CS122D: Beyond SQL Data Management
—Lecture #13 —

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Announcements

• We’re still in NoSQL territory

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>W 4/21</td>
<td>Document stores: JSON and MongoDB</td>
<td>Ch. 9 NoSQL Distilled (old!)</td>
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<tr>
<td>M 4/26</td>
<td>Document stores: MongoDB (cont.)</td>
<td>MongoDB materials (as needed)</td>
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<td>W 4/28</td>
<td>NoSQL DB design principles</td>
<td>Ch. 3 NoSQL Distilled</td>
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<tr>
<td>M 5/03</td>
<td><strong>Midterm Exam (Checkpoint)</strong></td>
<td>3:30-4:50 PM -- be there!!!</td>
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<tr>
<td>W 5/05</td>
<td>Document DBs: Couchbase Server &amp; N1QL</td>
<td>CB Analytics paper</td>
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<tr>
<td>M 5/10</td>
<td>Document DBs: Couchbase Server (cont.)</td>
<td>CB materials (as needed)</td>
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<tr>
<td>W 5/12</td>
<td>Graph DBs: Graph modeling &amp; Neo4J</td>
<td>Ch. 11 NoSQL Distilled (old!)</td>
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<td>M 5/17</td>
<td>Graph DBs: Neo4J (cont.)</td>
<td>Neo4J materials (as needed)</td>
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<tr>
<td>W 5/19</td>
<td>Big Data Analytics: Google, MapReduce, HDFS</td>
<td>Big Data Platforms paper (skim)</td>
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• HW #4 should be well underway now

<table>
<thead>
<tr>
<th>HW4</th>
<th>Th 5/06</th>
<th>Mo 5/17 (11:59 PM)</th>
<th>CB Server</th>
<th>HW4 Setup</th>
<th>HW4 Details</th>
<th>HW4 Solution</th>
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<tr>
<td>HW5</td>
<td>Mo 5/17</td>
<td>Th 5/27 (11:59 PM)</td>
<td>Neo4J</td>
<td>HW5 Setup</td>
<td>HW5 Details</td>
<td>HW5 Solution</td>
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• **Today:** *Graph DBs (Neo4J)*

  + See Piazza for an important academic honesty note :-(

M. Carey, Spring 2021: CS122D
Our NoSQL Road Trip

- Cassandra: Relaxes 1NF, JSON/table-like, requires a schema
- MongoDB: Relaxes 1NF, JSON, no schema required, MQL
- Couchbase: Relaxes 1NF, JSON, no schema required, SQL++
- Neo4J:
Related OODB History Lessons (!)


  (https://doi.org/10.1145/93597.98739)

  (https://doi.org/10.1145/125223.125244)

  (https://doi.org/10.1007/BF01354878)
Let’s Jump to the Neo4J Slides