Course Outline

Part One: Today’s Data Challenges

Variety and Complexity
  - Sources
  - Ingestion
  - Persistence
  - Management Topology
  - Utility
  - Use Cases

Time to Value
  - Storing Data
  - From Origin to Destination
  - Finding Data
  - Learning about Data
  - Data Cataloging
  - Data Preparation
  - Analysis and Communication

Part Two: Modern Data Solutions

Growth and Scalability
  - Data Scalability
  - Process Scalability
  - People Scalability
  - Analytic Scalability

Rethinking Data Architecture
  - Persistence and Topology
  - Data Flow
  - Services
  - Governance
  - What does this mean for your architecture?

Building for the Future
  - Future of Databases
  - Future of Data
  - Future of Analytics

Part Three: Data Pipeline Design

The Big Picture
  - Pipeline Components
Data Pipelines

Course Outline

Destination
  - Purpose and End Point
  - Timeliness

Origin
  - Data Supply and Begin Point
  - Data Type and Velocity

Data Flow
  - Data in Motion
  - Pipeline Boundaries
  - Blending Batch and Real Time

Data Storage
  - Data at Rest
  - Choosing Data Storage

Processing
  - Data Products and Data Value
  - Ingestion
  - Persistence
  - Transformation
  - Delivery

Workflow
  - Sequence of Activities

Monitoring
  - Pipeline Health

Technology
  - Pipeline Tools
  - Abundance of Tools

Design Summary
  - 7 Steps