TUT-05 2201CS35

1. Select all employees from the ’Engineering’ department:

σdepartment name=’Engineering’(employees ▷◁ departments)

1. Projection to display only the first names and salaries of all employees:

πfirst name, salary(employees)

1. Find employees who are managers:

σmanager id IS NOT NULL(employees)

1. Selection to retrieve employees earning a salary greater than

$60000:

σsalary*>*60000(employees)

1. Join employees with their respective departments:

employees ▷◁ departments

1. Cartesian product between employees and projects:

employees *×* projects

1. Find employees who are not managers:

σmanager id IS NULL(employees)

1. Natural join between departments and projects:

departments ▷◁ projects

1. Project the department names and locations from the departments table:

πdepartment name, location(departments)

1. Selection to retrieve projects with budgets greater than $100000:

σbudget*>*100000(projects)

1. Find employees who are managers in the ’Sales’ department:

σdepartment name=’Sales’ *∧* manager id IS NOT NULL(employees ▷◁ departments)

1. Union operation between employees from the ’Engineering’ and ’Finance’ departments:

πfirst name(employeesdepartment name=’Engineering’)*∪*

πfirst name(employeesdepartment name=’Finance’)

1. Find employees who are not assigned to any projects:

employees *−* (employees ▷◁ works on)

1. Join operation to display employees along with their project assignments:

employees ▷◁ works on

1. Find employees whose salaries are not within the range $50000 to $70000:

σsalary*<*50000*∨*salary*>*70000(employees)