

Assignment :- 2



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Assignment Name :- Write relational algebra queries on the table you are created in assignment No. 1

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1 Select operation :-

The select operation tuples that satisfy a given predicates, we use lower case greek letter σ (sigma) to denote selection. The predicate appears as subscript to sigma (σ).

eg :- $\sigma_{\text{Customer-city} = \text{"Khopoli"}}(\text{Customer})$

We can find all tuples in which the amount is more than 10,000

eg :- $\sigma_{\text{balance} > 10,000}(\text{Account})$.

2 project operation :-

Suppose we want to list all Customer-id, Customer-city, Customer-street then we can use projection operation.

projection is denoted by the upper case greek letter π (π) we list those attribute that we wish to appear in the result as a subscript to π

eg :- $\pi_{\text{Customer-id, Customer-city}}(\text{Customer})$



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3 Composition of relation operation :-

Find those customer name who leave in Khopoli.

eg:- π customer name (σ customer-city = "Khopoli" (customer))

4 Rename operation :-

Unlike relation in the database the result of relational algebra expression do not have name that we can used to refer to them. It is useful to be able to give them the rename operator denoted by lowercase green letter ρ h(P)

eg :- $P \times (E)$

Above example return the result of expression is under the name x.

5 Set intersection operation (\cap) :-

Suppose that we wish to find all customer who have both loan and account then we can fire Relational Algebra like

π customer-name (borrower) \cap customer-name (depositor).

Signature
21/8/18