



Week 6:

- Code Inspection
- Exam Review



Software Inspection

- A process used by mature software organizations to inspect software products and reduce the number of "issues" in them prior to release.
- Originated in industry (IBM, ATT, others) starting in the 1970's
- Concerned about software quality



Software Inspection

- Different than code review or walk-throughs: more formal and aimed specifically at defect identification rather than training/familiarity.
- Different than testing: is not an exercising of the finished product. May be done before ready for testing.



Software Inspection

- Uses metrics to assist
- Experience shows significant advantage and cost savings through early detection of defects.
- Reference : *Software Inspection*, by Tom Gilb and Dorothy Graham, (Addison-Wesley, 1993)



Software Inspection

- Products that can be inspected: Requirements, Architecture, Design, or Code. *Usually between these stages as a product document flows from one to the next.*
- *In our case, we will inspect finished code that is ready for release.*



Software Inspection

- *A source document gives rise to each product .*
- There is a set of *rules* that are supposed to guide the development between source and product.
- There is a set of *checklist items* that are derived from the rules and guide the inspection.



Software Inspection

- The inspectors examine very carefully the product document, using the checklist questions as guide.
- They log possible "issues" by question or rule number.
- They do not: test product, discuss whether issues are defects, defend product, criticize authors, etc.



Software Inspection

- Goal: to log as many issues as possible in a short time frame: *try to assess as minor or major issues.*
- The author takes the log list and responds to it – the team does not do this!
- Roles: Leader, Scribe, Checker, Editor. *An author is often one checker.*



"Software Inspection" CSS341

- Source document: MP3 assignment
- Product document: One group's code
- Rules: I will furnish
- Checklist: I will furnish; you may add to.
- Inspection team: A 2-member group: Leader and Scribe. *Both checkers.*



“Software Inspection” CSS341

- Inspection product: A log list, giving line # in code, rule or question at issue, a phrase describing the issue very briefly, and an assessment as minor or major.
- Goal: log as many “issues” as possible
- Follow up: each group will get their report for further reflection.



Activity 10

- Work with partner on assigned code.
- No arguments! Just logging!



Activity R2

- Work with partner on this scope activity.
