Session 2. Different Kinds of Constraints: Different Pruning Strategies

Different Kinds of Constraints Lead to Different Pruning Strategies

- Constraints can be categorized as

  - Pattern space pruning constraints vs. data space pruning constraints

- Pattern space pruning constraints

  - Anti-monotonic: If constraint c is violated, its further mining can be terminated

  - Monotonic: If c is satisfied, no need to check c again

  - Succinct: if the constraint c can be enforced by directly manipulating the data

  - Convertible: c can be converted to monotonic or anti-monotonic if items can be properly ordered in processing

- Data space pruning constraints

  - Data succinct: Data space can be pruned at the initial pattern mining process

  - Data anti-monotonic: If a transaction t does not satisfy c, then t can be pruned to reduce data processing effort