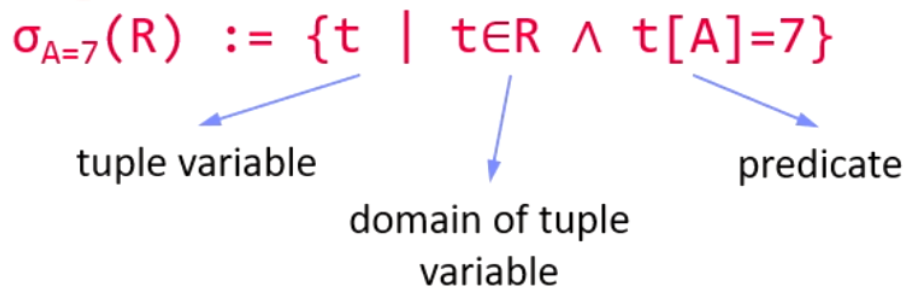- alternative to [[Relational Algebra]]

Relational Calculus Overview

- tuple relational calculus
    - tuple –> set
- domain relational calculus
    - attribute –> set

Characteristics Calculus Expression

$$\sigma_{A=7}(R) := \{t \mid t \in R \land t[A]=7\}$$

tuple variable   predicate

domain of tuple variable

-
    - left side relational algebra
    - right side tuple calculus
- Quantifiers
- does not specifiy operation order
- consists of variables, constants, comparisons, quantifier…
- formulas
    - free unbound variables ==> define result

$$\pi_{A,B}(R) :=$$
$$\{t \mid \exists r \in R(t[A]=r[A] \land t[B]=r[B])\}$$

free variable   **bound variable**   (relation T defined with two attributes A and B)

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