**Muhammad Kaleem** 

56614

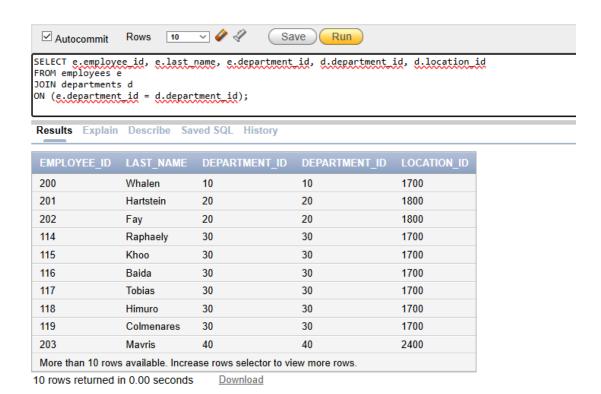
Lab#6

Q1.

Examples:

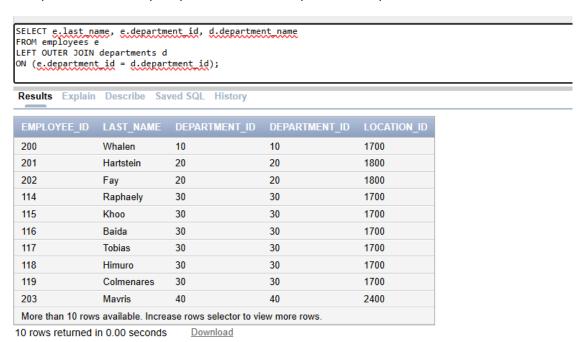
Inner Join:

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);



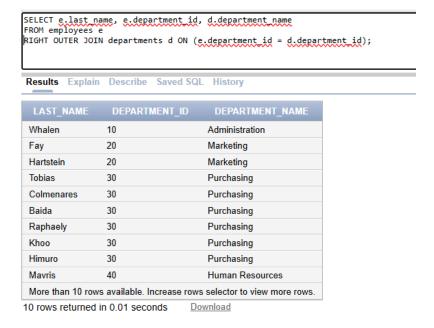
#### Left Outer Join:

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);



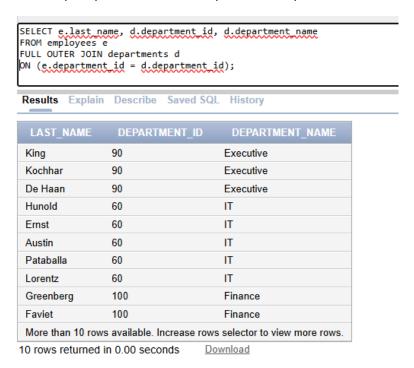
## Right Inner Join:

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);



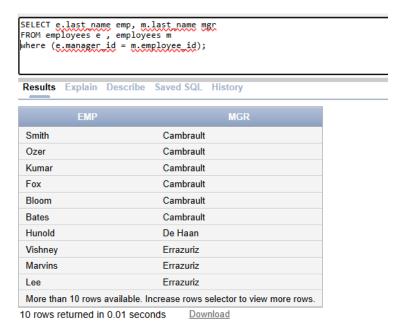
#### Full Join:

SELECT e.last\_name, d.department\_id, d.department\_name FROM employees e FULL OUTER JOIN departments d ON (e.department\_id = d.department\_id);



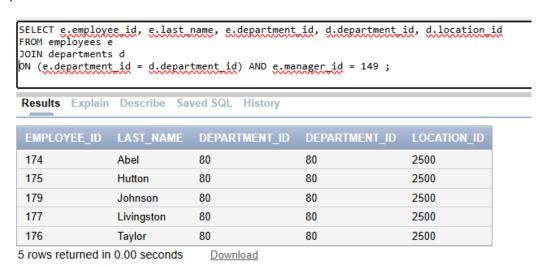
### Self Join:

SELECT e.last\_name emp, m.last\_name mgr FROM employees e , employees m where (e.manager\_id = m.employee\_id);



### Additional Conditions to a 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;



### Three-Way Joins with the ON Clause:

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



## Cross Join:

SELECT last\_name, department\_name FROM employees CROSS JOIN departments;

SELECT last name, department name
FROM employees
CROSS JOIN departments;

Results Explain Describe Saved SQL History

EMPLOYEE_ID	LAST_NAME	DEPARTMENT_ID	DEPARTMENT_ID	LOCATION_ID
174	Abel	80	80	2500
175	Hutton	80	80	2500
179	Johnson	80	80	2500
177	Livingston	80	80	2500
176	Taylor	80	80	2500

5 rows returned in 0.00 seconds <u>Download</u>

# Q2.

select job\_id, last\_name, department\_id

from employees

where job\_id in (select job\_id from jobs);

select job id, last name, department id from employees where job id in (select job id from jobs);

Results Explain Describe Saved SQL History

JOB_ID	LAST_NAME	DEPARTMENT_ID		
AD_PRES	King	90		
AD_VP	Kochhar	90		
AD_VP	De Haan	90		
IT_PROG	Hunold	60		
IT_PROG	Ernst	60		
IT_PROG	Austin	60		
IT_PROG	Pataballa	60		
IT_PROG	Lorentz	60		
FI_MGR	Greenberg	100		
FI_ACCOUNT	Faviet	100		
More than 10 rows available. Increase rows selector to view more rows.				

10 rows returned in 0.00 seconds

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# Q3.

select e.last\_name as employee,

e.employee\_id as emp#,

m.last\_name as manager,

e.manager\_id as mgr#

from employees e

left join employees m on e.manager\_id = m.employee\_id;

```
select e.last name as employee,
e.employee id as emp#,
m.last name as manager,
e.manager id as mgr#
from employees e
left join employees m on e.manager_id = m.employee_id;
```

Results Explain Describe Saved SQL History

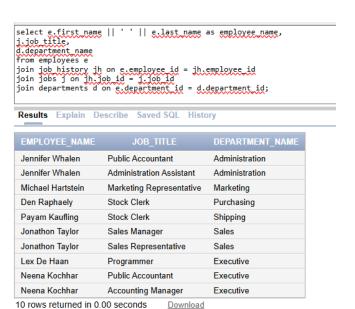
EMPLOYEE	EMP#	MANAGER	MGR#	
Kumar	173	Cambrault	148	
Bates	172	Cambrault	148	
Smith	171	Cambrault	148	
Fox	170	Cambrault	148	
Bloom	169	Cambrault	148	
Ozer	168	Cambrault	148	
Hunold	103	De Haan	102	
Banda	167	Errazuriz	147	
Ande	166	Errazuriz	147	
Lee	165	Errazuriz	147	
More than 10 rows available. Increase rows selector to view more rows.				

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# Q4:

```
select e.first_name || ' ' || e.last_name as employee_name,
j.job_title,
d.department_name
from employees e
join job_history jh on e.employee_id = jh.employee_id
join jobs j on jh.job_id = j.job_id
join departments d on e.department_id = d.department_id;
```



## Q5.

select e.first\_name || ' ' || e.last\_name as employee\_name,
j.job\_title,
d.department\_name
from employees e
join jobs j on e.job\_id = j.job\_id
join departments d on e.department\_id = d.department\_id;

```
select e first name || ' ' || e.last name as employee name,
j.job title,
d.department name
from employees e
join jobs j on e.job id = j.job id
join departments d on e.department id = d.department id;
```

Results Explain Describe Saved SQL History

EMPLOYEE_NAME	JOB_TITLE	DEPARTMENT_NAME
Jennifer Whalen	Administration Assistant	Administration
Pat Fay	Marketing Representative	Marketing
Michael Hartstein	Marketing Manager	Marketing
Den Raphaely	Purchasing Manager	Purchasing
Karen Colmenares	Purchasing Clerk	Purchasing
Guy Himuro	Purchasing Clerk	Purchasing
Sigal Tobias	Purchasing Clerk	Purchasing
Alexander Khoo	Purchasing Clerk	Purchasing
Shelli Baida	Purchasing Clerk	Purchasing
Susan Mavris	Human Resources Representative	Human Resources
More than 10 rows available. Increase rows selector to view more rows.		

<sup>10</sup> rows returned in 0.00 seconds Download