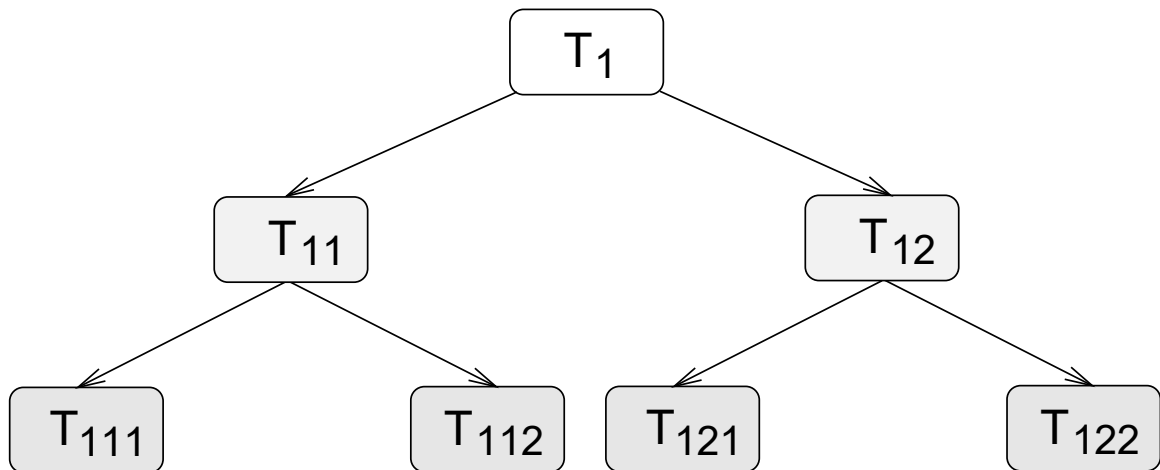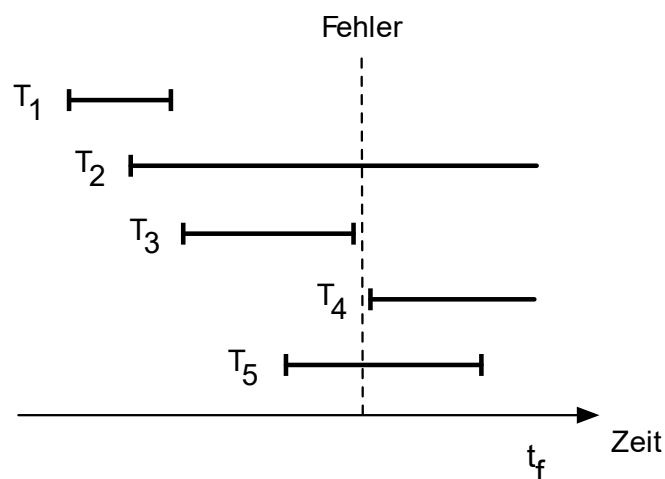# Transaction Processing
Exercise 7

Assignment 1: Explain the difference of closed nested transactions, open nested transactions, Sagas and detached transactions on the following example:

What happens in the different models when transaction T_{112} aborts? Why do we need advanced transaction models in this case?

Assignment 2: Describe the importance of recovery! Which system components are needed for the recovery.

Assignment 3: In the following example, what does the recovery manager need to ensure regarding the persistency of modifications?

Assignment 4: Assign the following problems to the given error classes and explain these classes:

1. **operating system error**
2. **Head-Crashes**
3. **transaction abort by the system**

Assignment 5: **Consider the errors of the previous assignment. Which recovery classes are needed to correct these errors?**

Assignment 6: **Explain the concept and structure of an log.**

Assignment 7: **Explain the different logging methods. Discuss the advantages and disadvantages of each method. Explain the concept of WAL.**

Assignment 8: **Explain the concept of a savepoint. Discuss the different types of savepoints.**

Good Luck!