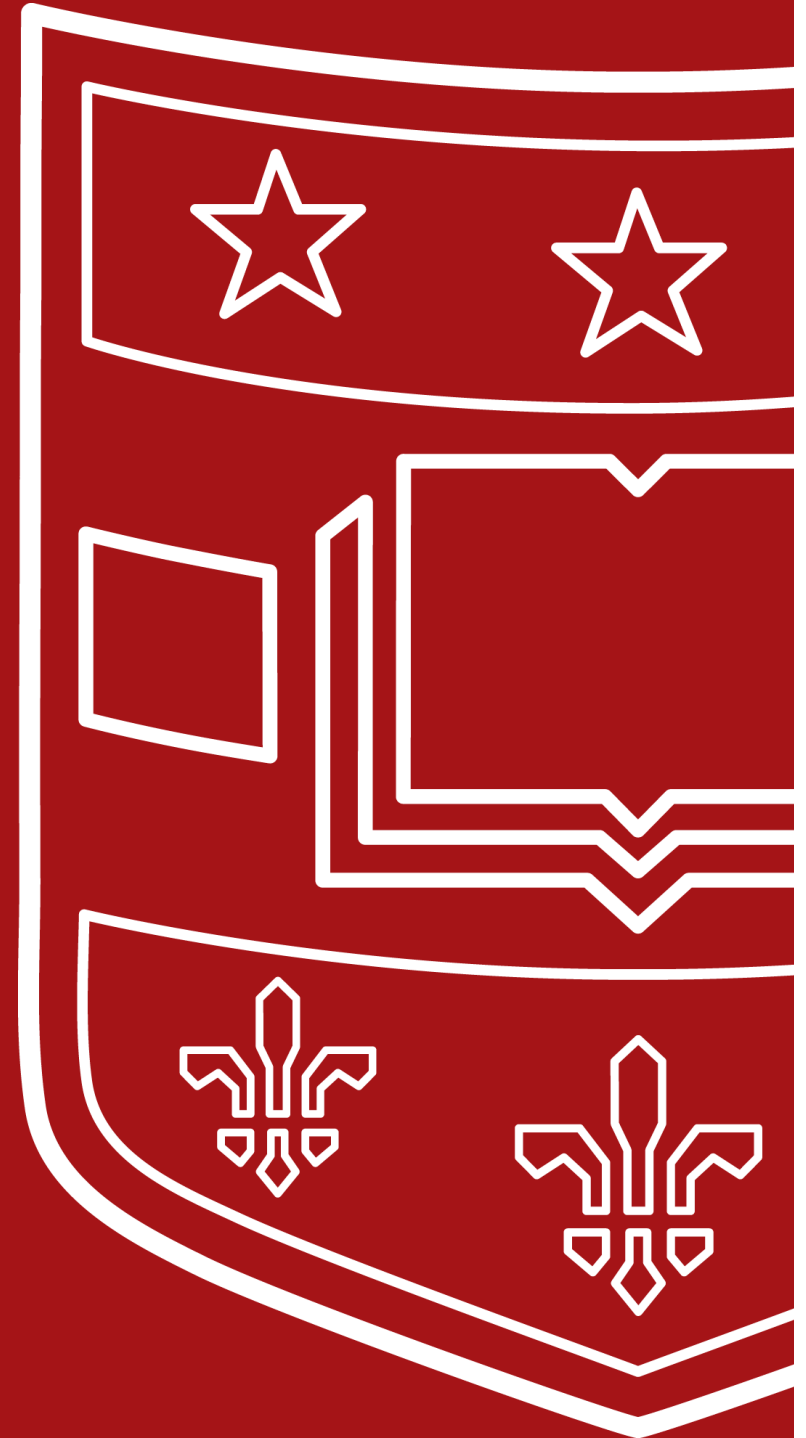


Database Management Systems

■ HW2



Homework #2



- Relational Operations
 - Select
 - Project
 - Rename
 - Join
 - Aggregate
 - Merge
 - getResult

Homework #2



- Queries
 - Jsqlparser
 - Process the parse tree, call appropriate operations
 - Query Tree?
- Use the provided API

Testing



- Different kinds of tests serve different kinds of purposes:
 - Unit tests
 - Integration tests
 - System tests
 - Acceptance tests

Unit Tests



- Helpful with the test driven design process
 - How do you expect your code to work?
- Test small amounts of code
- Keep things simple

Integration Tests



- How do the different classes / modules work together?
- More complex tests used later in the process
- Try to keep number of components involved as low as possible



2 UNIT TESTS, 0 INTEGRATION TESTS

via reddit.com/r/programmerhumor

System Testing



- Throw everything in from start to finish
 - Does the application meet the requirements?

Acceptance Testing



- Let your users try the product
 - Does it work the way they expect?
 - Does it work the way you expect?

Coding Tips



- Use assertions to perform the actual checks so that you can provide feedback when a test fails
- Use annotations (@Test, @Before, etc.)
- Create private methods to help with setup if needed
- Keep tests as short as possible

When things go wrong



- What does the test say?
- What errors were reported?
- What methods were called on the line of the error or immediately before it?
- For NullPointerExceptions: identify the things (objects) in the line that could potentially be null. Work backwards – when was that object supposed to be created?
- Use the debugger