Temporal join Example

For each couple \( t \in T \) \( s \in S \) find the period when they are both valid.
B. Short method

Always $\max(\text{startDate}) - \min(\text{endDate})$

But check that they intersect!

```
SELECT s.SSN, s.salary, t.title, maxDate(s.FromDate, t.FromDate) AS StartDate,
       minDate(s.ToDate, t.ToDate) AS EndDate
FROM S s, T t
WHERE s.SSN = t.SSN
   AND maxDate(s.FromDate, t.FromDate) < minDate(s.ToDate, t.ToDate)
```

1. No interaction means
   - $s.\text{end} < a.\text{start}$
   - $t.\text{end} < a.\text{start}$

2. Partial interaction if $s.\text{start} > t.\text{start}$ and $s.\text{end} < t.\text{start}$

3. By nature we know that $s.\text{end} > t.\text{start}$ and $s.\text{start} > t.\text{end}$

In particular, (with this)

- $a.\text{end} < t.\text{start}$
- $a.\text{end} > s.\text{start}$

So we can write it this because: