Assignment 2

# Report Structure for Assignments

*Make sure you give the group identity and list all members in the group on the front page of your report.*

## Introduction

*In this section, you should give a short description of what you have done and why.*

## Problem description

*In this section, you shall describe the problem that you try to solve. It is the problem presented in the assignment but you must describe it in your own words and relate it to the classic problems. This is also the correct place to include a discussion about necessary properties of a olution (e.g., global invariant) and any kind of difficulties that you foresee.*

## Method/Solution

### Design decisions

*In this section, you shall discuss your approach to solve the problems identified in previous section. Include the design decisions in a stepwise manner. The difference between a design decision and an implementation has to do with the level of details. For example, processes, responsibilities and communication (who talks with whom) are all design decisions.*

### Verification decisions

*In this section, you shall discuss which properties that your solution must have to be correct. ou shall also discuss how you are going to verify each of these properties, e.g., which tests to run and which queries to give the model checker.*

## Results

### Implementation

*The source code need not be included in the report since you are supposed to submit the sr files to your drop box. However, this is the place where you can discuss the code you have written. Do you have any comments to your source code?*

### Verification

*This section contains your arguments for your solution meeting, or not meeting, the requirements. Are you confident with your solution? With what inputs did you test the program? To what extent have you used uppaal for verification? What queries did you run and what was the result of this? List your queries with the results you got from the model checker and explain what these results mean. For example: A[] !deadlock, result true, means that you have absence of deadlock. Given the verification, under what circumstances can you be sure that your program is correct?*

## Discussion

*This section contains a discussion of whether the problem was successfully solved. Have you identified any problems with your solution? Can your solution be improved and if so how? Was it anything that surprised you during the verification? Note: it’s seldom a good approach to conclude that the program is perfect. I want to see that you can estimate your success.*