

## LAB\_1

### Kubayeva Aruzhan

- 1.1  $\Pi id, person\_name (\sigma_{company\_name = "bigbank"}(works))$
- 1.2  $\Pi id, person\_name, city (employee \bowtie employee.id = works.id works (\sigma_{company\_name = "bigbank"}(employee \times works)))$
- 1.3  $\Pi id, person\_name, street, city (\sigma_{employee \bowtie employee.id = works.id works (company\_name = "bigbank" \wedge salary > 10000)})$
- 1.4  $\Pi id, person\_name (\sigma_{company.city = employee.city (employee \bowtie employee.id = works.id works \bowtie works.company\_name = company.company\_name company)})$
- 2.1  $\Pi id, person\_name (\sigma_{company\_name \neq "bigbank"}(works))$
- 2.2  $\Pi id, person\_name (\sigma_{salary > AVG(salary)}(works))$
- 3 Try to insert a row with non-existing department to the instructor relation, This will cause a violation of the foreign-key constraint. If we try to delete some row from department relation (considering that there exists instructor in this department) this will also cause a violation of the foreign-key constraint.