Academic Access Control Scenario

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Consider an access control scenario for an academic building involving the confidentiality and integrity of its sensitive resources [1].

The Department of Computer Science at University UNIV has a number of functions to keep running. Spring 2016 exams are kept in the department's safe room. Prof. Grace has access to the safe room. Mallter and Oscar, Prof. Grace's teaching assistants may access exams. However, to keep the safe's security code confidential they must not be in the safe room when the professor is present. Exams were being printed using the departmental printer. But there is a problem, and Trent, a technician is called to repair the printer. A visiting technician is allowed to enter the printer room. In general, visitors are only allowed in public areas and rooms they are supposed to carry out work.

Deliverables

Your task is to carefully read and think of the nuances in the given scenario. Follow the methodology tutorial given to you, and

- write down the subscenarios you have identified;

- following the steps in the Designing Normative Model section in the tutorial, write the corresponding norms in the format normName: $C/A/P(subject, object, ant, con)$;

- identify possible conflicts;

- resolve conflicts by capturing contextual preferences; and

- design state transition diagrams that cover all possibilities

References

[1] C. Tsigkanos, L. Pasquale, C. Menghi, C. Ghezzi, and B. Nuseibeh. Engineering topology aware adaptive security: Preventing requirements violations at runtime. In *Requirements Engineering Conference (RE), 2014 IEEE 22nd International*, pages 203–212, 2014.