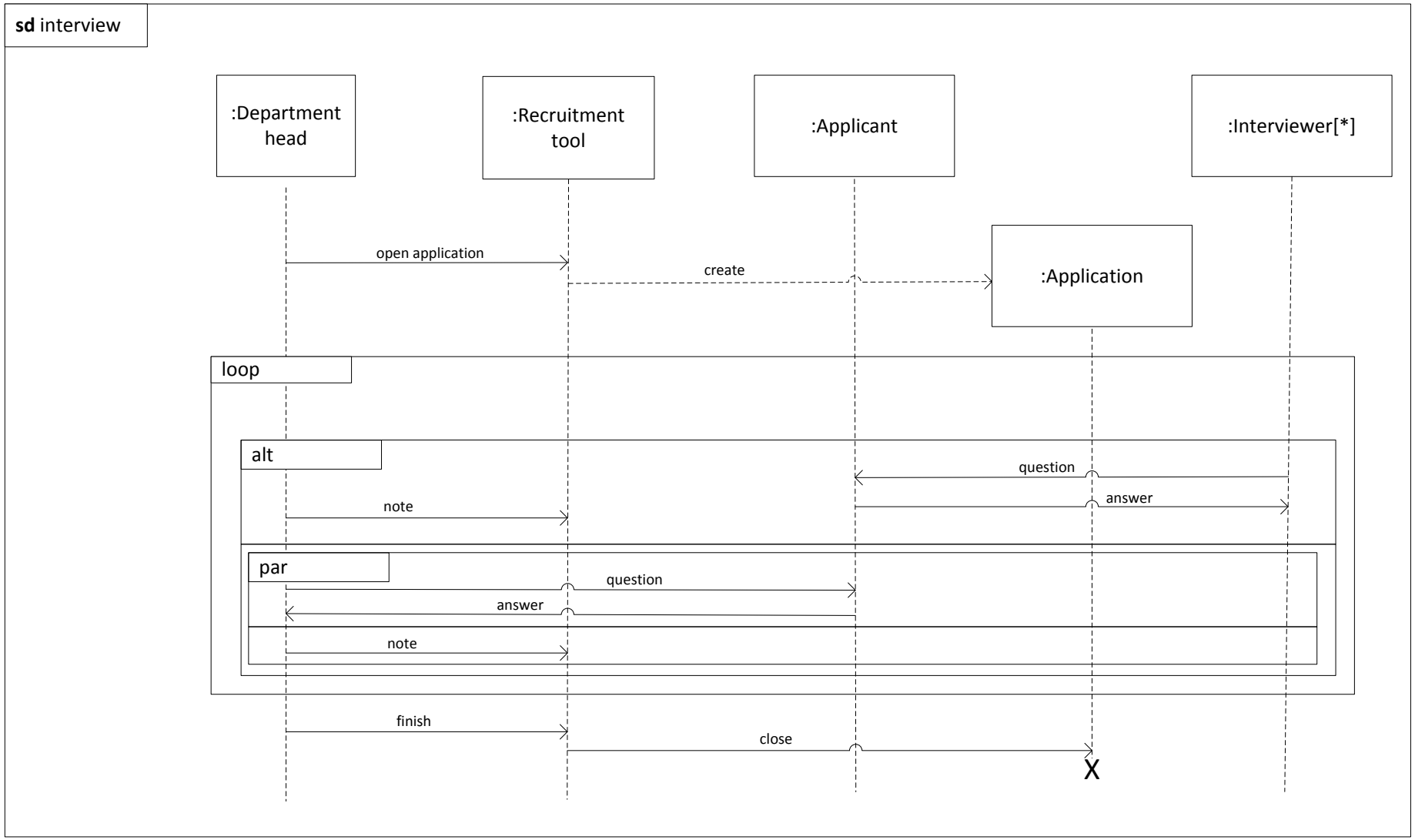
OBLIG II: REFINEMENT

Please note that the oblig should be solved by each student individually. Please send your solution as an attachment by email to kst@sintef.no. The format of the solution should be pdf. The solution should be named with your name.

Since this has been missunderstood before: Your name is not your ifi-username but your official name. A named solution is not a pdf file with your name in the file name.

Exercise I

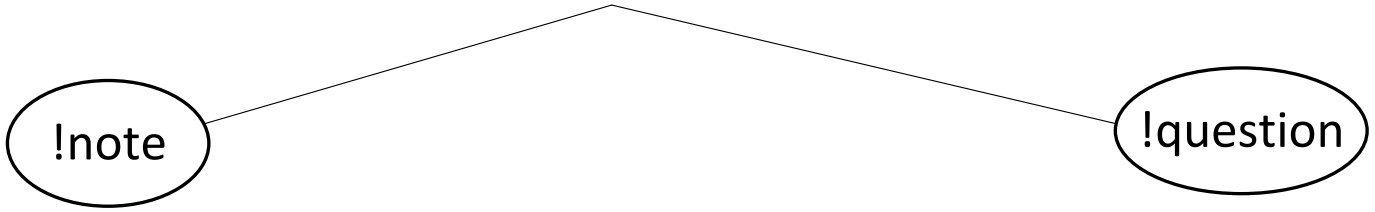


SINTEF

I a) What are the potential initial events of **sd** interview. Explain your answer. (Hint: there is more than one)

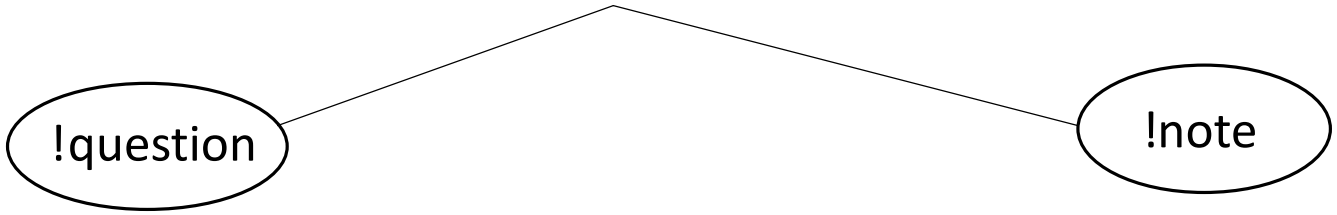
I b) What are the potential last events of **sd** interview. Explain your answer. (Hint: there is more than one)

I c) Consider the first operand of the **alt** construct. Make a tree describing all possible traces of this operand. (Hint: The root should be as below.



SINTEF

I d) Consider the second operand of the **alt** construct. Make a tree describing all possible traces of this operand. (Hint: The root should be as below.



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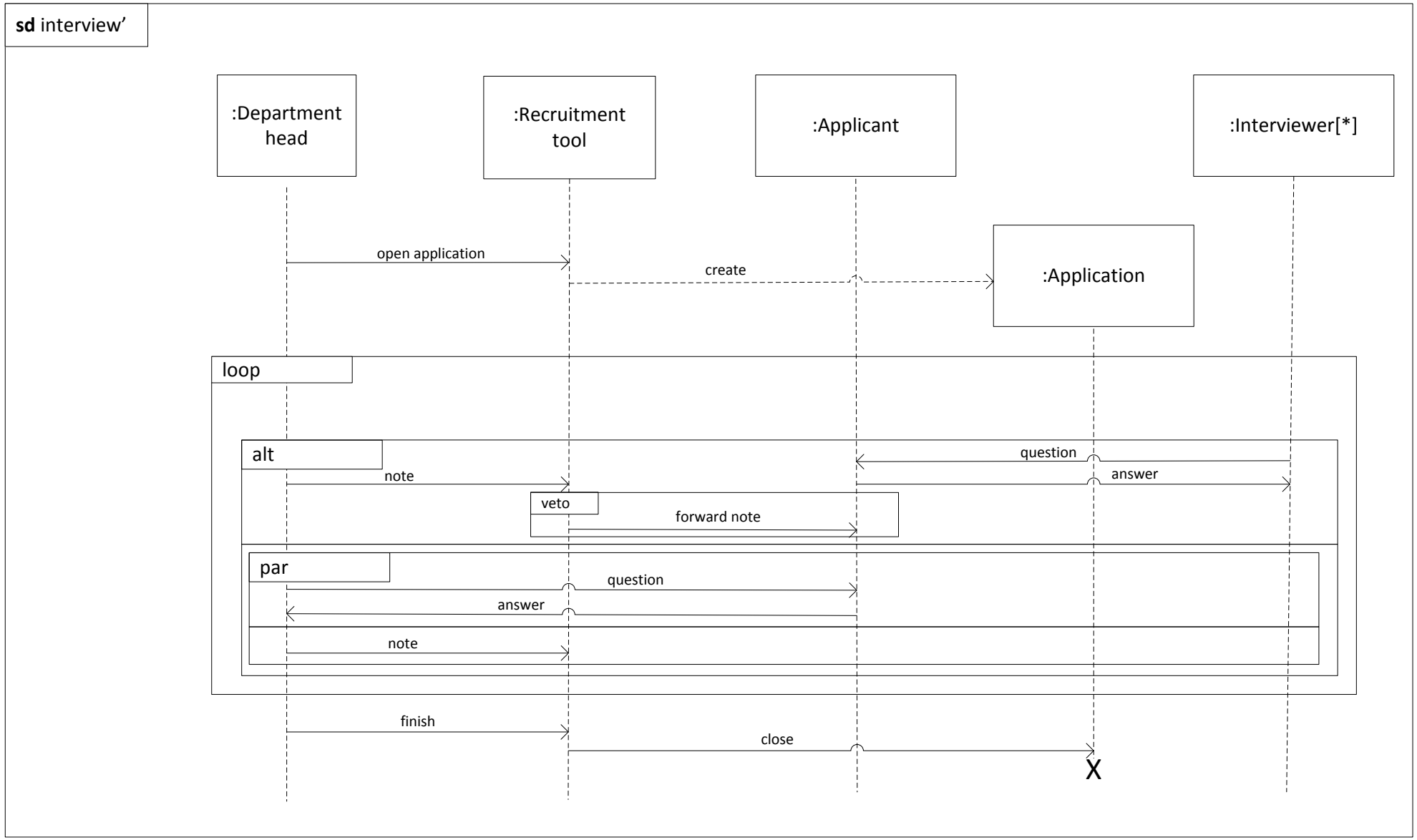
Exercise II



SINTEF

II a) Is **sd** interview' a narrowing of **sd** interview? Explain your answer.

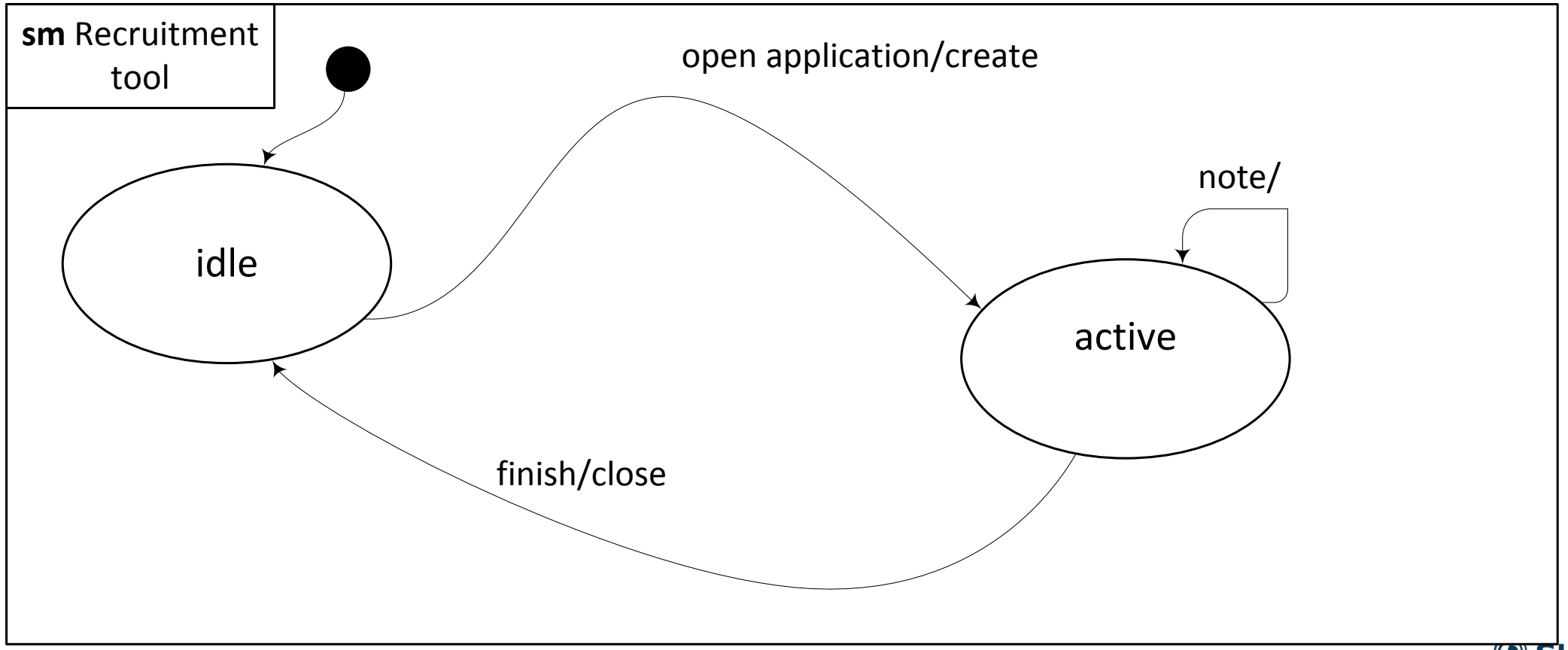
II b) Is **sd** interview' a supplementing of **sd** interview? Explain your answer.

II c) Make a diagram **sd** interview'' that is a narrowing of **sd** interview'. Explain your answer.

II d) Let **sd** interview''' be the sequence diagram obtained from **sd** interview' by replacing **alt** with **xalt**. How many interaction obligations is there in [[interview''']] (in the semantics of interview''')?

II e) Is interview''' a refinement of interview'? Explain your answer.

Exercise III



SINTEF

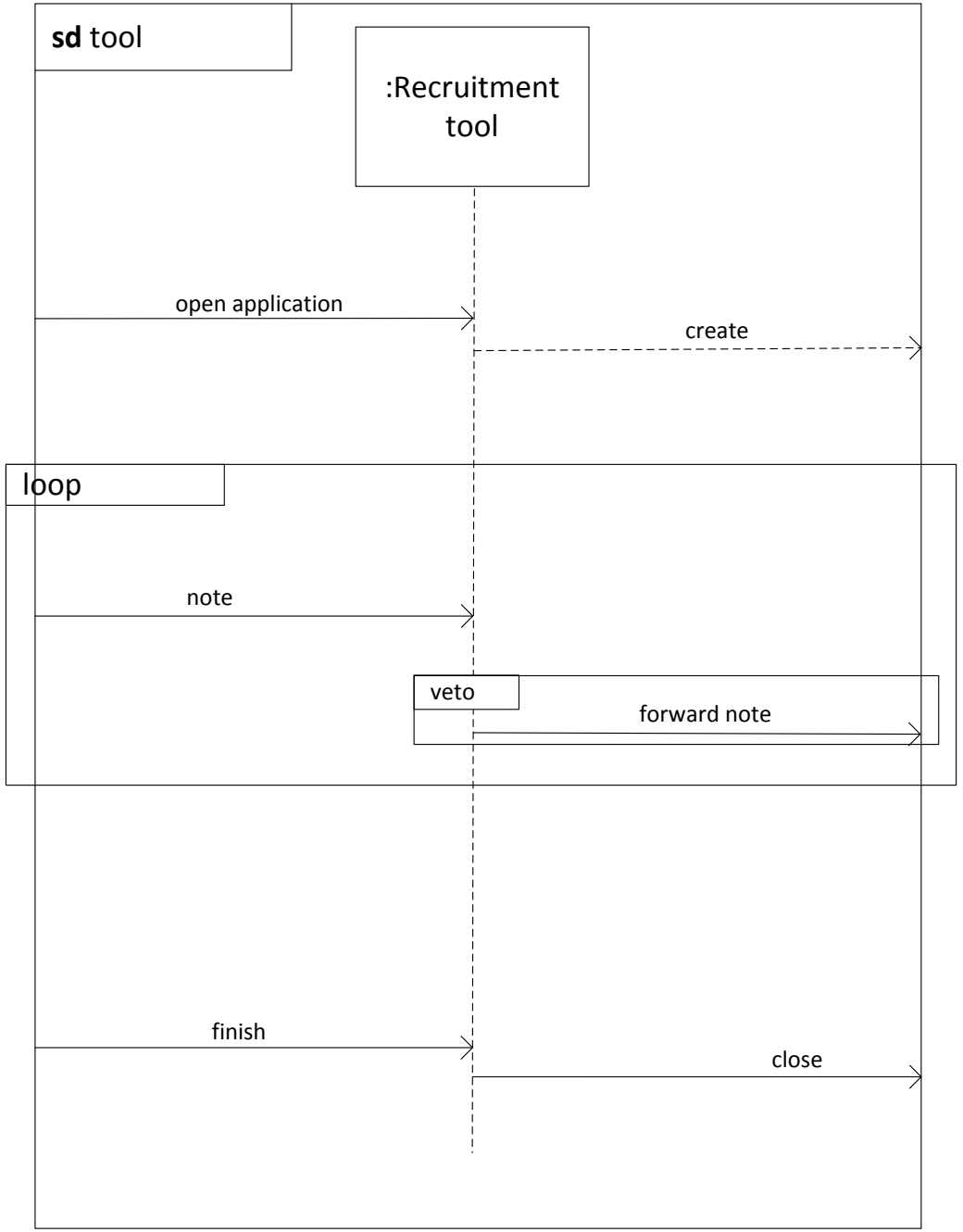
Remember that a UML state machine has no inconclusive traces. The positive traces are those it may produce for various input sequences. All other traces are negative.

III a) What is the shortest possible positive trace of **sm** Recruitment tool?

III b) Describe one negative trace of **sm** Recruitment tool.

III c) How many positive traces is there for **sm** Recruitment tool?

Exercise IV



SINTEF

- IV) Is **sm** Recruitement tool a refinement of the sequence diagram **sd** tool?

Deadline: October 23