

## **Deadline: week 13 → monday 16:40**

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### **Description:**

Work on 3 tables of the form Ta(aid, a2, ...), Tb(bid, b2, ...), Tc(cid, aid, bid, ...), where:

- aid, bid, cid, a2, b2 are integers;
- the primary keys are underlined;
- a2 is UNIQUE in Ta;
- aid and bid are foreign keys in Tc, referencing the primary keys in Ta and Tb, respectively.

### **Task:**

**a.** Write queries on Ta such that their execution plans contain the following operators:

- clustered index scan;
- clustered index seek;
- nonclustered index scan;
- nonclustered index seek;
- key lookup.

**b.** Write a query on table Tb with a WHERE clause of the form *WHERE b2 = value* and analyze its execution plan. Create a nonclustered index that can speed up the query. Examine the execution plan again.

**c.** Create a view that joins at least 2 tables. Check whether existing indexes are helpful; if not, reassess existing indexes / examine the cardinality of the tables.