GAZİ ÜNİVERSİTESİ BİLGİSAYAR MÜHENDİSLİĞİ
CENG364 DATABASE APPLICATIONS
Gamze Aksu – 171180005 –Assignment3

Soru 1:

```
1  select count(distinct MANAGER_ID) as "Number of Managers"
2  from employees
```

Number of Managers
18

Download CSV

Soru 2:

```
7  select MANAGER_ID as "Manager Number" ,
8  max(salary) as "Max Salary"
9  from employees
10 where manager_id is not null
11 group by manager_id
12 having max(salary) > 7000
13 order by max(salary) desc
```

Manager Number	Max Salary
100	17000
101	12008
148	11500
149	11000
147	10500
146	10000
145	10000
108	9000
102	9000
205	8300

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Soru 3:

```
22  select e.last_name, e.job_id, e.department_id, d.department_name
23  from employees e JOIN departments d
24  on (e.department_id = d.department_id)
25  JOIN locations l
26  on (d.location_id = l.location_id)
27  where l.city = 'Toronto'
28
```

LAST_NAME	JOB_ID	DEPARTMENT_ID	DEPARTMENT_NAME
Hartstein	MK_MAN	20	Marketing
Fay	MK_REP	20	Marketing

Soru 4:

```
1  select e.last_name as "Employee",
2  e.employee_id as "Emp ID",
3  m.last_name as "Manager",
4  m.employee_id as " Mgr ID"
5  from employees e JOIN employees m
6  on (e.manager_id = m.employee_id)
```

Employee	Emp ID	Manager	Mgr ID
Kochhar	101	King	100
De Haan	102	King	100
Raphaely	114	King	100
Weiss	120	King	100
Fripp	121	King	100
Kaufling	122	King	100
Vollman	123	King	100
Mourgos	124	King	100
Russell	145	King	100
Partners	146	King	100
Errazuriz	147	King	100
Cambrault	148	King	100
Zlotkey	149	King	100
Hartstein	201	King	100
Greenberg	108	Kochhar	101

Soru 5:

```
56  describe job_grades
57
```

```
Unsupported Command
```

-This command is not supported for the Oracle Live

```
58  select e.last_name, e.job_id, d.department_name, e.salary, g.grade_level
59  from employees e JOIN departments d
60  on (e.department_id = d.department_id)
61  JOIN job_grades g
62  on e.salary between g.lowest_sal and g.highest_sal
```

LAST_NAME	JOB_ID	DEPARTMENT_NAME	SALARY	GRADE_LEVEL
Whalen	AD_ASST	Administration	4400	B
Fay	MK_REP	Marketing	6000	C
Hartstein	MK_MAN	Marketing	13000	D
Colmenares	PU_CLERK	Purchasing	2500	A
Himuro	PU_CLERK	Purchasing	2600	A
Tobias	PU_CLERK	Purchasing	2800	A
Baida	PU_CLERK	Purchasing	2900	A
Khoo	PU_CLERK	Purchasing	3100	B
Raphaely	PU_MAN	Purchasing	11000	D
Mavris	HR_REP	Human Resources	6500	C
Olson	ST_CLERK	Shipping	2100	A
Markle	ST_CLERK	Shipping	2200	A

Soru 6:

```
66  select e.last_name, e.hire_date, m.last_name,m.hire_date
67  from employees e JOIN employees m
68  on (e.manager_id = m.employee_id)
69  where e.hire_date > m.hire_date
70
```

LAST_NAME	HIRE_DATE	LAST_NAME	HIRE_DATE
Kochhar	21-SEP-05	King	17-JUN-03
Weiss	18-JUL-04	King	17-JUN-03
Fripp	10-APR-05	King	17-JUN-03
Vollman	10-OCT-05	King	17-JUN-03
Mourgos	16-NOV-07	King	17-JUN-03
Russell	01-OCT-04	King	17-JUN-03
Partners	05-JAN-05	King	17-JUN-03
Errazuriz	10-MAR-05	King	17-JUN-03
Cambrault	15-OCT-07	King	17-JUN-03
Zlotkey	29-JAN-08	King	17-JUN-03
Hartstein	17-FEB-04	King	17-JUN-03
Hunold	03-JAN-06	De Haan	13-JAN-01
Ernst	21-MAY-07	Hunold	03-JAN-06

Soru 7:

```
1  SELECT last_name AS "NAME",
2  salary+100 AS NewSal,
3  NewSal*12 AS "New AnnSal"
4  FROM employees;
```

```
ORA-00904: "NEWSAL": invalid identifier
```

Aliases cannot be used as column names in a select statement. Using an alias as a column name in a select statement causes an error. NewSal in second line is an alias. It is used as the name of the column in third line. Therefore, (salary + 100) should be written instead of NewSal in third line.

```
1  SELECT last_name AS "NAME",
2  salary+100 AS NewSal,
3  (salary+100)*12 AS "New AnnSal"
4  FROM employees;
```

NAME	NEWSAL	New AnnSal
OConnell	2700	32400
Grant	2700	32400
Whalen	4500	54000
Hartstein	13100	157200
Fay	6100	73200
Mavris	6600	79200
Baer	10100	121200
Higgins	12108	145296
Gietz	8400	100800
King	24100	289200
Kochhar	17100	205200
De Haan	17100	205200
Hunold	9100	109200
Ernst	6100	73200
Austin	4900	58800
Pataballa	4900	58800

Soru 8:

```
71  select last_name,
72  instr(lower(last_name), 'e')-1 as "Number of Characters"
73  from employees
74  where lower(last_name) like '%e%'
```

LAST_NAME	Number of Characters
De Haan	1
Ernst	0
Lorentz	3
Greenberg	2
Faviet	4
Chen	2
Raphaely	5
Colmenares	4
Weiss	1
Nayer	3
Mikkilineni	8
Markle	5
Rogers	3
Gee	1
Philtanker	8

Soru 9:

```
79  select job_id,
80  count(employee_id) as "Count"
81  from employees
82  group by job_id
```

JOB_ID	Count
AD_VP	2
FI_ACCOUNT	5
PU_CLERK	5
SH_CLERK	20
HR_REP	1
PU_MAN	1
AC_MGR	1
ST_CLERK	20
AD_ASST	1
IT_PROG	5
SA_MAN	5
AC_ACCOUNT	1
FI_MGR	1
ST_MAN	5
AD_PRES	1
MK_MAN	1