Topics (Lecture note)	Database systems: the complete book (Chap no.)	Big Data Fundamentals (Chap & page no. ***)
LN1: Big data characteristics: 5Vs		Chap 1: 13-16
LN2: data models	Chap 2.1	Chap 1: 17-20
LN3: relational data model & algebra	Chap 2.2, 2.4, 2.5.3	Chap 7: 147-149
LN4: FDs & normal forms	Chap 3.1-3.3, 3.5	
LN5: XML basics; DTD& XML schema	Chap 11.1-11.4	
LN6: RDF and RDF schema		
LN7: Relational queries; query processing	Chap 2.4, Chap 14.1.2-14.1.5, 14.2.1 (index) Chap 15.3, 15.5, 15.6	
LN8: Graph queries & operators		
LN9: Approximate query processing (APQ): query driven		
LN10: APQ: data driven		
LN11: APQ: views	Chap 8.1- 8.2, 8.5	
LN12: querying data streams	Chap 23.4-23.5	Chap 6: 137-142
LN13: parallel DBMS & operators	Chap 20.1	Chap 6: 120-121
LN14: MapReduce	Chap 20.2	Chap 6:122-134
LN15: MapReduce & Beyond: parallel graph processing	Chap 20.3	Chap 2: 40-42
LN16: Hadoop Ecosystem		
LN17: NoSQL: ACID/EASE; KV & Column		Chap 5: 94-117 Chap 7: 152-157
LN18: NoSQL: Document DB & Graph DB		Chap 7: 159-160
LN19: NewSQL		Chap 7: 163
LN20: NewSQL & In-memory DBs		Chap 7: 163-179
LN21: BD-tractability		
LN22: BD processing: review		
LN23: BD Analytics: classification		Chap 1: 6-11, Chap 4: 78-79; Chap 8: 184, 190
LN24: BD Analytics: Clustering		Chap 8: 191-192
LN25: BD Analytics: Pattern mining	Chap 22.1-22.2	
LN26: BD Quality: issues		
LN27: BD Quality: Data Dependencies		
LN28: BD Quality: Data Cleaning		
LN29: BD Privacy & Security		Chap 3, 49-51
LN30: Conclusion & Vision		

*** "Big Data Fundamentals" Page -> section complete index:
http://ptgmedia.pearsoncmg.com/images/9780134291079/samplepages/9780134291079.pdf
the page numbers may vary due to different versions of the book.

Additional resources (color coded regions):

Hadoop: the definitive guide *http://hadoopbook.com/*

Mining of Massive Datasets*. Jure Leskovek, Anand Rajaraman and Jeffrey Ullman. v2.1, Cambridge University Press. 2014 (available online)*

Ethics of Big Data.
https://eecs.wsu.edu/~yinghui/mat/courses/fall%202015/resources/Ethics%20of%20Big%20Data.pdf

Regions not covered: refer to papers, reading list and surveys listed in the lecture notes.