

Базы данных

Лекция 9

Язык SQL.

Соединение таблиц

JOIN

- INNER
- OUTER
 - LEFT OUTER
 - RIGHT OUTER
 - FULL OUTER
- CROSS

INNER JOIN

```
SELECT table1.column, table2.column, ...  
FROM table1  
[INNER] JOIN table2 ON (<condition>);
```

```
SELECT e.employee_id, e.last_name,  
       e.department_id, d.department_id,  
       d.location_id  
FROM employees e JOIN departments d  
ON (e.department_id = d.department_id);
```

```
SELECT worker.last_name emp,  
       manager.last_name mgr  
FROM employees worker JOIN employees manager  
ON (worker.manager_id = manager.employee_id);
```

INNER JOIN

```
SELECT employee_id, city,  
       department_name  
FROM employees e  
JOIN departments d  
ON d.department_id = e.department_id  
JOIN locations l  
ON d.location_id = l.location_id;
```

INNER JOIN

```
SELECT e.employee_id, e.last_name,  
       e.department_id,  
       d.department_id, d.location_id  
FROM employees e JOIN departments d  
ON (e.department_id = d.department_id  
AND e.manager_id = 149);
```

```
SELECT e.employee_id, e.last_name,  
       e.department_id, d.department_id,  
       d.location_id  
FROM employees e JOIN departments d  
ON (e.department_id = d.department_id)  
WHERE e.manager_id = 149;
```

INNER JOIN

```
SELECT e.last_name, e.salary,  
       j.grade_level  
FROM employees e JOIN job_grades j  
ON e.salary BETWEEN j.lowest_sal AND  
   j.highest_sal;
```

OUTER JOIN

```
SELECT table1.column, table2.column, ...  
FROM table1  
LEFT|RIGHT|FULL OUTER JOIN table2  
  ON (table1.column_name =  
      table2.column_name);
```

OUTER JOIN

```
SELECT e.last_name, e.department_id,  
       d.department_name  
FROM employees e LEFT OUTER JOIN departments d  
ON (e.department_id = d.department_id);
```

```
SELECT e.last_name, e.department_id,  
       d.department_name  
FROM employees e RIGHT OUTER JOIN departments d  
ON (e.department_id = d.department_id);
```

```
SELECT e.last_name, e.department_id,  
       d.department_name  
FROM employees e FULL OUTER JOIN departments d  
ON (e.department_id = d.department_id);
```


CROSS JOIN

```
SELECT table1.column, table2.column, ...  
FROM table1  
CROSS JOIN table2;
```

```
SELECT last_name, department_name  
FROM employees  
CROSS JOIN departments;
```

```
SELECT last_name, department_name  
FROM employees, departments;
```