Module 11
Advanced Big Data Architecture

Enterprise Data Warehouse (EDW) & Big Data

- EDW and Big Data integration
  - series approach
  - parallel approach
  - Big Data appliance approach
  - data virtualization
- EDW & Big Data comparison
- EDW
  - operational data store (ODS)
  - staging area
  - data warehouse
  - data mart
  - analytical database

Common Big Data Solution Environments

- Data Transformation
- Application Enhancement
- Analytical Sandbox
- Unstructured Data Store
- Batch Data Processing
- Online Data Repository
- Big Data Warehouse
- Operational Data Store
- Realtime Data Processing

Lambda Architecture

- terms
- why
- benefits
- when to use
- limitations/challenges
- characteristics
- recommendations
- layers
  - speed
  - batch
  - serving
  - query

Additional Big Data Patterns

- Centralized Access Management
- Integrated Access
- Centralized Dataset Governance
- Automated Processing Metadata Insertion
- Intermediate Results Storage
- Fan-in Ingress
- Fan-out Ingress

Big Data and Cloud Computing

- Big Data and cloud deployment models
  - private cloud
  - public cloud
  - hybrid cloud
- issues
- cloud delivery models
  - Infrastructure-as-a-Service
  - Platform-as-a-Service
  - Software-as-a-Service
- cloud patterns
  - Cloud-based Storage
  - Cloud-based Processing

Module 11: Advaned Big Data Architecture
Official Mind Map Supplement

Arcitura CERTIFIED Big Data Architect

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