

Employee

	employee_id	first_name	last_name	gender	position	department_id	salary
1	2002	Super	Man	M	Tester	1	75000
2	2003	Jessica	Liyers	F	Architect	1	60000
3	2004	Bonnie	Adams	F	Project Manager	1	80000
4	2005	James	Madison	M	Software Developer	1	55000
5	2006	Michael	Greenback	M	Sales Assistant	2	85000
6	2007	Leslie	Peters	F	Sales Engineer	2	76000
7	2008	Max	Powers	M	Sales Representative	2	59000
8	2009	Stacy	Jacobs	F	Sales Manager	2	730000
9	2010	John	Henery	M	Sales Director	2	90000

1.

Department

	department_id	department_name
1	1	IT
2	2	Sales

1. Return employee record with max salary

`select * from employee where salary = (select Max(salary))`

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1	2009	Stacy	Jacobs	F	Sales Manager	2	730000

2. Select highest salary in employee table

`select Max(salary) from employee`

	(No column name)
1	730000


3. Select 2nd highest salary in employee table

`select Max(salary) from employee where salary Not In (select Max(salary) from employee)`

	(No column name)
1	90000

4. Select range of employee based on id

`select * from employee where employee_id between 2003 and 2008`



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3	2005	James	Madison	M	Software Developer	1	55000
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5. Combine two table based on common department_id

`select * from employee inner join department on employee.department_id = department.department_id`

6. Foreign key vs primary key

Two tables are relational,

Primary key is the field that uniquely identifies every different record,

Foreign key is just the field used to link two tables together

两个 table 通过 foreign key 和 primary key 链接起来，其中有 foreign 的叫 child table，包含 primary key 的是 parent table.

在这个例子中， Employee (child table) 的 department_id 是 foreign key， Department (parent table) 的 department_id 是 primary key.

