# Chapter 8 Re - Discuss Transaction Management

In this Chapter, we would discuss several problems about Transaction Management.

1. *How Wrongly Recovery, Transaction Abortion, and Serializable Transaction influence each other ?*
2. Deadlock among Transactions. *The Deadlock is normally caused by several Transactions, these Transactions may need to wait the resources which has been occupied by other Transactions, such as Lock.*
3. The problem caused by ‘Long Transaction’. *In some application, there may need intersection between Human and Computer.* Such as CAD system and ‘Work Flow’ system, such intersection may stay for long time. However, in these system, the consistency status need to be stayed. But however, the Concurrency Control can not control the work well, since the Lock may be occupied by several days, and human decision may be one part of ‘Transaction’.

Chapter 8.1 Serializable and Recoverable

Chapter 8.1.1 Dirty Data

Chapter 8.1.2 Cascade Rollback

Chapter 8.1.3 Recoverable Schedule

Chapter 8.1.4 Schedule to Avoid Cascade Rollback

Chapter 8.1.5 Management on Rollback Based on Lock

Chapter 8.1.6 Commit based on Array

Chapter 8.1.7 Logical Logging

Chapter 8.1.8 Recover from Logical Logging