



7.4. PrefixSpan: Sequential Pattern Mining by Pattern-Growth

In-Lecture Question

Question

For the given sequence database, which of the following belongs to the $\langle f \rangle$ -projected database?

- ☐ $\langle (c_)\rangle$
- ☐ $\langle (ab)(df)cb \rangle$
- ☐ $\langle cb \rangle$
- ☐ $\langle (_a)cbc \rangle$

SID	Sequence
10	$\langle a(abc)(ac)d(cf) \rangle$
20	$\langle (ad)c(bc)(ae) \rangle$
30	$\langle (ef)(ab)(df)cb \rangle$
40	$\langle eg(af)cbc \rangle$

Question

For the given sequence database, which of the following belongs to the $\langle f \rangle$ -projected database?

- ☐ $\langle (c_)\rangle$
- ☐ $\langle (ab)(df)cb \rangle$
- ☐ $\langle cb \rangle$
- ☐ $\langle (_a)cbc \rangle$

SID	Sequence
10	$\langle a(abc)(ac)d(cf) \rangle$
20	$\langle (ad)c(bc)(ae) \rangle$
30	$\langle (ef)(ab)(df)cb \rangle$
40	$\langle eg(af)cbc \rangle$

- ☐ **Answer:** $\langle (ab)(df)cb \rangle$
- ☐ **Explanation:** All the sequences in the database will be represented as follows in the $\langle f \rangle$ -projected database.
 - ☐ SID-10: $\langle \rangle$
 - ☐ SID-20: $\langle \rangle$
 - ☐ SID-30: $\langle (ab)(df)cb \rangle$
 - ☐ SID-40: $\langle cbc \rangle$
- ☐ By simple comparison, we can see that B belongs to the $\langle f \rangle$ -projected database.