

Lab 1

1.1

$\Pi_{id,name} (\sigma_{company_name = "BigBank"} (employee \bowtie employee.person_name = works.person_name))$

1.2

$\Pi_{id,name,city} (\sigma_{company_name = "BigBank"} (employee \bowtie employee.person_name = works.person_name))$

1.3

$\Pi_{id,name,street,city} (\sigma_{company_name = "BigBank" \wedge salary > 10000} (employee \bowtie employee.person_name = works.person_name))$

1.4

$\Pi_{id,name} (\sigma_{employee.city = company.city} (employee \bowtie employee.person_name = works.person_name \bowtie works.company_name = company.company_name \bowtie company))$

2.1

$\Pi_{id,name} (\sigma_{company_name \neq "BigBank"} (employee \bowtie employee.person_name = works.person_name))$

2.2

$\Pi_{id,name} (\sigma_{max(salary)} (employee \bowtie employee.person_name = works.person_name))$

3

Insert case that can cause violation – trying to give the value to the “dept_name” attribute, which does not exist

Delete case that can cause violation – trying to delete the value of key in the department table.

4

“person_name”