

# Lecture 8 – Mutation Testing (Homework)

AAA705: Software Testing and Quality Assurance

Jihyeok Park



2024 Spring

- Mutation Testing
  - Fundamental Hypotheses
  - Overall Process
  - Mutation Generation
  - Kill vs Alive
  - Equivalent Mutants
  - How to Kill A Mutant
  - Scalability
  - Higher Order Mutants
  - Tools
- Test Flakiness

- Please see this document on GitHub:

<https://github.com/ku-plrg-classroom/js-mutest>

- The due date is 23:59 on Apr. 15 (Mon.).
- Please only submit `impl.ts` file to **Blackboard**.
- You can implement your own mutation testing tool in any programming language (e.g., Python, etc.) from scratch without using it.
- However, you need to provide instructions on how to build and execute your mutation testing tool, and it should produce the exactly same set of mutants from a given JavaScript program and provide the mutation score of a given test suite.

- Regression Testing

Jihyeok Park  
jihyeok\_park@korea.ac.kr  
<https://plrg.korea.ac.kr>