

## Week 4 Tutorial exercises (March 31<sup>st</sup> 2006)

### Sequential Pattern Analysis

#### Exercise 1. AprioriAll

Apply the AprioriAll algorithm to the following customer sequence dataset using minimum support  $s=33\%$ . Identify the maximal sequence patterns.

<i>S.ID</i>	<i>Sequence</i>
1	<{1}{5}{2}{3}{4}>
2	<{1}{3}{4}{3}{5}>
3	<{1}{2}{3}{4}>
4	<{1}{3}{5}>
5	<{4}{5}>

#### Exercise 2. GSP

Apply the GSP algorithm to the following dataset using minimum support  $s=3$  transactions. Show the candidates and the resulting large sequential items.

<b>SID</b>	<b>Sequence</b>
10	<a(ac)(adc)>
20	<(ba)(fb)a>
30	<(ab)bfbae>
40	<a(af)d>
50	<d(fac) >
60	<(adf)(ae)>

#### Exercise 3. FreeSpan

Apply FreeSpan to the previous sequence database.

#### Exercise 4. PrefixSpan

Apply PrefixSpan to the previous sequence database.