Software Engineering

http://proglang.informatik.uni-freiburg.de/ teaching/swt/2009

Exercise Sheet 7

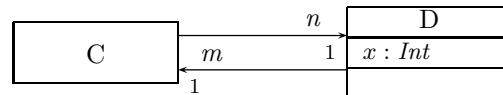## Exercise 1   (20/20 Points)
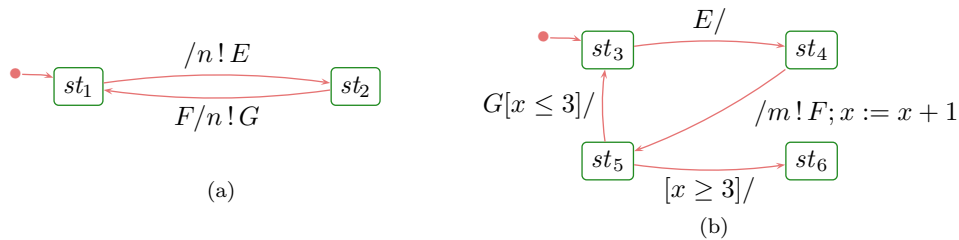

Figure 1: Class Diagram.

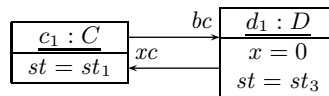Figure 2: State-Machines of classes C and D.

Figure 3: Object Diagram.

Consider the UML class diagram in Figure 1 and the state-machines of classes C and D as given by Figures 2(a) and 2(b).

(i) From the initial state as given by Figure 3 (c_1 and c_2 are not stable), this UML model has exactly two computations.

   Which ones?

   (Use (a reasonable variant or abbreviation of) the notation employed for computations in the lecture.)

(ii) For each of the LSCs given in Figure 4 to 9:

   • What does the chart require intuitively?
   • Argue why the UML model we consider satisfies this requirement, or clearly point out why, i.e. what aspect of the LSC is first violated by the system's computations.

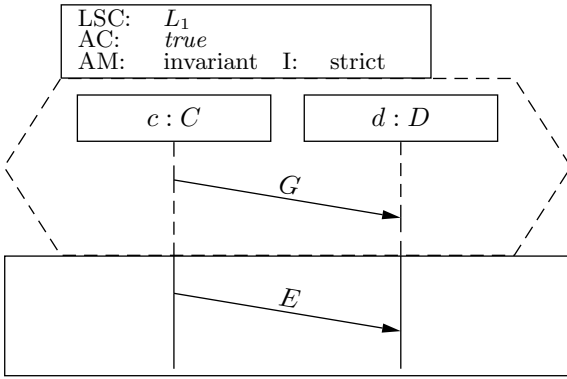   *(What computations need to be considered? What bindings? What computations suffixes?)*
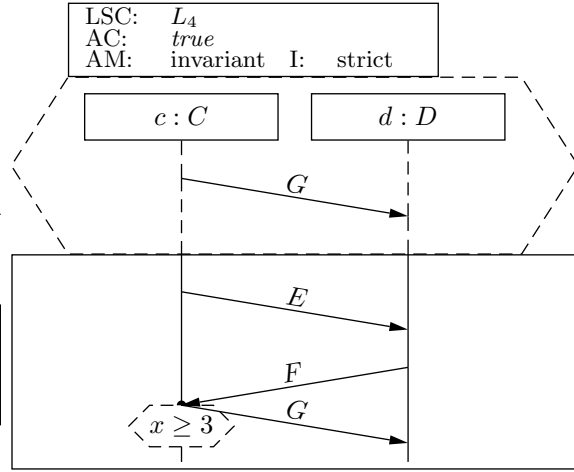
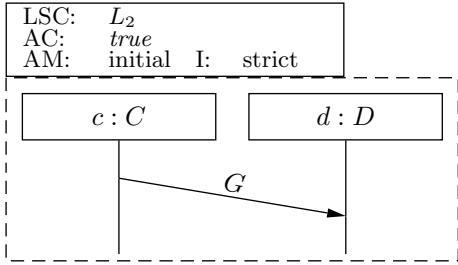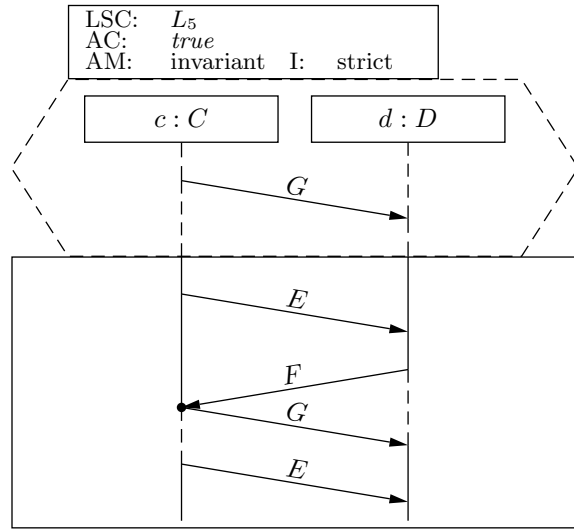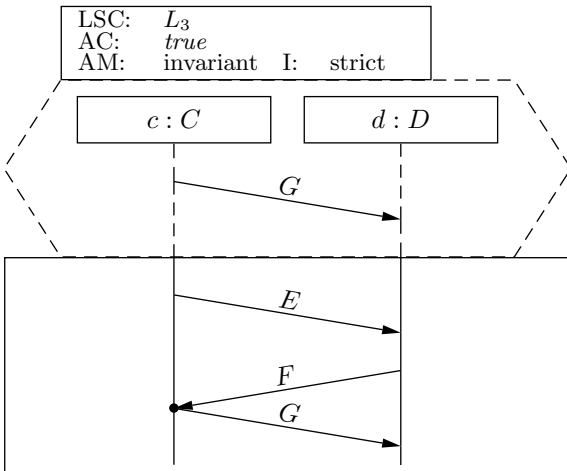Figure 4: LSC L_1.

Figure 7: LSC L_4.

Figure 5: LSC L_2.

Figure 8: LSC L_5.

Figure 6: LSC L_3.
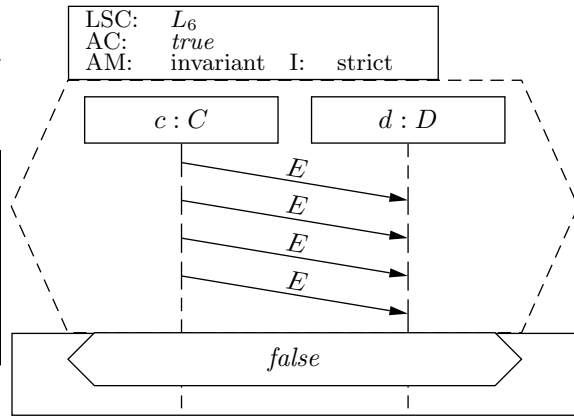

Figure 9: LSC L_6.