Topics in Database Systems: Main Memory and Embedded DBMS

CS848 Spring 2018

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Can (relational) database technology be used outside of the standard DBMS Client-Server model?

Can we understand data NOT managed by DBMS?

If so, how do we process queries/updates?
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Outline & Organization

• Lecture notes
  Fundamentals of Physical Design and Query Compilation
  Morgan & Claypool

• Organization:
  ⇒ Lectures (20%), Presentations (30%), Projects (50%)

• Prerequisites:
  ⇒ basic familiarity with First-Order Logic (CS245),
  ⇒ Intro to Databases (CS348), and
  ⇒ standard programming skills
    (although this is not an implementation class)

• Class web site: cs.uwaterloo.ca/david/cs848s18/
  schedule of classes, policies, etc.
In-class Presentations

2-3 presentations a week
⇒ 40-50 minutes presentation
⇒ 20+ minutes discussion

1 Presenter:
- Summary of paper/topic: Explanation of main ideas (in your own words), Examples
- Critique: Is this a real problem? Is the solution comprehensive? exceptions?
- Competition: What do other researchers/products do?
- Future: How can the approach be extended/new ideas

2 Everyone else:
- submit 2-3 questions on the paper(s) to be presented in advance
  ⇒ by Monday midnight before class to david@uwaterloo.ca
- participate in discussion
Assessment

1. class participation, including submitting questions (20%)
2. in class presentation of a topic/paper from the reading list (30%)
3. project presentation and delivery (50%)

NB: I’ll discuss projects in next class—please focus on thinking about your *in-class* presentation first!