



Inspiring Excellence

Course Title: Database Management

Course Code: CSE 370

Lab Assignment no: 02

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Section: 06

After: Table Creation and Data Insertion





	employee_id	first_name	last_name	email	phone_number	hire_date	job_id	salary	commission_pct	manager_id	department_id
▶	EMP001	Monkey D.	Luffy	luffy@gmail.com	01712345678	2023-10-19	JOB001	80000	0.050	MNG001	DPT001
	EMP002	Roronoa	Zoro	zoro@yahoo.com	01723456789	2023-10-20	JOB002	70000	0.040	MNG001	DPT001
	EMP003	Nami	Cat Burglar	nami@protonmail.com	01734567890	2023-10-21	JOB003	30000	0.060	MNG002	DPT002
	EMP004	Usopp	Sniper King	usopp@gmail.com	01745678901	2023-10-22	JOB004	25000	0.035	MNG002	DPT002
	EMP005	Sanji	Vinsmoke	sanji@yahoo.com	01756789012	2023-10-23	JOB005	65000	0.055	MNG003	DPT003
	EMP006	Tony Tony	Chopper	tony@gmail.com	01767890123	2023-10-24	JOB006	20000	0.045	MNG002	DPT004
	EMP007	Nico	Robin	nico@protonmail.com	01778901234	2023-10-25	JOB007	68000	0.070	MNG003	DPT005
	EMP008	Franky	Cutty Flam	franky@gmail.com	01789012345	2023-10-26	JOB008	51000	0.050	MNG003	DPT006
	EMP009	Brook	Soul King	brook@yahoo.com	01790123456	2023-10-27	JOB009	49000	0.045	MNG003	DPT007
	EMP010	Jinbe	Knight of the Sea	jinbe@gmail.com	01701234567	2023-10-28	JOB010	54000	0.065	MNG004	DPT007

Task; 01. Find the first_name, last_name, email, phone_number, hire_date, and department id of all the employees with the latest hire_date.

Command:

```
select first_name, last_name, email, phone_number, hire_date, department_id
from employees
where hire_date = (select max(hire_date) from employees);
```

```
35 • select first_name, last_name, email, phone_number, hire_date, department_id
36 from employees
37 where hire_date = (select max(hire_date) from employees);
```

Result Grid		 Filter Rows: <input type="text"/>	Export: 	Wrap Cell Content: 		
	first_name	last_name	email	phone_number	hire_date	department_id
▶	Jinbe	Knight of the Sea	jinbe@gmail.com	01701234567	2023-10-28	DPT007

Task 02. Find the first_name, last_name, employee_id, phone_number, salary and department_id of all the employees with the lowest salary in each department.

Command:

```
select e1.first_name, e1.last_name, e1.employee_id, e1.phone_number, e1.salary,
e1.department_id
from employees e1
where (e1.department_id, e1.salary) in (
    select e2.department_id, min(e2.salary)
    from employees e2
    group by e2.department_id
);
```

```

39 • select e1.first_name, e1.last_name, e1.employee_id, e1.phone_number, e1.salary, e1.department_id
40 from employees e1
41 where (e1.department_id, e1.salary) in (
42     select e2.department_id, min(e2.salary)
43     from employees e2
44     group by e2.department_id
45 );

```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

	first_name	last_name	employee_id	phone_number	salary	department_id
▶	Roronoa	Zoro	EMP002	01723456789	70000	DPT001
	Usopp	Sniper King	EMP004	01745678901	25000	DPT002
	Sanji	Vinsmoke	EMP005	01756789012	65000	DPT003
	Tony Tony	Chopper	EMP006	01767890123	20000	DPT004
	Nico	Robin	EMP007	01778901234	68000	DPT005
	Franky	Cutty Flam	EMP008	01789012345	51000	DPT006
	Brook	Soul King	EMP009	01790123456	49000	DPT007

Task 03. Find the first_name, last_name, employee_id, commission_pct and department_id of all the employees in the department 'DPT007' who have a lower commission_pct than all of the employees of the department 'DPT005'.

Command:

```

select e1.first_name, e1.last_name, e1.employee_id, e1.commission_pct, e1.department_id
from employees e1
where e1.department_id = 'dpt007'
and e1.commission_pct < all (
    select e2.commission_pct
    from employees e2
    where e2.department_id = 'dpt005'
);

```

```

47 • select e1.first_name, e1.last_name, e1.employee_id, e1.commission_pct, e1.department_id
48 from employees e1
49 where e1.department_id = 'dpt007'
50 and e1.commission_pct < all (
51     select e2.commission_pct
52     from employees e2
53     where e2.department_id = 'dpt005'
54 );

```

Result Grid Filter Rows: <input type="text"/> Export: Wrap Cell Content:					
	first_name	last_name	employee_id	commission_pct	department_id
▶	Brook	Soul King	EMP009	0.045	DPT007
	Jinbe	Knight of the Sea	EMP010	0.065	DPT007

Task -4. Find the department_id and total number of employees of each department which does not have a single employee under it with a salary more than 30,000.

Command:

```

select department_id, count(*) as total_employees
from employees
group by department_id
having max(salary) <= 30000;

```

```

56 • select department_id, count(*) as total_employees
57 from employees
58 group by department_id
59 having max(salary) <= 30000;
60

```

Result Grid Filter Rows: <input type="text"/> Export: Wrap Cell Content:		
	department_id	total_employees
▶	DPT002	2
	DPT004	1

Task 05. For each of the departments, find the department_id, job_id and commission_pct with commission_pct less than at least one other job_id in that department.

Command:

```

select e1.department_id, e1.job_id, e1.commission_pct
from employees e1
where e1.commission_pct < any (
    select e2.commission_pct
    from employees e2

```

where e2.department_id = e1.department_id
and e2.job_id <> e1.job_id

);

```
61 • select e1.department_id, e1.job_id, e1.commission_pct
62   from employees e1
63  where e1.commission_pct < any (
64       select e2.commission_pct
65       from employees e2
66       where e2.department_id = e1.department_id
67       and e2.job_id <> e1.job_id
68  );
```

Result Grid	Filter Rows:	Export:	Wrap Cell Content:
department_id	job_id	commission_pct	
DPT001	JOB002	0.040	
DPT002	JOB004	0.035	
DPT007	JOB009	0.045	

Task 06. Find the manager_id who does not have any employee under them with a salary less than 3500.

Command;

```
select manager_id
from employees
group by manager_id
having min(salary) >= 3500;
```

```
69 • select manager_id
70   from employees
71  group by manager_id
72  having min(salary) >= 3500;
```

Result Grid	Filter Rows:	Export:	Wrap Cell Content:
manager_id			
MNG001			
MNG002			
MNG003			
MNG004			

Task 07. Find the first_name, last_name, employee_id, email, salary, department_id and commission_pct of the employee who has the lowest commission_pct under each manager.

Command:

```

select e1.first_name, e1.last_name, e1.employee_id, e1.email, e1.salary, e1.department_id,
e1.commission_pct
from employees e1
where (e1.manager_id is not null) and (
    e1.commission_pct = (select min(commission_pct) from employees e2 where e2.manager_id
= e1.manager_id)
);

```

```

--
70 • select e1.first_name, e1.last_name, e1.employee_id, e1.email, e1.salary, e1.department_id, e1.commission_pct
71 from employees e1
72 where (e1.manager_id is not null) and (
73     e1.commission_pct = (select min(commission_pct) from employees e2 where e2.manager_id = e1.manager_id)
74 );
75
76
77

```

Result Grid							
	first_name	last_name	employee_id	email	salary	department_id	commission_pct
▶	Roronoa	Zoro	EMP002	zoro@yahoo.com	70000	DPT001	0.040
	Usopp	Sniper King	EMP004	usopp@gmail.com	25000	DPT002	0.035
	Brook	Soul King	EMP009	brook@yahoo.com	49000	DPT007	0.045
	Jinbe	Knight of the Sea	EMP010	jinbe@gmail.com	54000	DPT007	0.065