

1. Domaća naloga

a) $\pi_{\text{person-name}}(\sigma_{\text{company-name} = \text{"First Bank Corporation"}}(\text{Works}))$

$\{ \langle x \rangle \mid \langle x, y, z \rangle \in \text{Works} (y = \text{"First Bank Corporation"}) \}$

b) $\pi_{\text{person-name, city}}(\sigma_{\text{company-name} = \text{"First Bank Corporation"}}(\text{Works})) \bowtie \text{employee}$

$\{ \langle x, z \rangle \mid \langle x, y, z \rangle \in \text{employee} \wedge \exists a, b, c (\langle a, b, c \rangle \in \text{Works} (b = \text{"First Bank Corporation"})) \}$

c) $\pi_{\text{person-name, street, city}}(\sigma_{\text{company-name} = \text{"First Bank Corporation"} \wedge \text{salary} = \text{"10000"}}(\text{Works})) \bowtie \text{employee}$

$\{ \langle x, y, z \rangle \mid \langle x, y, z \rangle \in \text{employee} \wedge \exists a, b, c (\langle a, b, c \rangle \in \text{Works} (b = \text{"First Bank Corporation"} \wedge c = \text{"10000"})) \}$

d) $\pi_{\text{person-name}}(\sigma_{\text{city} = \text{"Maribor"}}(\text{company})) \bowtie \text{Works} \cup$

$\pi_{\text{person-name}}(\sigma_{\text{city} = \text{"Maribor"}}(\text{employee})) \bowtie \text{Works}$

$\{ \langle x \rangle \mid \langle x, y, z \rangle \in \text{Works} \wedge \exists a, b (\langle a, b \rangle \in \text{company} (b = \text{"Maribor"})) \wedge y = a \wedge \exists m, w (\langle x, m, w \rangle \in \text{employee} (w = \text{"Maribor"})) \}$

e)

f) $(\pi_{\text{person-name}}(\text{Works})) / (\pi_{\text{company-name} = \text{"First Bank Corporation"}}(\text{Works}))$

$\{ \langle x \rangle \mid \langle x, y, z \rangle \in \text{Works} (y \neq \text{"First Bank Corporation"}) \}$

g) $\pi_{\text{person-name}}(\sigma_{\text{company-name} \wedge \text{salary} > \sigma_{\text{company-name} = \text{"Small Bank Corporation"}}}(\text{Works}))$