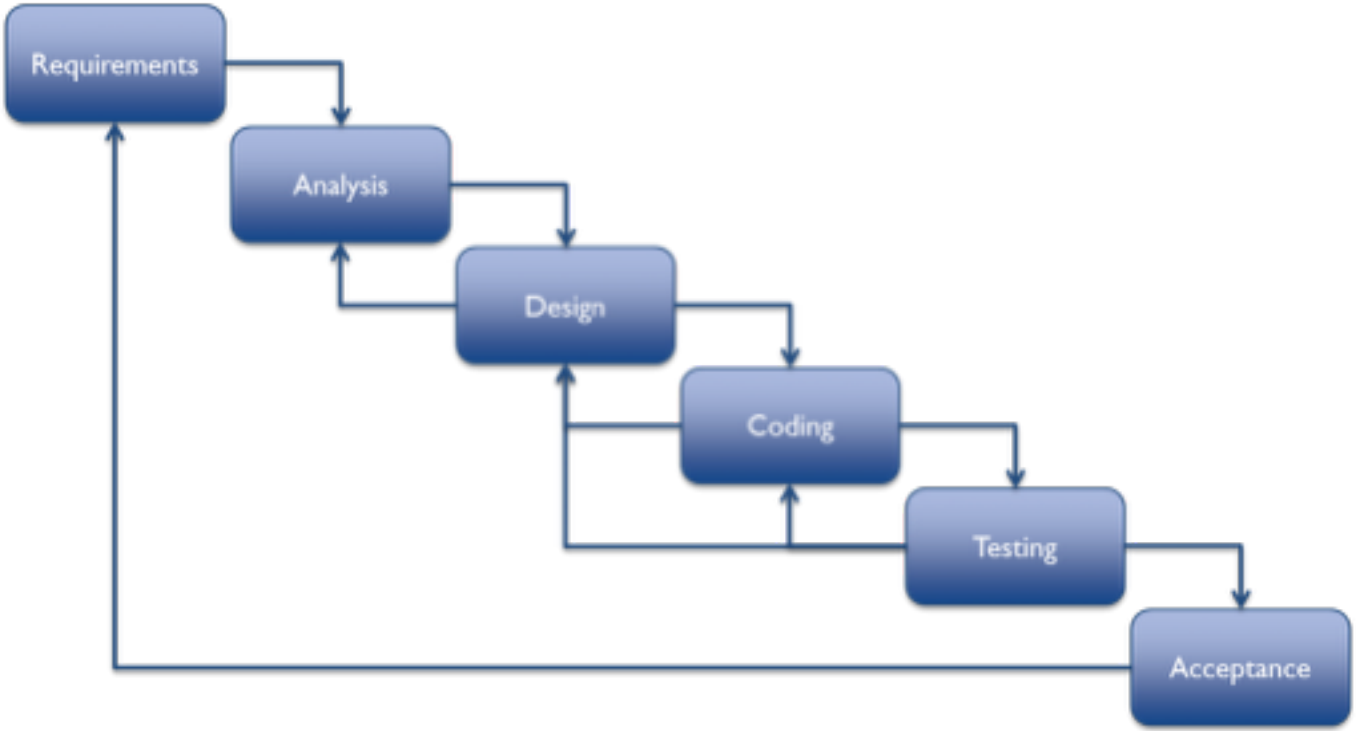
Developers, Developers,... DataStax Tools for Developers

Alex Popescu

1	End to end development
2	Tools for Analysis & Design
3	Tools for Data loading
4	Tools for Development

Development process



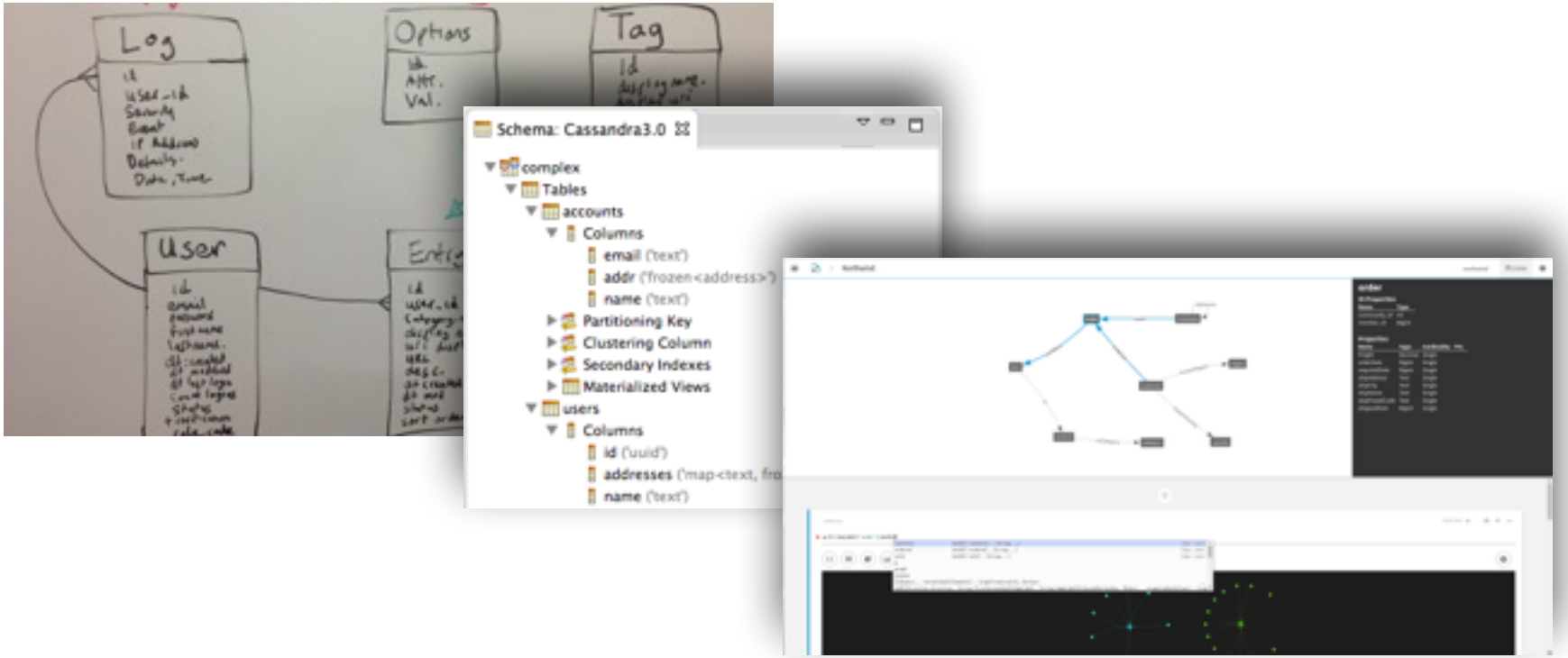
Analysis & Design

Starting on the right foot

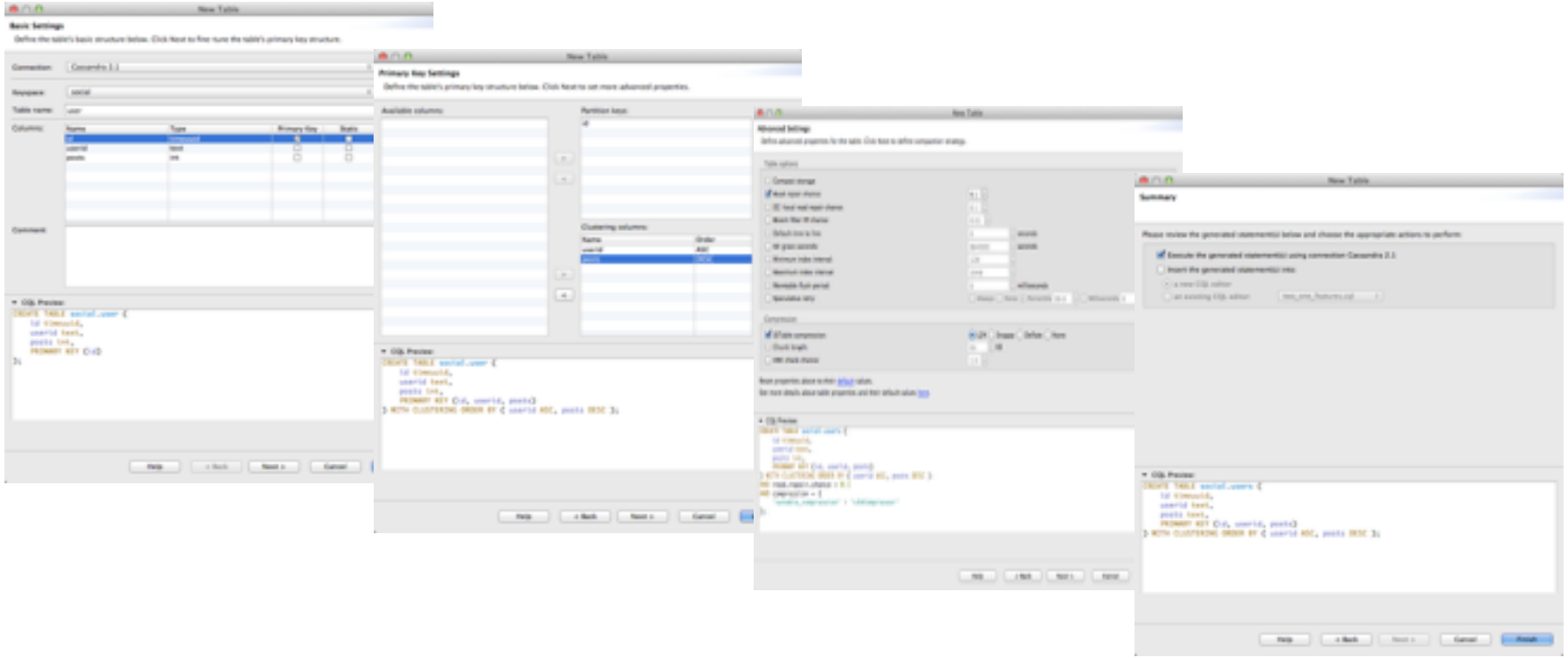
Analysis & Design

- Architecture discussions and decisions
  - Frameworks, libraries, and tools
- Data modeling
  - Model validation
- Prototyping or proof of concepts
  - Sample data

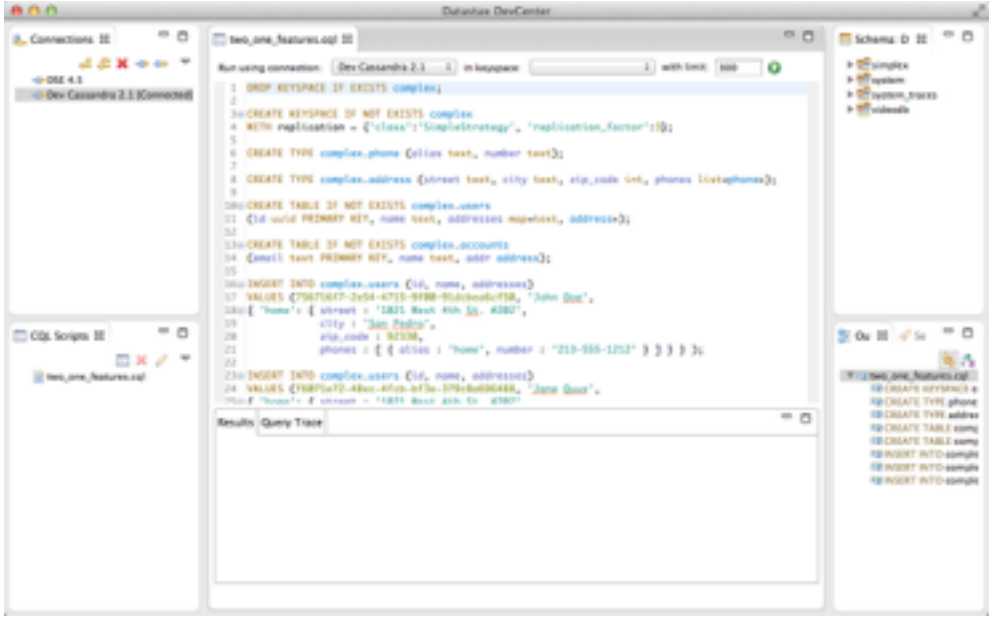
Data modeling



Working with schemas



Introducing DataStax DevCenter



- Free visual schema and query IDE
- Manage connections
- Visualize schemas
- Schema wizards
- Best CQL editor
  - syntactic and semantic auto-completion
  - real-time validations and quick fixes

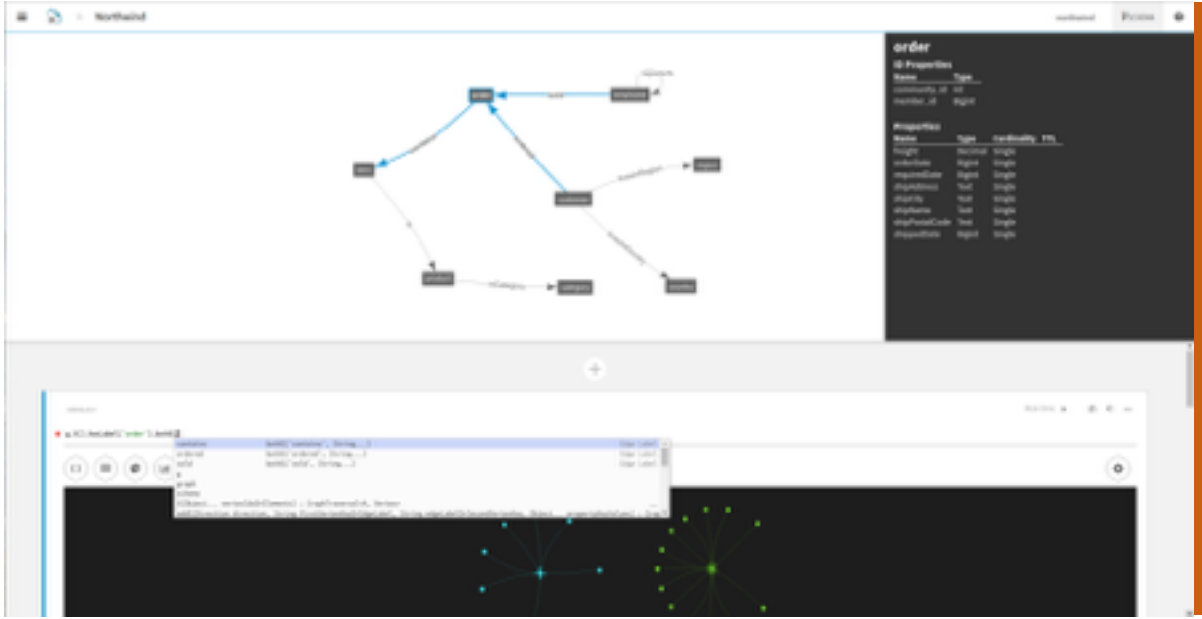
Data loading for PoC/Prototypes

- Professional ETL tools
- Cassandra Loader

  <https://github.com/brianmhess/cassandra-loader>
- DSE Graph Loader

  <https://docs.datastax.com/en/latest-dse/datastax_enterprise/graph/dgl/graphloaderTOC.html>

Introducing DataStax Studio for DSE Graph



- Intuitive web-based developer tool DSE Graph
  - querying
  - exploring
  - analyzing
  - visualizing
- Notebook style
- Advanced Gremlin editor
- Various result type representations
- Pre-packaged visualization

What we got with the right tools

- Data model satisfying your requirements
- Schema scripts
    - Easily recreate development or testing environments
- Test data
- CQL scripts of DataStax Studio Notebooks for validating & demoing

Development

The alchemy of coding, debugging, testing, tuning

DataStax Drivers

python™

Goals of DataStax Drivers

- Consistent set of features across languages
  - Asynchronous execution
  - Automatic cluster discovery
  - Connection pools and automatic reconnection
  - Load balancing
  - Fault tolerant
  - Address resolution
- Flexible to the core
- Consistent terminology
  - Cluster -> Session -> PreparedStatement & Statement -> Future or ResultSet

Other connectors

- ODBC driver with CQL connector
- ODBC & JDBC drivers for Spark
- Spark connector
- Kafka sink connector

How to choose a connector

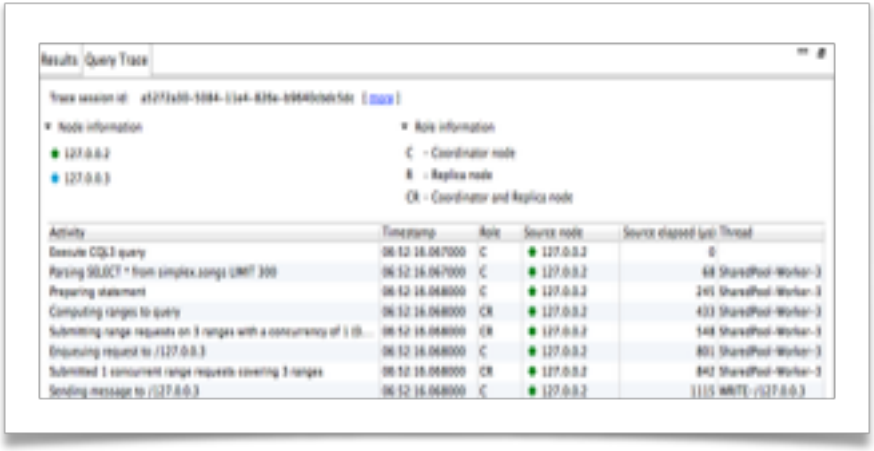
- Native CQL connectors for application development
- Extracting data and/or aggregations
  - ODBC driver with CQL connector for small aggregations on highly selective queries
  - ODBC/JDBC for Spark for large aggregations or large extractions

Testing

- CCM
  - set up local clusters
  - CLI
- Docker images
  - quickly test specific versions
- cassandra-unit
  - embedded Apache Cassandra
- scassandra
  - mock Apache Cassandra server
  - admin REST API

Query debugging & profiling

DataStax DevCenter



DataStax Studio for DSE Graph

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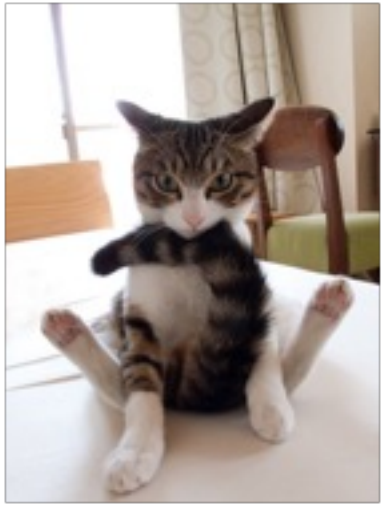
Q&A

Thank you!




DataStax


Community