Formal Specification and Model Checking of Some Variants of Anderson Mutual Exclustion Protocol

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Abstract. If your assignment is Ticket but not Anderson, you should replace Anderson with Ticket in the title. You are supposed to descdribe the abstract of your report.
Keywords: you are supposed to enumerate 4 or 5 keywords here.

1 Introduction

You are supposed to describe Introduction in this section. The final paragraph of this section mentions the organization of the rest of the paper.

You can cite papers [1–4].

The rest of the paper is organized as follows. Sect. 2 introduces some preliminaries. Sect. 3 ... Sect. 4 ... Sect. 5 ... Sect. 6 ... Sect. 7 ... Sect. 8 ... Sect. 9 ... Sect. 10 concludes the paper.

2 Preliminries

You are supposed to describe state machines, invariants, Kripke structures, linear temporal logic (LTL), etc. in this section.

You can include figures in your paper and refer to them like: Fig. 1 shows that there are five people who share one bike.

3 FAnderson: A Flawed Version of Anderson Protocol

You are supposed to describe a flawed version of Anderson mutual exclustion protocol. If you have tackled FTicket, your section title should be "A Flawed Version of Ticket Protocol."

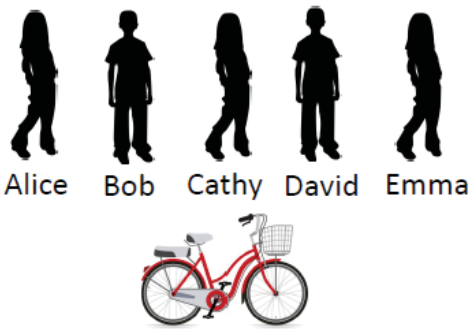

Fig. 1. Mutual exclusion

4 Specification of FAnderson

5 Model Checking of FAnderson

6 Anderson Protocol

7 Specification of Anderson

8 Model Checking of Anderson

9 Discussion

10 Conclusion

References

1. May Thu Aung, Tam Thi Than Nguyen, K.O.: Analysis of two flawed versions of a mutual exclusion protocol with Maude and SMGA. In: 7th International Conference on Software and Computer Applications (ICSA 2018), ACM (2018) to appear
2. May Thu Aung, Tam Thi Than Nguyen, K.O.: Guessing properties of the Qlock mutual exclustion protocol based on its graphical animations and confirming the properties by model checking. In: 7th International Conference on Software and Computer Applications (ICSA 2018), ACM (2018) to appear
3. Ogata, K.: A divide & conquer approach to liveness model checking under fairness & anti-fairness assumptions. Frontiers of Computer Science (2018) to appear
4. Ogata, K., Futatsugi, K.: Specification and verification of some classical mutual exclusion algorithms with CafeOBJ. In: OBJ/CafeOBJ/Maude Workshop at Formal Methods 1999, Theta (1999) 150–177