Question Bank

- employee (person-name, street, city)
- works (person-name, company-name, salary)
- company (company-name, city)
- manages (person-name, manager-name)

Find the names of all employees who work for First Bank Corporation

Find the names of all employees who work for First Bank Corporation

- $\Pi_{\text{person-name}} (\sigma_{\text{company-name} = \text{“First Bank Corporation”}} (\text{works}))$

Find the names and cities of residence of all employees who work for First Bank Corporation

Find the names and cities of residence of all employees who work for First Bank Corporation

- $\Pi_{\text{person-name, city}} (\sigma_{\text{company-name} = \text{“First Bank Corporation”}} (\text{employee} * \text{works}))$

Find the names, street address, and cities of residence of all employees who work for First Bank Corporation and earn more than $10,000 per annum

Find the names, street address, and cities of residence of all employees who work for First Bank Corporation and earn more than $10,000 per annum

- $\Pi_{\text{person-name, street, city}}(\sigma(_{\text{company-name = “First Bank Corporation” } \wedge \text{ salary > 10000}})\text{works} * \text{employee})$

. Find the names of all employees in this database who live in the same city as the company for which they work

. Find the names of all employees in this database who live in the same city as the company for which they work

. Find the names of all employees in this database who live in the same city as the company for which they work

- Пperson-name (employee * works * company)

Find the names of all employees who live in the same city and on the same street as do their managers.

Find the names of all employees who live in the same city and on the same street as do their managers.

$$\Pi_{\text{person-name}}((\text{employee} * \text{manages}) * (\sigma_{\text{manager-name} = \text{employee2.person-name} \wedge \text{employee.street} = \text{employee2.street} \wedge \text{employee.city} = \text{employee2.city}})(\rho_{\text{employee2}}(\text{employee})))$$

Find the names of all employees in this database who do not work for First Bank Corporation

Find the names of all employees in this database who do not work for First Bank Corporation

$\Pi_{\text{person-name}} (\sigma_{\text{company-name} = \text{“First Bank Corporation”}}(\text{works}))$

Find the names of all employees in this database who do not work for First Bank Corporation

- $\Pi_{\text{person-name}}(\text{employee}) - \Pi_{\text{person-name}}(\sigma_{\text{company-name} = \text{“First Bank CorporatioN”}}^{(\text{EMPLOYEE})})$

Find the names of all employees who earn more than every employee of Small Bank Corporation

Find the names of all employees who earn more than every employee of Small Bank Corporation

- $\Pi_{\text{person-name}}$ (works) – ($\Pi_{\text{works.person-name}}$ (works *($_{\text{works.salary} \leq \text{works2.salary} \wedge \text{works2.company-name} = \text{“Small Bank Corporation”}}$)$\rho_{\text{works2}}$(works)

Assume the companies may be located in several cities. Find all companies located in every city in which Small Bank Corporation is located.

Assume the companies may be located in several cities. Find all companies located in every city in which Small Bank Corporation is located.

$\Pi_{\text{company-name}}$ (company ÷(Π_{city} ($_{\sigma\ \text{company-name} = \text{“Small Bank Corporation”}}$(company)