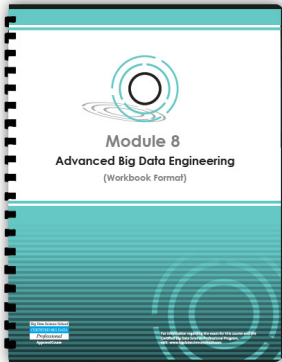


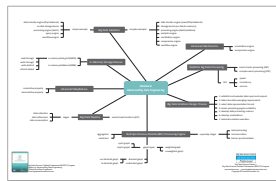
BDSCP Module 8: Advanced Big Data Engineering

This course builds upon Module 7 by exploring advanced topics pertaining to the storage and processing of Big Data datasets. Specifically it covers advanced Big Data engineering mechanisms, in-memory data storage and realtime data processing. It presents further considerations for developing MapReduce algorithms and also introduces the Bulk Synchronous Parallel (BSP) processing engine, along with a discussion of graph data processing. The Big Data mechanisms required for developing Big Data pipelines, its stages and the design process involved in developing Big Data processing solutions are also explored.

The following primary topics are covered:



- Advanced Big Data Engineering Mechanisms (including serialization & compression engines)
- In-Memory Storage Devices, In-Memory Data Grids & In-Memory Databases
- Read-Through, Read-Ahead, Write-Through & Write-Behind Integration Approaches
- Polyglot Persistence (including Explanation, Issues & Recommendations)
- Realtime Big Data Processing Concepts (including Speed Consistency Volume (SCV), Event Stream Processing (ESP) & Complex Event Processing (CEP))
- General Realtime Big Data Processing & Realtime Big Data Processing & MapReduce
- Advanced MapReduce Algorithm Design
- Bulk Synchronous Parallel (BSP) Processing Engine & BSP vs. MapReduce
- Graph Data & Graph Data Processing using BSP
- Big Data Pipelines (including Definition and Stages)
- Big Data with Extract-Load-Transform (ELT)
- Big Data Solutions (including Characteristics, Design Considerations & Design Process)

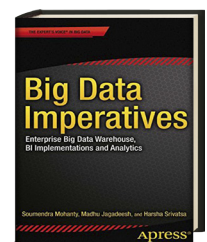


Duration: 1 Day

For more information, visit www.bigdatascienceschool.com.

Text Books

This BDSCP course module covers a range of in-depth topics that are described in the course booklet(s) and further elaborated by detailed technical coverage and case study examples in the accompanying *Big Data Imperatives: Enterprise Big Data Warehouse, BI Implementations and Analytics* text book.



Self-Study Kit

The materials for this course module can be purchased separately as part of the Module 8 Self-Study Kit, which includes additional materials and study aids. These materials are designed to prepare you for Exam B90.08 and are also suitable for general remote, self-paced study purposes.

For ordering information, visit www.bigdatascienceschool.com/store.

