

$$t1 \leftarrow \Pi_{person_name} (\sigma_{company_name="First Bank Corporation"}(works))$$

$$1. \text{ result} = \Pi_{person_name, city} (t1 \bowtie employee)$$

2.

$$(\Pi_{person_name} (\sigma_{company_name="First Bank Corporation" \wedge salary > 100000}(works))) \bowtie employee$$

3.

$$\Pi_{person_name} ((works \bowtie company) \bowtie employee)$$

4,

$$company \div (\Pi_{city} (\sigma_{company_name="Small Bank Corporation"}(company)))$$

5,

$$t1 \leftarrow_{company} G_{avg(salary) \text{ as } salary}(works)$$

$$\text{result} = \Pi_{t1.company_name} (\sigma_{t1.salary > t2.salary} (t1 \times \rho_{t2(salary)} (\Pi_{salary} (\sigma_{company_name="First Bank Corporation"}(t1)))))$$