

Q8 Projection Operator: (π) is a unary operator in relational algebra that performs a projection operation.

⇒ It displays the column of a relational or table based on specified attributes.

Notation: $\pi_{\text{name}}(\text{table name})$

Example Table Employee

EMP_ID	EMP_name	EMP_email	EMP_phone
101	Kashyap	k@gmail.com	9408712809
102	Raj	R@gmail.com	9406918100
103	John	j@gmail.com	9426817290

$\pi_{\text{EMP_ID}, \text{EMP_NAME}}(\text{Employee})$

output:

EMP_ID	EMP_NAME
101	Kashyap
102	Raj
103	John

Tuple Relational Calculus Domain Relational

1) In TRS, the variable represent the tables from specified relation

1) In DRS, the variables represent the value draw from specified column.

2) In this filtering variables uses type of relation.

2) In this filtering is done based on the domain of attributes.

3) A tuple is a single element in database term, it is a row

3) A domain is equivalent to column data type & any constraints on value of data.

4) Example :

$\{ T \mid \text{employee}(T) \text{ and } T.\text{Dept_ID} = 10 \}$

Example :

$\{ \langle \text{EMPLOYEE} \rangle \mid \text{DEPT_ID} = 10 \}$