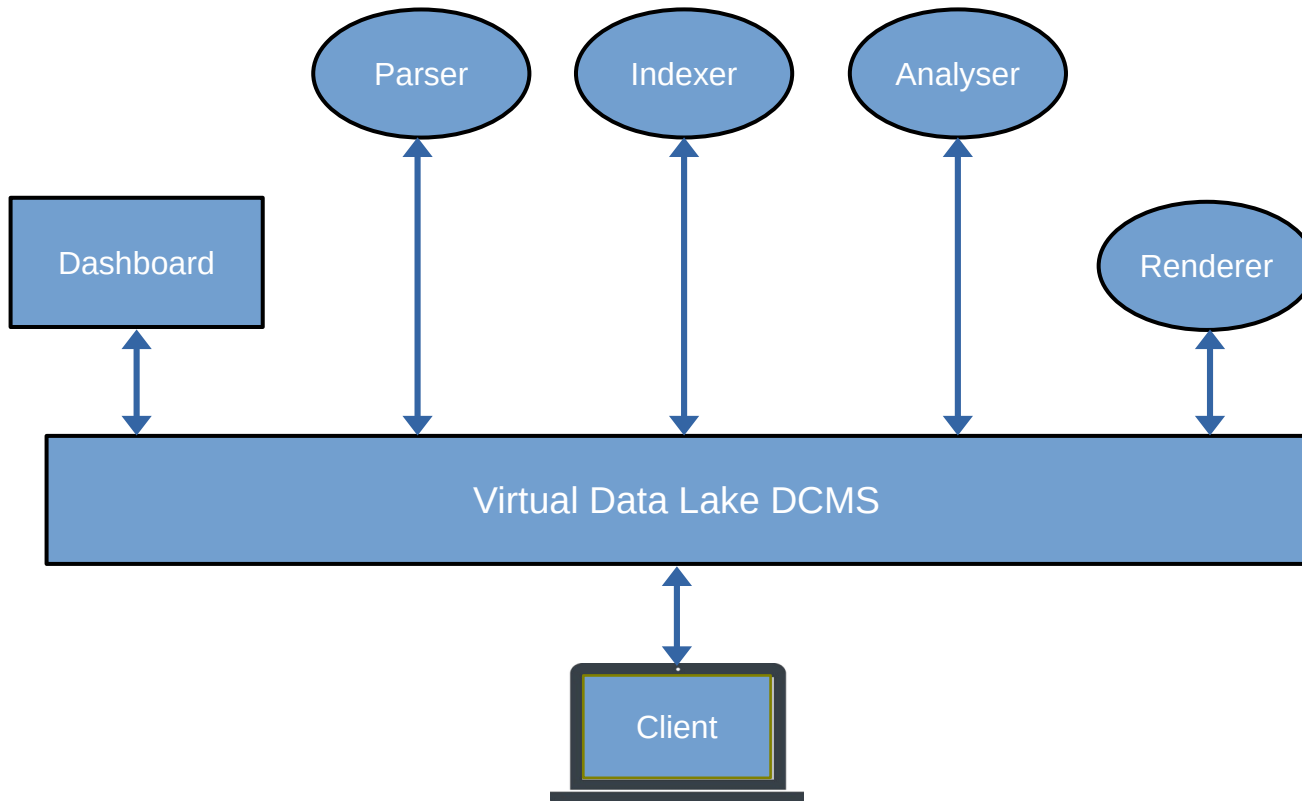


Concept Map Application

- Creates a mind-map of the main concepts in a set of web pages
- Executes as a set of Kubernetes services
- One of these is a virtual data lake data content management system (DCMS) that serves client HTTP requests
- Another (the Renderer) creates the concept map visualisations
- Others (Parser, Indexer, and Analyser) create the data from which the visualisations are built
- The final service (the Dashboard) enables the user to define a set of pages to analyse, to start the analysis, and to monitor its progress.

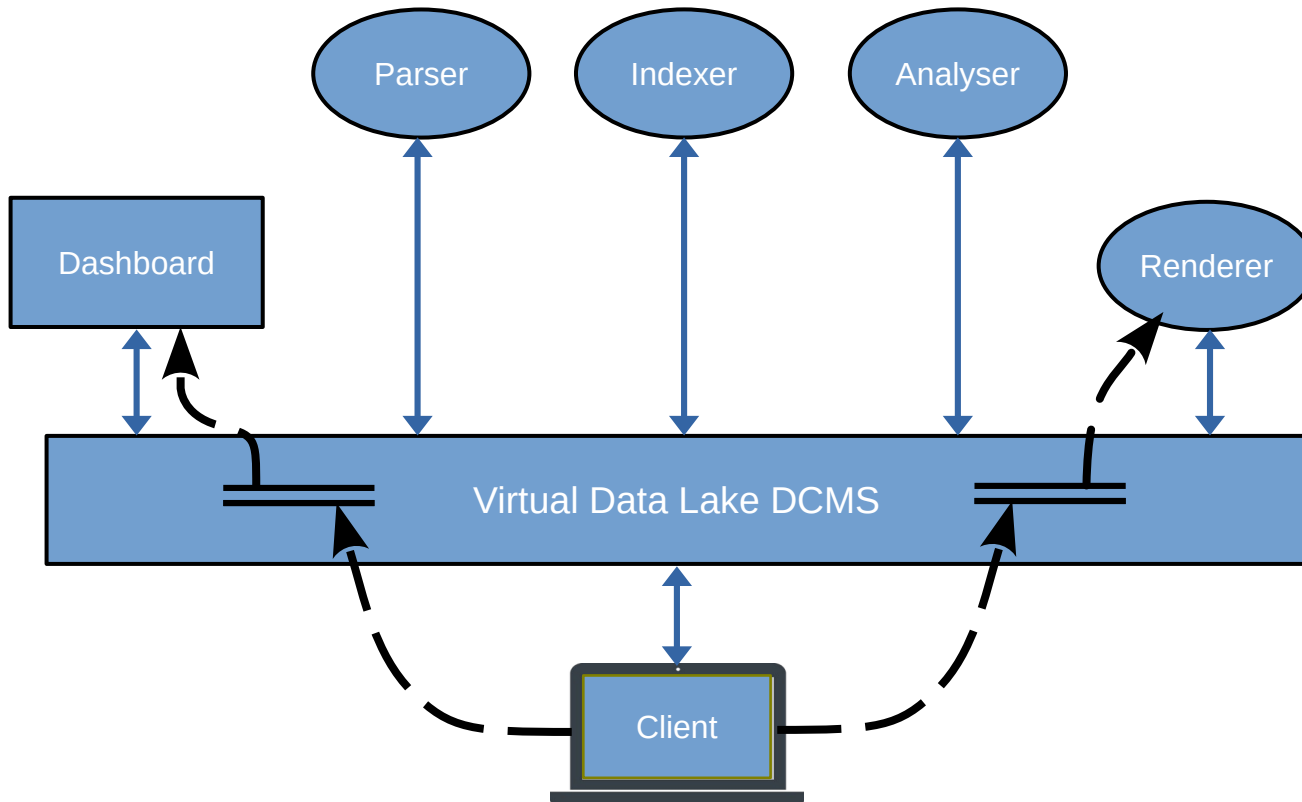
System Overview



Why not do the dashboard in the client?

- It has to maintain state over long periods during which the user could navigate away from the page

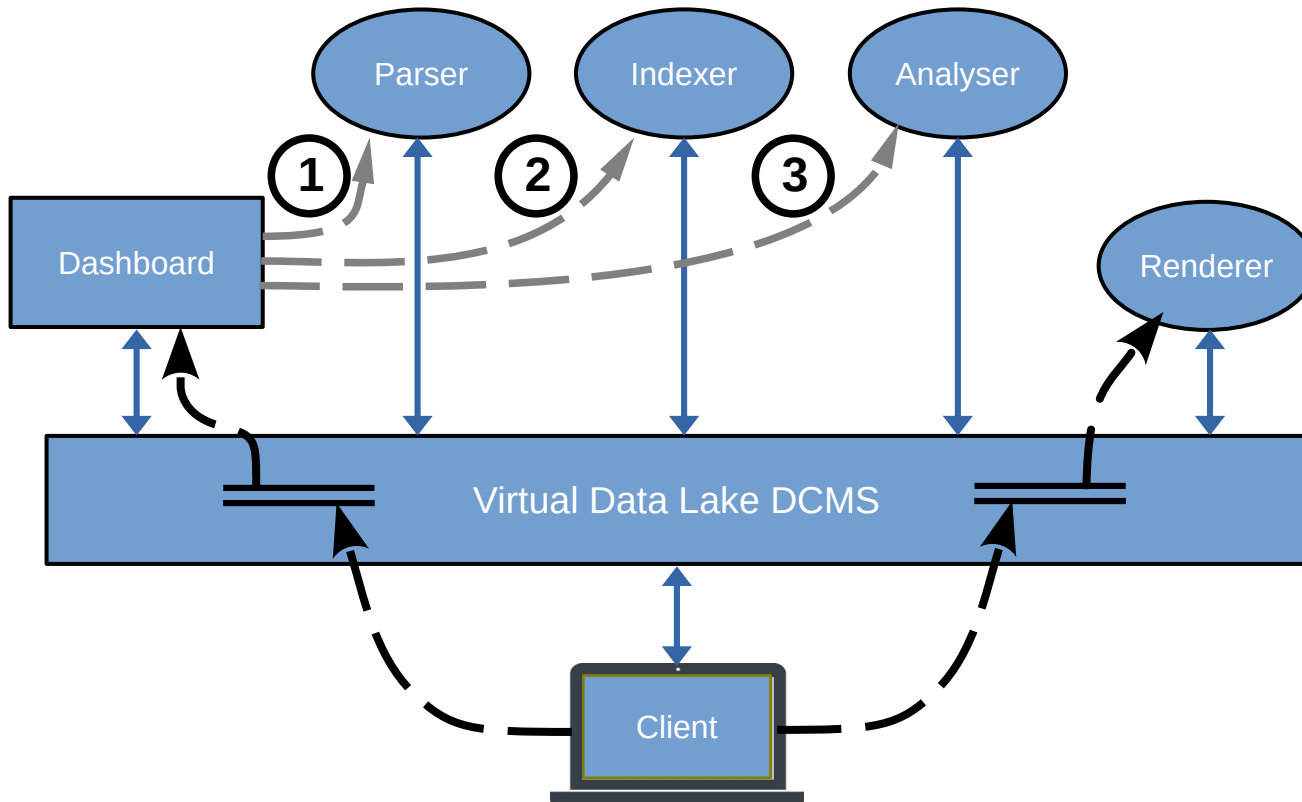
Client HTTP Requests



Client HTTP requests are relayed by the DCMS

- Maintains a secure session with the client
- Provides overall page rendering
- Supplies data values

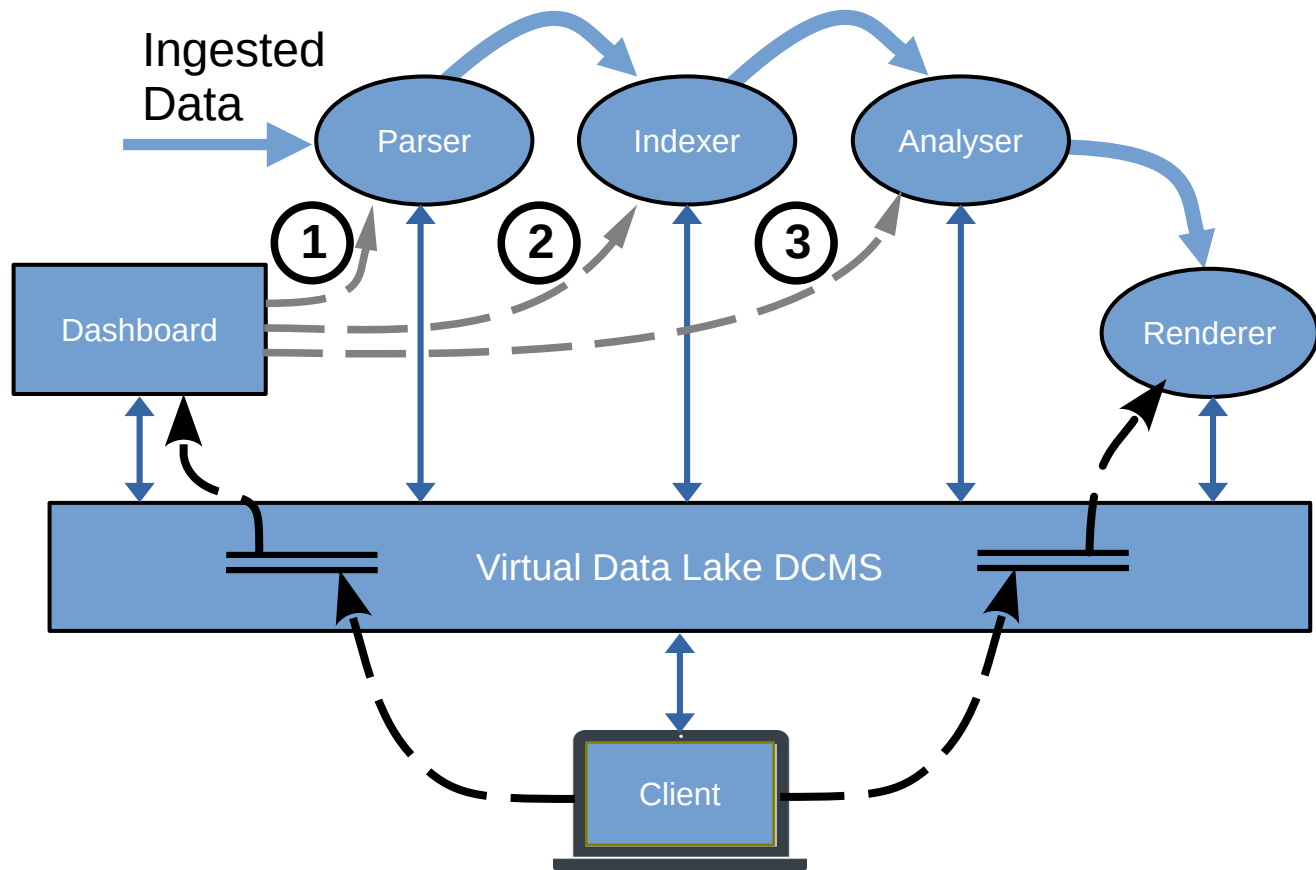
Implied Control Flow



The dashboard sets values that are polled by the services

- Services are single-threaded
- Values are large

Data Flow



The ingested data is stored in the virtual data lake, processed by the Parser, Indexer and Analyser, and displayed by the Renderer