Lab: Abstract Interpretation

(Week 9)

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Assignment-3 Spec and Assignment-2 Marks Released

- Marks for Assignment-2 have been released and we will go through some of the issues today
- Remember to `git pull` or `docker pull` to get the code template for **Assignment-3**

Quiz-3 + Lab-Exercise-3 + Assignment-3

- Quiz-3 (5 points) (due date: **23:59, Tuesday, Week 10**)
  - Abstract domain and soundness, widening and narrowing
- Lab-Exercise-3 (5 points) (due date: **23:59, Tuesday, Week 10**)
  - **Goal:** Manually updating abstract states for assertion verification
  - **Specification:** `https://github.com/SVF-tools/Software-Security-Analysis/wiki/Lab-Exercise-3`
- Assignment-3 (25 points) (due date: **23:59, Tuesday, Week 11**)
  - **Goal:** Automated abstract trace update on ICFG for assertion verification and overflow detection
  - **Specification:** `https://github.com/SVF-tools/Software-Security-Analysis/wiki/Assignment-3`
  - **SVF AE APIs:** `https://github.com/SVF-tools/Software-Security-Analysis/wiki/AE-APIs`
  - **Test Cases:**
    - `Assignment-3/Tests/ae` (assertion verification)
    - `Assignment-3/Tests/buf` (overflow detection)