Setting up and using a Metadb reporting database to provide your institution with real-time data reports from FOLIO

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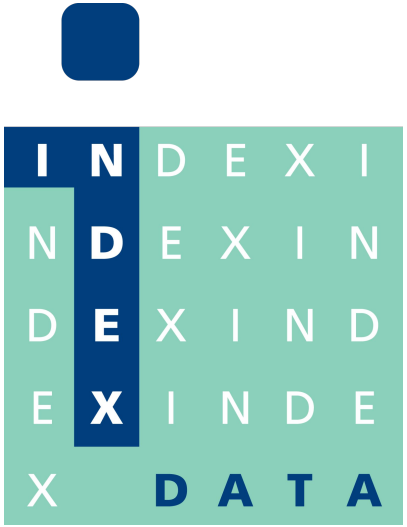

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A gentle introduction to Metadb

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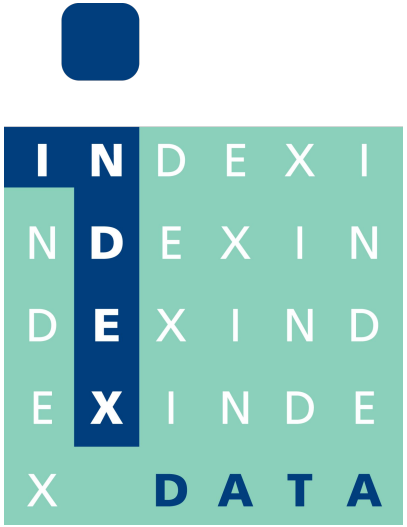

Introduction

If your library runs FOLIO, you need reports.

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- No record is kept of old data.
- All the data is in JSON so queries would have to transform it.
- The records are highly denormalized with data fragments split across tables.
- Running expensive reports has performance implications for regular users.

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That's Metadb!

How Metadb works

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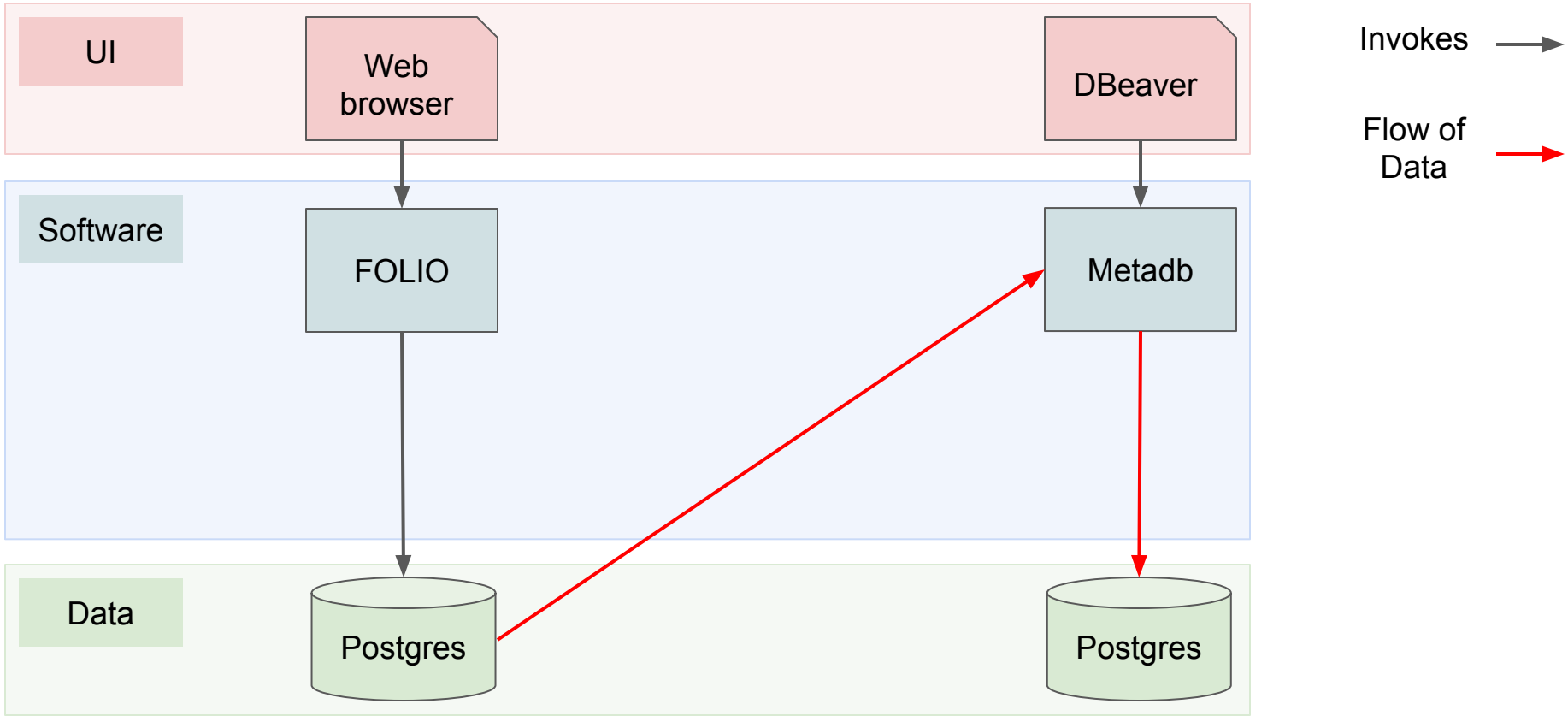
Metadb harvests these change records to keep its own database up to date.

How Metadb works



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(Actually, it's more complicated than that — stay tuned.)

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MARC records, which are stored as opaque blobs in FOLIO, are expanded into queryable tables.

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For example, user records in Metadb's **users_groups** table contain not just a **patron_group** ID column but also a **group** column containing the name of the group that the user belongs to.

How data gets from FOLIO into Metadb

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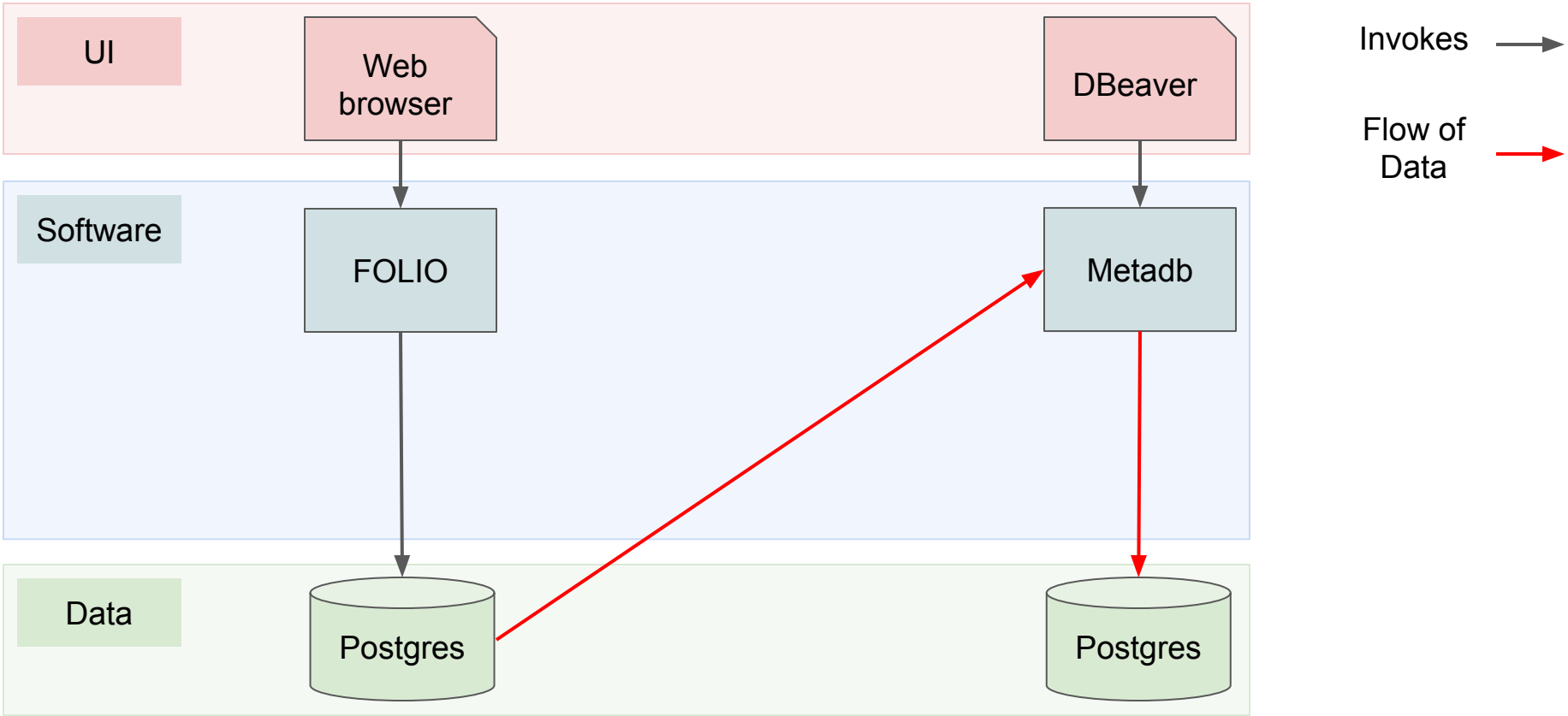

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That would not be ideal:

- Change events could back up in the Postgres replication slot
- State could get confused if FOLIO or Metadb goes down
- We would be limited to harvesting from Postgres, and Metadb is more general than that — e.g. could harvest from a VuFind database.

How data gets from FOLIO into Metadb

Instead we use a more flexible but complex system:

- Debezium uses the Postgres connector from Kafka Connect to read from the FOLIO database's replication slot
- It feeds those events into Kafka
- Metadb reads events from Kafka

This provides buffering, robustness and database-independence.

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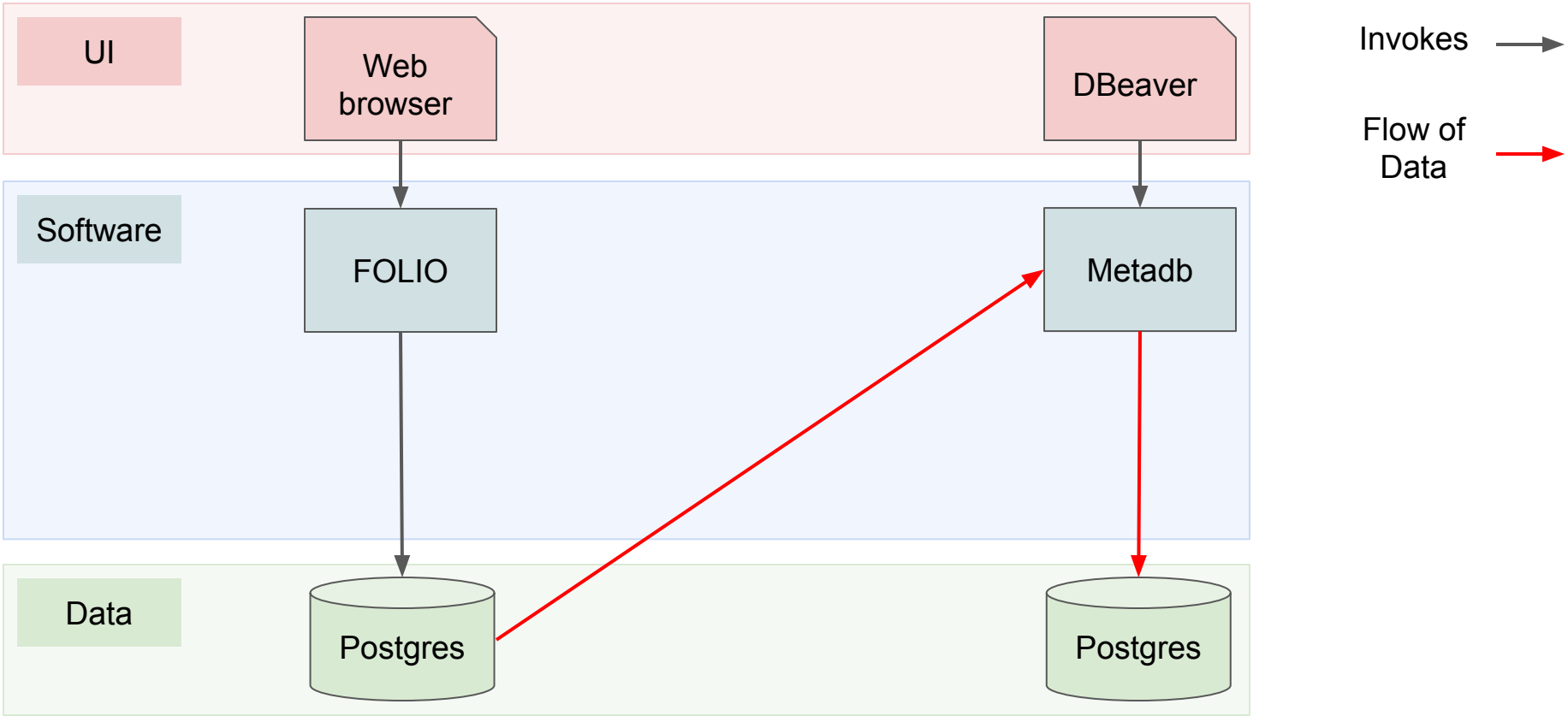

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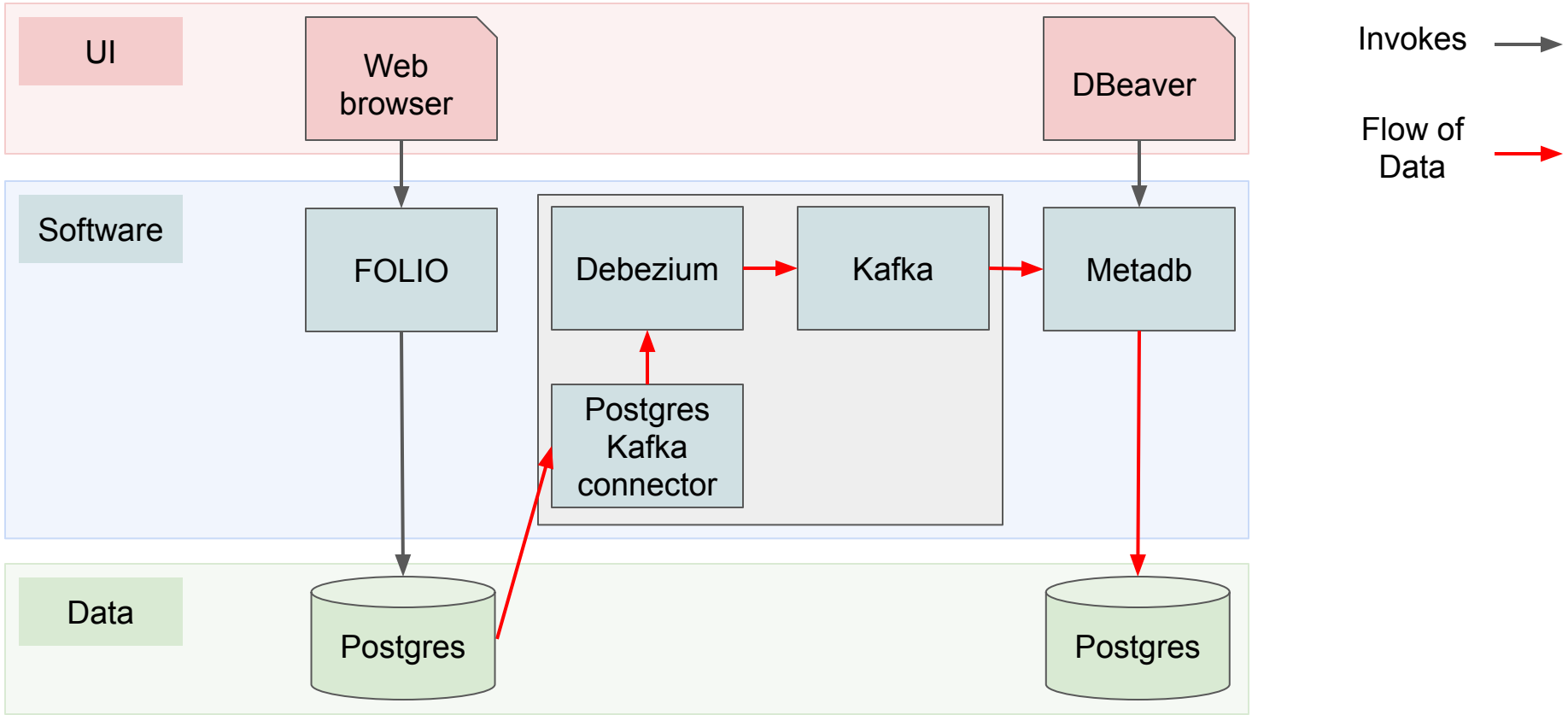

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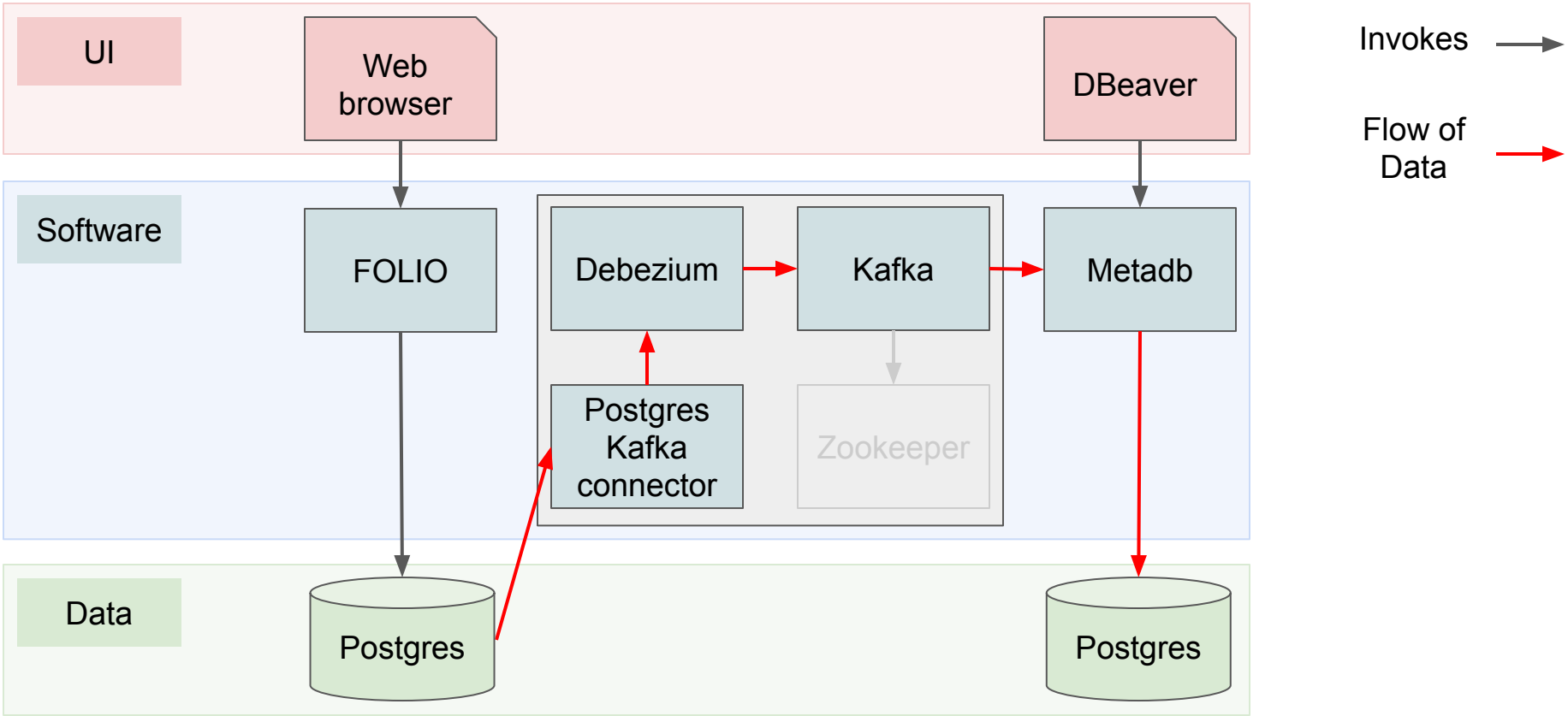

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And what kinds of queries might you run? Sharon will tell us more about this!

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