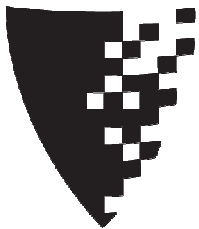


SQL: Triggers, Views, Indexes

Introduction to Databases

CompSci 316 Fall 2014



DUKE
COMPUTER SCIENCE

Announcements (Tue., Sep. 23)

- Homework #1 sample solution posted on Sakai
- Homework #2 due next Thursday
 - Midterm on the following Thursday
- Project mixer this Thursday
 - See my email about format
 - Email me your “elevator pitch” by Wednesday midnight
- Project Milestone #1 due Thursday, Oct. 16
 - See project description on what to accomplish by then

Announcements (Tue., Sep. 30)

- **Homework #2** due date extended to Oct. 7
- **Midterm** in class next Thursday (Oct. 9)
 - Open-book, open-notes
 - Same format as **sample midterm** (from last year)
 - Already posted on Sakai
 - Solution to be posted later this week

“Active” data

- Constraint enforcement: When an operation violates a constraint, abort the operation or try to “fix” data
 - Example: enforcing referential integrity constraints
 - Generalize to arbitrary constraints?
- Data monitoring: When something happens to the data, automatically execute some action
 - Example: When price rises above \$20 per share, sell
 - Example: When enrollment is at the limit and more students try to register, email the instructor

Triggers

- A **trigger** is an **event-condition-action (ECA)** rule
 - When **event** occurs, test **condition**; if condition is satisfied, execute **action**
- **Example:**
 - **Event:** some user's popularity is updated
 - **Condition:** the user is a member of "Jessica's Circle," and *pop* drops below 0.5
 - **Action:** kick that user out of Jessica's Circle



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