

# exercises: designing systems of concepts

Daniel Jackson · Autodesk Oslo Workshop · August 25-26, 2025

# System design reading exercise

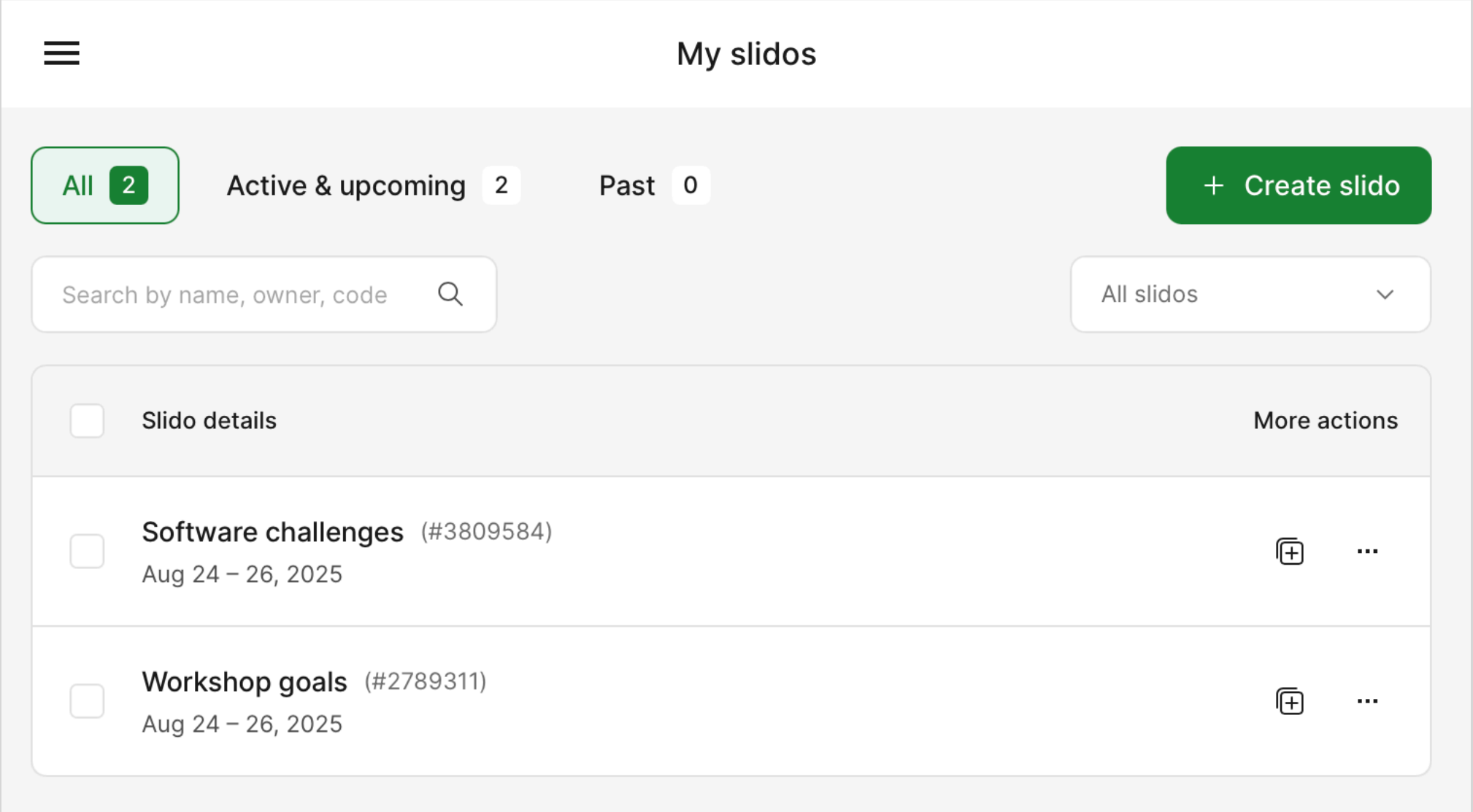
Learning about system design by reading concept specs and syncs

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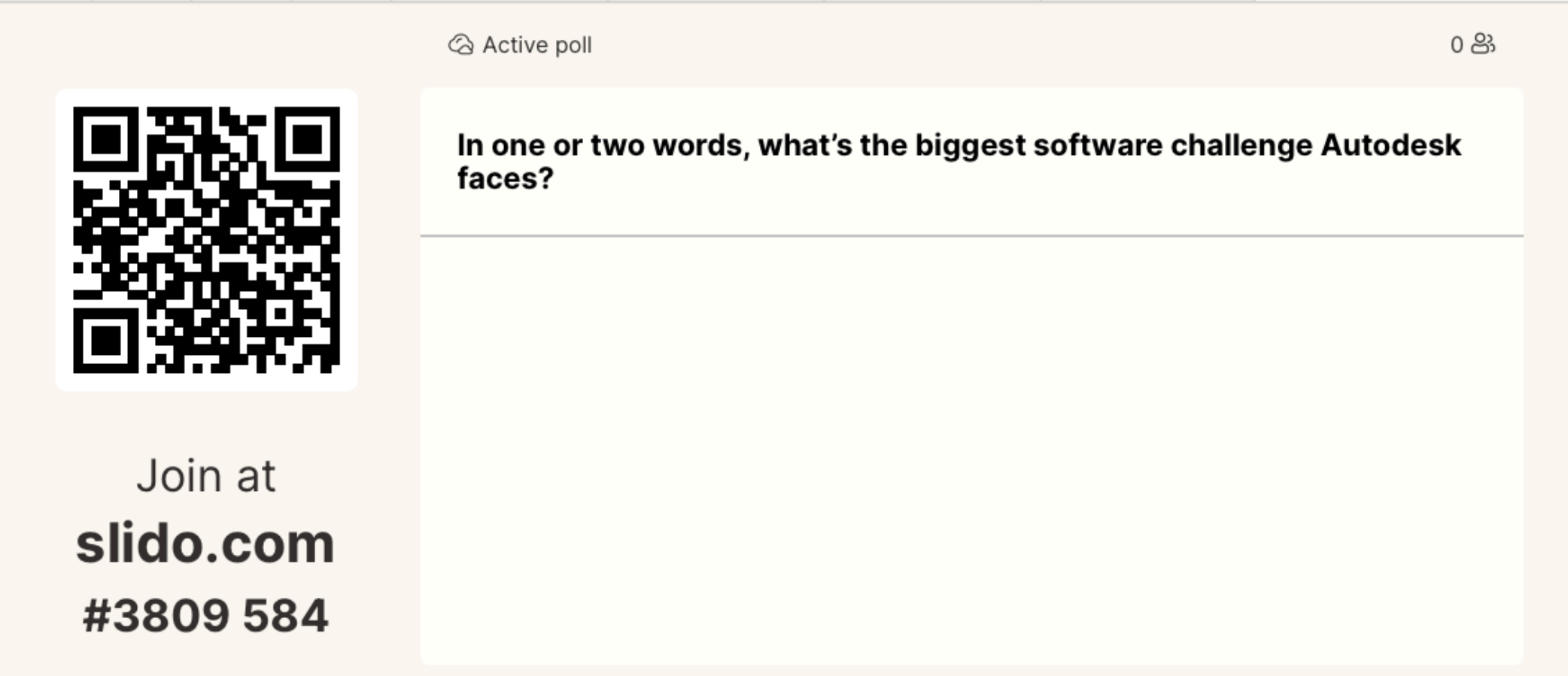
- Concepts
  - A UrlShortening Concept
  - A NonceGenerator Concept
  - An ExpiringResource Concept
  - Some explanatory notes
  - Concept Questions
- Synchronizations
  - Some explanatory notes
  - Synchronization Questions

study the URL shortener concepts and their syncs and answer the questions about them (30 mins)

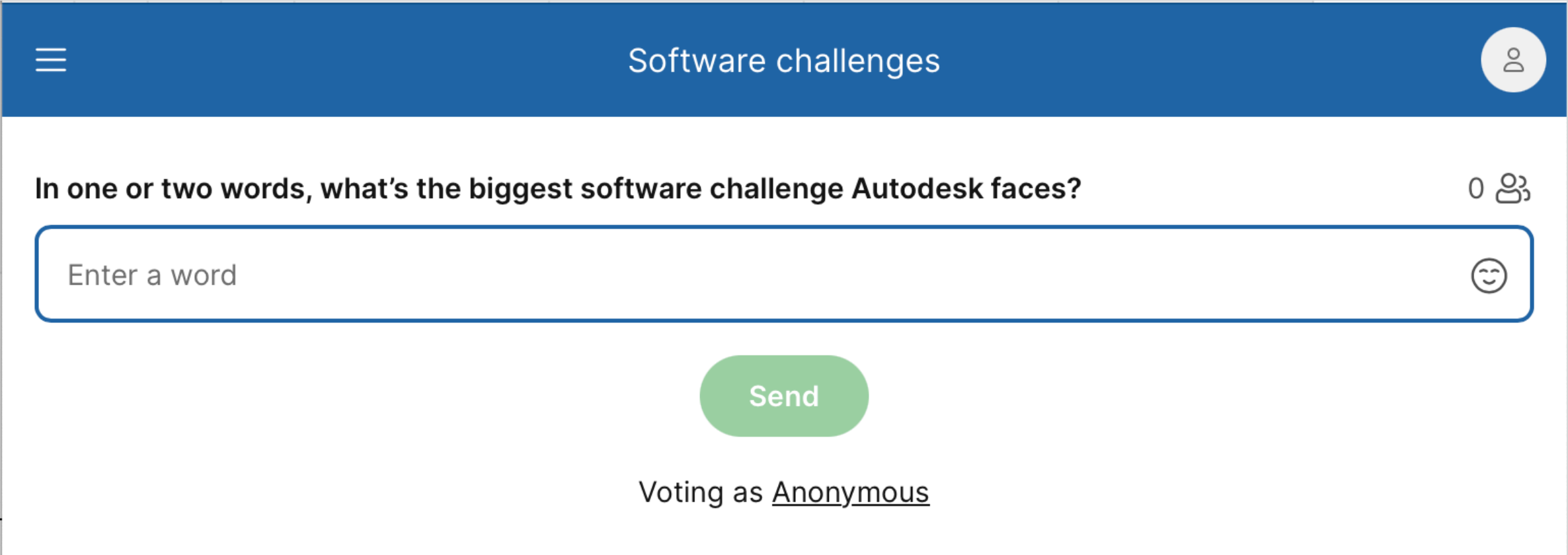
# writing exercise: exploring Slido



creating, editing and listing polls



displaying polls links



responding to a poll

# writing exercise: exploring Slido

## **design a simple version of Slido**

start by identifying the key features

simplify (eg, just one kind of question)

outline a handful of concepts

write syncs for the essential requests

## **make your design modular**

support variants without changing concepts

1. QR code or short/memorable URL

2. users have accounts with access to polls or get links to edit/view them

3. polls can be left open forever or expire after a fixed time