Chapter 8.1 Serializable and Recoverable

In this Chapter, we would introduce *several parts of Transaction Management*:

1. How Recovery, Transaction Abortion, and maintain Serializable, coordinate with each other ?
2. Deadlock Management among Transactions, Deadlock is caused by several Transactions, these Transactions may need to wait the resources occupied by other Transactions.
3. The problem caused by ‘Long Transaction’. In some applications, human and computers need to do the interaction, such as CAD system and ‘work flow’ system, such intersection can happen for several days. These system and short system need to keep the Database System consistent. Since the Lock needs to be occupied for several days, so human decision may also part of ‘Transaction’.

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