

# ICA 7: Formal Verification

# ICA 7 - Overview

**Goal:** Formally verify control flow behavior in servlets of a web application

1. Build control flow graphs of servlets
2. Reason about ordering of invocations

# ICA 7 - Details

1. Finish implementation of control flow graph builder
2. Test it on example and your own test cases
3. Be able to automatically iterate over generated graphs
4. Verify LTL properties over the graph

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# Implement

- Answer each question with yes/no/unknown
- Provide graph-based rationale for each answer (1-2 sentences)

# Grading

100 total points

- 15 points for the quiz
- 20 points for the correct CFG
- 15 points for on time completion
- 50 points for questions

# Submit

- On time delivery is 4:50:00pm **sharp**
- Submit the following:
  - CFG Builder code and any other automated tools built
  - Answers to each question
  - Control-flow graph in dotty format