

Laboratory work 2

employee (id, person name, street, city)

works(id,person name, company name, salary)

company (id,company name, city)

Operation :

X – join, ^ -and

1.

a)

$\Pi_{(ID,name)}(\sigma_{ID,company\ name="BigBank"}(works))$

b)

$\Pi_{(ID, person\ name, street, city)}(\sigma_{company\ name="BigBank" \text{ and } salary > \$10000}(works))$

c)

$\Pi_{(ID, person\ name, city)}(employee \ X \ (\sigma_{company\ name="BigBank"}(works)))$

d) $\Pi_{(ID, person\ name)}(\sigma_{employee.street = company.street}(employee \ X \ company))$

2.

a) $\Pi_{ID, person\ name}(\sigma_{company_name \neq "BigBank"}(employee \ X \ works))$

3. Insert rule:

The insert rule of a referential constraint is that a non-null insert value of the foreign key must match some value of the parent key of the parent table.

For example, if we add economics as dept name in instructor table but department table don't contain it then it is a violation of foreign key constraint.

Delete rule:

The delete rule of NO ACTION is checked to enforce that any non-null foreign key refers to an existing parent row after the other referential constraints have been enforced. The delete rule of a referential constraint applies only when a row of the parent table is deleted.

4.

Primary key is an attribute in a table which can uniquely identify that table.

- 1) In employee table : id , person name;
- 2) In works table: id, person name
- 3) In company table: id, company name