INFO 6210

Data Management and Database Design

Books

Books

*Required text (All free online)*

Some textbooks are all available for free to NEU students via SpringerLink ([http://link.Springer.com/](http://link.springer.com/)). You must access SpringerLink from an NEU IP address to have full access and/or download these books.

If you are off-campus, in order to access resources provided through the Northeastern library outside the network, you should use their bookmarklet to load any page through the proxy: <http://library.northeastern.edu/bookmarklet>

*Required Texts*

The *required* textbooks we will be using in this class are:

**Database Systems A Pragmatic Approach** (2014) (This will be the primary book)

*Authors: Elvis C. Foster, Shripad V. Godbole*

ISBN: 978-1-4842-0878-6 (Print) 978-1-4842-0877-9 (Online)

<http://link.springer.com/book/10.1007/978-1-4842-0877-9>

**Principles of Distributed Database Systems, Third Edition** (2011)

*Authors: M. Tamer Özsu, Patrick Valduriez*

ISBN: 978-1-4419-8833-1 (Print) 978-1-4419-8834-8 (Online)

<http://link.springer.com/book/10.1007/978-1-4419-8834-8>

**Beginning Database Design from Novice to Professional** (2012)

*Authors: Clare Churcher*

ISBN: 978-1-4302-4209-3 (Print) 978-1-4302-4210-9 (Online)

<http://link.springer.com/book/10.1007/978-1-4302-4210-9>

Beginning PHP and MySQL (2010)

From Novice to Professional

W. Jason Gilmore

https://link.springer.com/book/10.1007/978-1-4302-3115-8

PHP and MySQL Recipes A Problem-Solution Approach (2016)

Frank M. Kromann

<https://link.springer.com/book/10.1007/978-1-4842-0605-8>

Expert MySQL (2012)

Charles Bell

<https://link.springer.com/book/10.1007/978-1-4302-4660-2>

SQL on Big Data - Technology, Architecture, and Innovation (2016)

Sumit Pal

<https://link.springer.com/book/10.1007/978-1-4842-2247-8>

**The Definitive Guide to MongoDB: A complete guide to dealing with Big Data using MongoDB** (2015)

Authors: David Hows, Peter Membrey, Eelco Plugge, Tim Hawkins

ISBN: 978-1-4842-1183-0 (Print) 978-1-4842-1182-3 (Online)

<http://link.springer.com/book/10.1007/978-1-4842-1182-3>

MongoDB Basics (2014)

David Hows, Peter Membrey, Eelco Plugge

<https://link.springer.com/book/10.1007/978-1-4842-0895-3>

Practical MongoDB Architecting, Developing, and Administering MongoDB (2015)

Shakuntala Gupta Edward, Navin Sabharwal

<https://link.springer.com/book/10.1007/978-1-4842-0647-8>

Pro MongoDB Development (2015)

Deepak Vohra

<https://link.springer.com/book/10.1007/978-1-4842-1598-2>

*Recommended Texts*

**Pro Hadoop Data Analytics**

Designing and Building Big Data Systems using the Hadoop Ecosystem

Authors: Kerry Koitzsch 2017

ISBN: 978-1-4842-1909-6 (Print) 978-1-4842-1910-2

<https://link.springer.com/book/10.1007/978-1-4842-1910-2>

**Pro Apache Hadoop**

Authors: Sameer Wadkar, Madhu Siddalingaiah 2014

ISBN: 978-1-4302-4863-7 (Print) 978-1-4302-4864-4

<https://link.springer.com/book/10.1007/978-1-4302-4864-4>

**Pro Spark Streaming**

The Zen of Real-Time Analytics Using Apache Spark

Authors: Zubair Nabi 2016

ISBN: 978-1-4842-1480-0 (Print) 978-1-4842-1479-4

<https://link.springer.com/book/10.1007/978-1-4842-1479-4>

**Beginning Neo4j (2015)**

Authors: Chris Kemper

ISBN: 978-1-4842-1228-8 (Print) 978-1-4842-1227-1 (Online)

<http://link.springer.com/book/10.1007/978-1-4842-122>

Big Data Made Easy

A Working Guide to the Complete Hadoop Toolset

Authors: Michael Frampton 2015

ISBN: 978-1-4842-0095-7 (Print) 978-1-4842-0094-0

<https://link.springer.com/book/10.1007/978-1-4842-0094-0>

The Definitive Guide to SQLite (2010)

Authors: Grant Allen, Mike Owens

ISBN: 978-1-4302-3225-4 (Print) 978-1-4302-3226-1 (Online)

<http://link.springer.com/book/10.1007/978-1-4302-3226-1>

The Definitive Guide to MongoDB: A complete guide to dealing with Big Data using MongoDB (2015)

Authors: David Hows, Peter Membrey, Eelco Plugge, Tim Hawkins

ISBN: 978-1-4842-1183-0 (Print) 978-1-4842-1182-3 (Online)

<http://link.springer.com/book/10.1007/978-1-4842-1182-3>

Beginning CouchDB (2009)

Authors: Joe Lennon

ISBN: 978-1-4302-7237-3 (Print) 978-1-4302-7236-6 (Online)

<http://link.springer.com/book/10.1007/978-1-4302-7236-6>

Beginning Neo4j (2015)

Authors: Chris Kemper

ISBN: 978-1-4842-1228-8 (Print) 978-1-4842-1227-1 (Online)

<http://link.springer.com/book/10.1007/978-1-4842-122>

Software

PostgreSQL (<http://www.postgresql.org/> )

Windows installers - Mac OS X - Linux downloads (<http://www.postgresql.org/download/> )

sqldf and SQLite (Relational databases)

* sqldf <https://cran.r-project.org/web/packages/sqldf/sqldf.pdf>
* SQLite <https://www.sqlite.org/download.html>

Riak, Redis, and HBase (NoSQl databases)

* Riak <http://docs.basho.com/riak/kv/2.1.4/downloads/>
* Redis http://redis.io/download
* HBase <https://hbase.apache.org/>

MongoDB and CouchDB (NoSQl document databases)

* MongoDB <https://www.mongodb.com>
* CouchDB <http://couchdb.apache.org/>

Neo4J (graph database)

* Neo4J <https://neo4j.com/download/>

python Anaconda

* <https://www.continuum.io/anaconda-overview>

R (Statisical programming language)

* R project <https://www.r-project.org/>

RStudio (IDE)

* RStudio <https://www.rstudio.com/products/rstudio/download3/>

Python Tutorials

Dive into Python <http://diveintopython.org>

Python 101 – Beginning Python <http://www.rexx.com/~dkuhlman/python_101/python_101.html>

The Official Python Tutorial <http://www.python.org/doc/current/tut/tut.html>

The Python Quick Reference <http://rgruet.free.fr/PQR2.3.html>

Python Fundamentals Training – Classes <http://www.youtube.com/watch?v=rKzZEtxIX14>

Python 2.7 Tutorial Derek Banas· <http://www.youtube.com/watch?v=UQi-L-_chcc>

Python Programming Tutorial - thenewboston <http://www.youtube.com/watch?v=4Mf0h3HphEA>

Google Python Class <http://www.youtube.com/watch?v=tKTZoB2Vjuk>

Nice free CS/python book <https://www.cs.hmc.edu/csforall/index.html>

datacamp.com <https://www.datacamp.com/tracks/python-developer>

R Tutorials

LearnR

<https://youtu.be/p3i7Kz6C_-4?list=PLFAYD0dt5xCwDNFdrqeNoU9t-nhAWkbKe>

Try python @codeschool: <http://tryr.codeschool.com>

Datacamp python Tutorials

<https://www.datacamp.com/>

rstudio online learning

<https://www.rstudio.com/online-learning/>