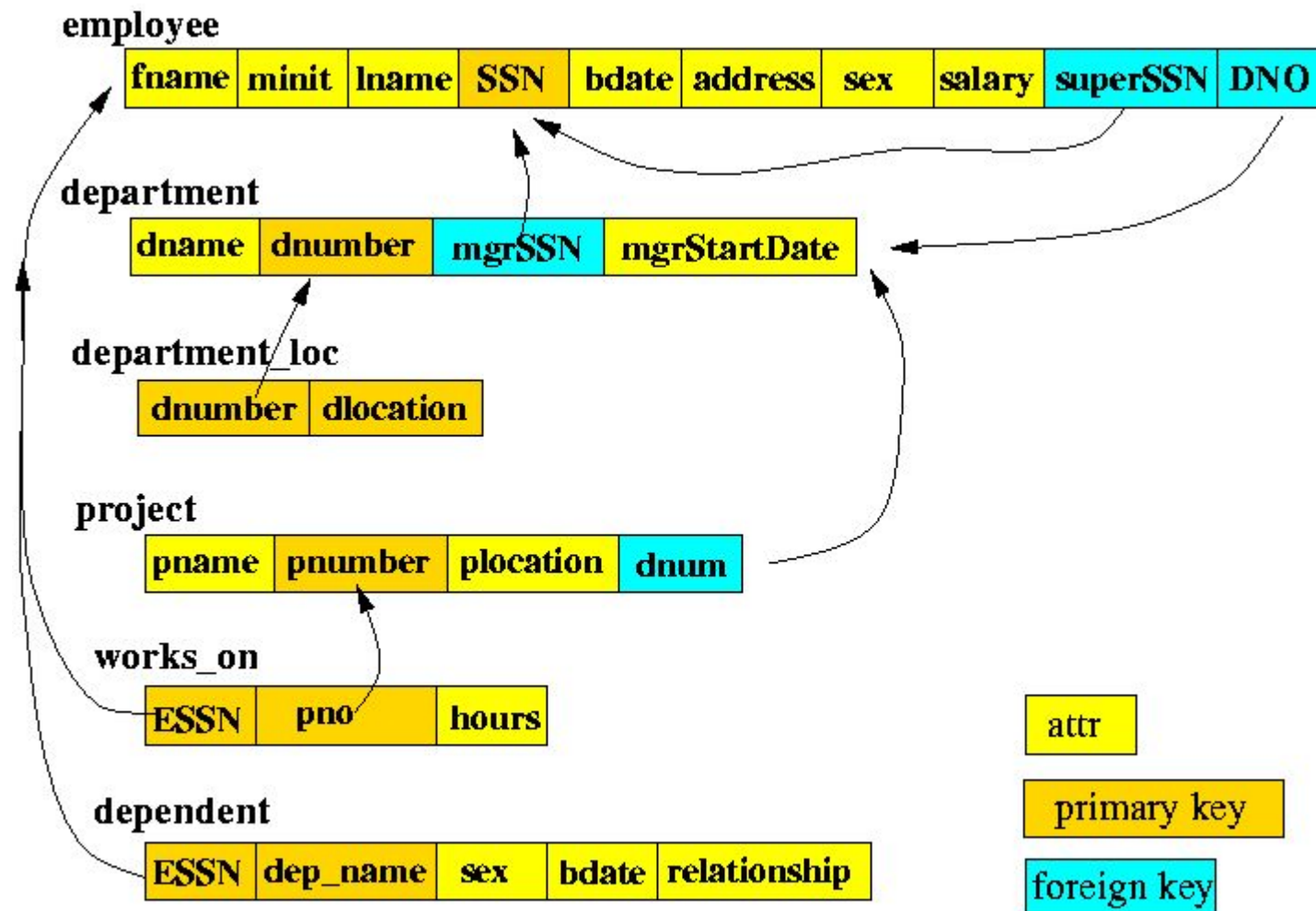# Queries

Selection

- Retrieve all employee tuples for employees that work for department number 4.
- Retrieve all employees earning more than $30,000:
- Retrieve all employees working for department number 4 and eaning more than $30,000:

Projection

- Retrieve only the SSN field from the employees.
- Retrieve the sex information from all employees.
- Retrieve the names of the female employees.
- Retrieve the names of the employees who earn more than $50,000.

Join   R1 ⋈$_{Cond}$ R2 = σ$_{Cond}$ (R1 × R2)

- Find the employees who have a higher salary than John Smith.

-

Other queries

- Find fname and lname of all employees working in the "Research" department that earn more than $50,000
- Find project name for all projects worked on by John Smith.
- Find fname and lname of John Smith's supervisor.
- Find fname and lname of all employees that have dependents

Other

- Find fname and lname of all employees that do not have any dependents
- Find fname and lname of all employees who work on all projects that "John Smith" works on
- Find fname and lname of all employees who work on all projects controlled by the department number 5.

Set and group functions

- Find the highest salary earned by employees in department number 5.
- Find the employee(s) who earn the highest salary in the company
- Find the average salary for each department.
- Find the average salary for male employees and female employees.
- Find the average salary of males and females for each department.
- Find the average salary and number of employees for males and females for each department

Some more examples

- Find fname and lname of all employees who work on more projects than 'John Smith'.
- Find fname and lname of employees who have 2 or more dependents.
- Find fname and lname of employees who have 2 or more dependents of the same sex.
- Find fname and lname of the employees who have the most number of dependents.
- Find fname and lname of the employee(s) in the Research department who earn the highest salary in the Research department.
- For each department, list the department name