

CS 744 - Management Issues in Software Engineering
Spring 2018
A Visual Tool for Monitoring Network Communication
Clarifications and changes to the project

1 Credit cards and Credit card accounts

The following are concerned with credit cards and credit card accounts.

- A credit card account may be associated with ONE or MORE credit cards. For example, Account A may have three cards Card 1, Card 2 and Card 3 associated with it, and Account B may have two cards Card 4 and Card 5 associated with it. It is the account that has the maximum spending limit. Any purchase, refund or payment done through a credit card transaction will actually change the balance in the account.
- A credit card must be associated with exactly ONE account.
- It should be possible to add/delete/modify a credit card, and add/delete/modify a credit card account.
- If a new credit card account is created, you must also create a new credit card.
- If you create a new credit card, you may add it to an existing credit card account or create a new account.
- If a credit card is deleted, the corresponding account will be kept if and only if there is at least one other credit card associated with that account. Otherwise (if it is the only credit card associated with the account), the account must also be deleted.
- If a credit card account is deleted, then all credit cards associated with this account must also be deleted.
- A credit card account can be deleted if and only if the balance in the account is ZERO.

2 Other changes

The following are changes concerned with the network.

- A store cannot be used as a relay station. In other words, when a transaction is sent from a store to the processing center (or a response is sent from the processing center to a store), the path should not include any store.
- The constraint on “shortest path” in the problem description is now removed. So, any transaction/response can take any path from its origin to destination. The project team is encouraged to find out various algorithms to choose efficient path in terms of weights, load or other considerations.