ICA 4: Usage Based Testing

ICA - Overview

Goal: Record and replay user interactions

1. Configure Tomcat to record all requests
    1. Generate customizable log files
    2. Configure the server to log requests *or* use a custom-built log valve

2. Replay and check all responses
    1. Build script to parse log
    2. Run all requests against the app
    3. Check responses for "correctness"

ICA - Details

- Be able to capture and replay user interactions

- Think about <u>how you will identify failures</u>

- This has to be automated from start to finish

- In class on 10/7

ICA - Hints

1. Reset state for each replay
2. Use tools you have already learned
3. Explore server configurations to generate logs and save HTTP requests
4. Automate the parsing and replay with Ant and scripts
5. Think carefully about your oracle

Blank

Do the Following

1. Usage-based test suite for the empldir app

    1. Achieves 50% coverage

    2. Duration is for five minutes

2. Identify failures in the provided version of empldir

3. Write up test report

Test Report

- Error found (provide description)
- Which test found this:
  - Include actual test input that failed
  - Include oracle/expected output

Grading

100 total points

- – 10 points for the quiz
- – 15 points for complete automation
- – 15 points for in-class completion (late checkoff is until 10/13 EOH)
- – 30 points for building test suite
- – 30 points for the faults found (8 seeded)

Submission

- Implementation for capture and replay

- Replay test suite

- Coverage report for test suite

- Test report

Instructions:
- Only one zipped file with name format "Last name_first name_ICA#"
- Submit all reports in one submission. Multiple submissions will not be accepted. TA will only grade the last (latest) submission.