

Computer Reliability

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Oct. 13, 2009

1 Administrivia

Announcements

Assignment

Read: Chapter 8.

Turn in answers to these questions: 1, 2, 5.

From Last Time

Computer and Network (In)Security

Coming Up

Professional ethics.

2 Chapter Summary

1. “My dog ate my homework” has become “My PC ate my homework”
2. In class exercise: Question 31.

3 Discussion Questions

1. My truck has a 100,000 mile warranty. My workstation (hardware) has a three year warranty Why doesn't my operating system or applications have a meaningful warranty?

Is there something inherently different about software?

2. Should all software have warranties? Especially life-critical software?
3. Simulation: *verification* of software against a model; *validation* of the model against real-life behavior. Example: surgical simulation.
4. Should software engineers be licensed? Characteristics of professions:
 - (a) Mastery of an esoteric body of knowledge.
 - (b) Autonomy.
 - (c) Formal organization.
 - (d) Code of ethics. See Software Engineering Code of Ethics and Professional Practice (<http://www.acm.org/serving/se/code.htm>).
 - (e) Social function.

Does software engineering exhibit all these characteristics?

5. See text for further discussion questions.