CS2310 Milestone #1 Report

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Goal:
The term final project is about building an IC Card manage system on Android, and implement the I-card and C-card on it.

Introduction:
Each IC card stands for an action that needs to be done in order to complete a goal. Just like the IC card management system, I plan to implement the IC card management system on Android, such that the system can be mobilized.

Function:
In order to move the IC card management system onto mobile phone, firstly we should add the function of adding, editing and deleting IC cards. In addition, since adding the IC cards one by one would need a lot of time, and if we already have a complete IC card system on our computer, importing the XML file from the computer-based version of IC card management system into the mobile phone would be much more convenient, and can save time as well.

Besides the fundamental functions we mentioned above, we also need to add some extra functions to the IC cards, so that their relations or orders could be reflected in some way. In this way, I plan to divide the IC card to be I-card and C-card, and I-card denotes the names of IC cards while C-cards denote the relationships and control flows of the actions. With these two kinds of cards, the user could easily get the overall view of the activity by checking I-cards and obtain the order of all the individual actions by looking at C-cards. As for the property of time critical, the user would be able to set the deadline for the IC card and set an alarm for that, hence the user would be reminded when the IC card should be executed.

Challenges:
1. The first challenge is how to divide IC card to be I-card and C-card, which is converting the series of IC cards to a petri-net.
2. The second challenge is to program on Android emulator and to display the constructed petri-net properly on the emulator. And since the screen of the emulator is very limited just like a real phone, how to display the whole petri-net needs more consideration and work.

Feasibility:
The android emulator provides strong functionality and practicality, such that it is feasible to implement the IC card system on it. And according to the theory of IC card and petri-net, with a series of IC cards, it is possible to convert them to a petri-net. Since the web-based version of IC card management system has already been built, the mobilized version would be able to come out soon.