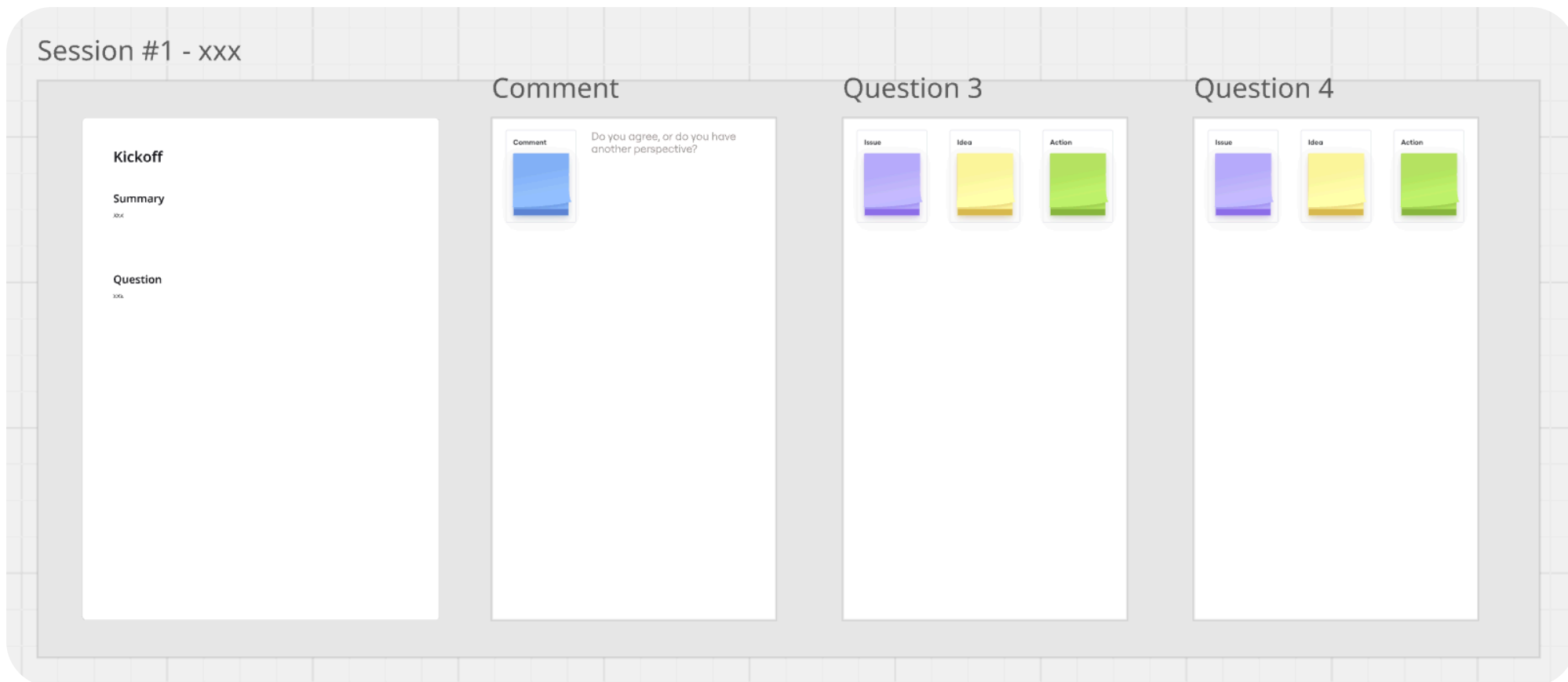
# Miro - How to Use

You can access it from Slack (Canva).

- **Summary**: Session summary provided by the **presenter**.

- **Comment**:

  - Comments on the summary.

- Question:

  - **Comment / Issue**: Comments or issues related to each question.

  - **Idea**: Ideas for solving the issues.

  - **Action**: Actions to implement the ideas.

# Example Topics for Discussion

### Discussion memo

- Share your Experience
  - What insecurities, issues did you have when you joined your team?
- What your team is doing
  - What activity does your team implement for maintain health of team?
- Other case or idea for improve your team in terms of (team work?)
  - Spotify (read later)
- Keisuke Honda? - What failures did you get today?
  - I got ... -> 👍 / no, nothing → 😡

# Ways to Engage in a Reading Group

1. Active Participation

2. Listening-Only Participation

3. Asynchronous Participation

# Active Participation

## Join the live Discussion!

- The discussion topics are designed to help you grow, improve your team, and enhance GAOGAO.

- Don't Be Afraid to Speak English!

# Listening-Only Participation

**Write comment to Miro!**

- Your comment makes our discussion smoother, more active, and higher quality.

- Just being there makes it easier to talk!

# Asynchronous Participation

**Share your thoughts and experience to Miro!**

- Join our group on Slack: **#study_google_swe**

- I share the summary and question for each topic weekly

- You can add your thoughts and experience anytime in Miro

**null (Keita Kawabata)**  11:44 PM

Software Engineering at Google - **How to Work Well on Teams**?

### Summary

- Software development is mainly a team activity, not just individual work.
  - Cultivate a team culture based on humility, respect, and trust.
  - Share work early and get feedback.
- Give constructive criticism, focusing on the code or idea, not the person
- Increase the 'bus factor' of project
  - the number of people that need to get hit by a bus before your project is completely doomed
  - A low bus factor means that only a small number of people possess critical knowledge about the project
  - A high bus factor means that knowledge is widely shared among the team.
  - When things go wrong, it's important to document the failure

### Discussion memo

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# About "Software Engineering at Google"

# What we can learn

1. **Core Principles of Sustainable Software Engineering:**

   Emphasis on long-term code value, scalability, and decision-making trade-offs.

2. **Google's Approach to Large-Scale Software Development**

   Insights into culture, engineering processes, and tooling strategies.

3. **Practical Methods**

   Lessons from Google's successes and failures, adaptable insights for other organisations.

# How to read books with AI

# NotebookLM

This is my original method. If you know a better way, please share!

**1. Signup for NotebookLM**

**2. Add resources with url as website.**

**3. Generate Summary & Ask uncrear points**

# Prompt #1

**For making summary**

You are available in our group on

Slack (Canvas)

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Please use the source **"0. Preface"** as a guide to create a **comprehensive and detailed summary** of **"xxx"**.

Ensure that your summary highlights the key concepts, principles, and insights discussed in this section, covering:

- The core themes and how they contribute to the overall understanding of software engineering.
- Key distinctions, trade-offs, and practical implications relevant to software engineering.
- Actionable takeaways that can be applied in real-world engineering jobs.

Additionally, based on this summary, generate **thought-provoking discussion questions** that encourage reflection on:

1. **The Job** – How the concepts apply to individual roles in software engineering.
2. **The Individual** – The skills and mindset necessary for success.
3. **The Team** – Collaboration, communication, and best practices in software development teams.
4. **The Company** – The broader organizational impact of these principles.

And also, use B1 level english words, expression for readers

### Structure of Response
#### Summary
- A clear and concise overview of the section.
- Explanation of its significance in the broader context of software engineering.

#### Key Points
- A detailed list of the most important ideas and takeaways.

#### What Should We Do?
- Practical recommendations and best practices based on the insights from the section.
- How these lessons apply to real-world software engineering work.

#### Questions for Discussion
- Engaging questions that encourage deep thinking and meaningful discussions.
- How these concepts vary across different organizations, teams, and projects.

# Prompt #2

For find omitted point in preparing summary

Are there any points that you omitted in preparing this summary? please list up all of them as best you can in list form.

Use B1 level english words, expression for readers

# Thank you!