

ÖDEV

HR.EMPLOYEES tablosu dataları kullanarak

1-Departmandaki tüm çalışan personelleri yanyana yazabilir misiniz?

```
SELECT department_id, LISTAGG(first_name || ' ' || last_name || ';' )
      WITHIN GROUP(ORDER BY department_id) AS sonuc
FROM HR.employees
GROUP BY department_id;
```

DEPARTMENT_ID	SONUC
10	Jennifer Whalen;
20	Michael Hartstein;Pat Fay;
30	Alexander Khoo;Den Raphaely;Guy Himuro;Karen Colmenares;Shelli Baida;Sigal Tobias;
40	Susan Mavris;
50	Adam Fripp;Alana Walsh;Alexis Bull;Anthony Cabrio;Britney Everett;Curtis Davies;Donald OConnell;Douglas Grant;Girard Geoni;Hazel Philtanker;Irene Mikkilineni;James Landry;James Marlow;Jason Mallin;Jean Fleaur;Jennifer Dilly;John Seo;Joshua Patel;Julia Dellinger;Julia Nayer;Kelly Chung;Kevin Feeney;Kevin Mourgos;Ki Gee;Laura Bissot;Martha Sullivan;Matthew Weiss;Michael Rogers;Mozhe Atkinson;Nandita Sarchand;Payam Kaufling;Peter Vargas;Randall Matos;Randall Perkins;Renske Ladwig;Samuel McCain;Sarah Bell;Shanta Vollman;Stephen Stiles;Steven Markle;TJ Olson;Timothy Gates;Trenna Rajs;Vance Jones;Winston Taylor;
60	Alexander Hunold;Bruce Ernst;David Austin;Diana Lorentz;Valli Pataballa;
70	Hermann Baer;
80	Alberto Errazuriz;Allan McEwen;Alyssa Hutton;Amit Banda;Charles Johnson;Christopher Olsen;Clara Vishney;Danielle Greene;David Bernstein;David Lee;Eleni Zlotkey;Elizabeth Bates;Ellen Abel;Gerald Cambrault;Harrison Bloom;Jack Livingston;Janette King;John Russell;Jonathon Taylor;Karen Partners;Lindsey Smith;Lisa Ozer;Louise Doran;Mattea Marvins;Nanette Cambrault;Oliver Tuvault;Patrick Sully;Peter Hall;Peter Tucker;Sarath Sewall;Sundar Ane;Sundita Kumar;Tayler Fox;William Smith;
90	Lex De Haan;Neena Kochhar;Steven King;
100	Daniel Faviyet;Ismael Sciarra;John Chen;Jose Manuel Urman;Luis Popp;Nancy Greenberg;
110	Shelley Higgins;William Gietz;

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	Kimberely Grant

2- JOBID YE GORE GRUPLANACAK  
EMPID YE SIRALANACAK GORE HERKESIN KENDINDEN 1 ONCEKI VE 1 SONRAKI  
SALARY TOPLAMI BULUNACAK

```
SELECT hr.employees.*, SUM(salary) OVER (PARTITION BY job_id ORDER BY
emplovee id ROWS BETWEEN 1 PRECEDING AND 1 FOLLOWING) NUM FROM hr.employees
```

100	Steven	King	SKING	515.123.4567	17-JUN-03	AD_PRES	24000	-	-	90	24000
101	Neena	Kochhar	NKOCHHAR	515.123.4568	21-SEP-05	AD_VP	17000	-	100	90	34000
102	Lex	De Haan	LDEHAAN	515.123.4569	13-JAN-01	AD_VP	17000	-	100	90	34000
109	Daniel	Faviyet	DFAVIET	515.124.4169	16-AUG-02	FI_ACCOUNT	9000	-	108	100	17200

3-TELEFON NO HERKESIN KENDINDEN BİR SONRAKİ KİSİNİN TELEFON NUMARASINI  
YANINA YAZIN  
HIRE\_DATE E GÖRE SIRALI  
DEPARTMENT\_ID göre gruplanmalı

```
SELECT hr.employees.*, LEAD(phone_number,1)
OVER (PARTITION BY department_id ORDER BY hire_date)
NEXT_VALUE FROM hr.employees
```

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID	NEXT_VALUE
200	Jennifer	Whalen	JWHALEN	515.123.4444	17-SEP-03	AD_ASST	4400	–	101	10	–
201	Michael	Hartstein	MHARTSTE	515.123.5555	17-FEB-04	MK_MAN	13000	–	100	20	603.123.6666
202	Pat	Fay	PFAY	603.123.6666	17-AUG-05	MK_REP	6000	–	201	20	–
114	Den	Raphaely	DRAPHEAL	515.127.4561	07-DEC-02	PU_MAN	11000	–	100	30	515.127.4562
115	Alexander	Khoo	AKH00	515.127.4562	18-MAY-03	PU_CLERK	3100	–	114	30	515.127.4564
117	Sigal	Tobias	STOBIAS	515.127.4564	24-JUL-05	PU_CLERK	2800	–	114	30	515.127.4563

4-MAASLARA GÖRE 1 DEN BASLAYARAK SIRALA EMPLOYEES TABLOSU İÇİNDE  
MAAS AYNI İSE KIDEME(İŞE GİRİŞ TARİHİ) GÖRE SIRALA

```
SELECT
    hr.employees.*,
    RANK() OVER (ORDER BY salary DESC, hire_date ASC) salary_rank
FROM
    hr.employees
ORDER BY
    salary_rank;
```

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID	SALARY_RANK
100	Steven	King	SKING	515.123.4567	17-JUN-03	AD_PRES	24000	–	–	90	1
102	Lex	De Haan	LDEHAAN	515.123.4569	13-JAN-01	AD_VP	17000	–	100	90	2
101	Neena	Kochhar	NKOCHHAR	515.123.4568	21-SEP-05	AD_VP	17000	–	100	90	3
145	John	Russell	JRUSSEL	011.44.1344.429268	01-OCT-04	SA_MAN	14000	.4	100	80	4
146	Karen	Partners	KPARTNER	011.44.1344.467268	05-JAN-05	SA_MAN	13500	.3	100	80	5
201	Michael	Hartstein	MHARTSTE	515.123.5555	17-FEB-04	MK_MAN	13000	–	100	20	6

5-TÜM TABLOYU EMPLOYEES İLK 10 İÇİN 1 DİĞER 10 İÇİN 2... YAZACAK. Sıralamayı EMPLOYEE\_ID üzerinden yapabilir misiniz?

NTile fonksiyonunu kullanırken Order\_Clause da olmalı.

```
SELECT hr.employees.*, NTILE(11) OVER (ORDER BY employee_id) as custom_val
FROM hr.employees
```

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID	CUSTOM_VAL
100	Steven	King	SKING	515.123.4567	17-JUN-03	AD_PRES	24000	-	-	90	1
101	Neena	Kochhar	NKOCHHAR	515.123.4568	21-SEP-05	AD_VP	17000	-	100	90	1
102	Lex	De Haan	LDEHAAN	515.123.4569	13-JAN-01	AD_VP	17000	-	100	90	1
103	Alexander	Hunold	AHUNOLD	590.423.4567	03-JAN-06	IT_PROG	9000	-	102	60	1
104	Bruce	Ernst	BERNST	590.423.4568	21-MAY-07	IT_PROG	6000	-	103	60	1

6-HER DEPARTMAN İÇİN ORTALAMA MAAŞIN ALTINDAKİLER 0 ÜSTÜNDEKİLER 1 OLARAK GÖSTERİLSİN.

```
SELECT employee_id, salary, department_id,
       CASE
         WHEN salary < avg_salary_over_dept THEN 0
         ELSE 1
       END AS salary_label,
       avg_salary_over_dept AS avg_salary_department
FROM (SELECT employee_id, salary, department_id,
       AVG(salary) OVER (PARTITION BY department_id) AS avg_salary_over_dept
FROM hr.employees
) t
ORDER BY
department_id, employee_id;
```

EMPLOYEE_ID	SALARY	DEPARTMENT_ID	SALARY_LABEL	AVG_SALARY_DEPARTMENT
200	4400	10	1	4400
201	13000	20	1	9500
202	6000	20	0	9500
114	11000	30	1	4150
115	3100	30	0	4150

7- employees tablosu yıl içinde işe başlayan ilk personelleri listeleyebilir misiniz?

```
SELECT e.*
FROM hr.employees e
JOIN (
  SELECT employee_id, hire_date
  FROM ( SELECT employee_id, hire_date,
        ROW_NUMBER() OVER (PARTITION BY EXTRACT(YEAR FROM hire_date) ORDER BY hire_date) AS rn
  FROM hr.employees
  ) ranked_employees
  WHERE rn = 1
) first_employee_per_year
ON e.employee_id = first_employee_per_year.employee_id
AND e.hire_date = first_employee_per_year.hire_date;
```

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID
102	Lex	De Haan	LDEHAAN	515.123.4569	13-JAN-01	AD_VP	17000	-	100	90
103	Alexander	Hunold	AHUNOLD	590.423.4567	03-JAN-06	IT_PROG	9000	-	102	60
122	Payam	Kaufling	PKAUFLIN	650.123.3234	01-MAY-03	ST_MAN	7900	-	100	50
127	James	Landry	JLANDRY	650.124.1334	14-JAN-07	ST_CLERK	2400	-	120	50
146	Karen	Partners	KPARTNER	011.44.1344.467268	05-JAN-05	SA_MAN	13500	.3	100	80

8- Her departmanda en yüksek ücret alan personel dışındaki tüm kayıtlar gelsin.

```
SELECT *
FROM hr.employees
WHERE employee_id NOT IN (
    SELECT employee_id
    FROM (
        SELECT
            employee_id,
            DENSE_RANK() OVER (PARTITION BY department_id ORDER BY salary DESC) AS salary_rank
        FROM hr.employees
    ) ranked_employees
    WHERE salary_rank = 1);
```

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID
101	Neena	Kochhar	NKOCHHAR	515.123.4568	21-SEP-05	AD_VP	17000	-	100	90
102	Lex	De Haan	LDEHAAN	515.123.4569	13-JAN-01	AD_VP	17000	-	100	90
104	Bruce	Ernst	BERNST	590.423.4568	21-MAY-07	IT_PROG	6000	-	103	60
105	David	Austin	DAUSTIN	590.423.4569	25-JUN-05	IT_PROG	4800	-	103	60
106	Valli	Pataballa	VPATABAL	590.423.4560	05-FEB-06	IT_PROG	4800	-	103	60

9- Her departmanda en yüksek ücret alan 2 personelin kayıtları gelsin.

```
SELECT *
FROM hr.employees
WHERE employee_id NOT IN (
    SELECT employee_id
    FROM (
        SELECT
            employee_id,
            DENSE_RANK() OVER (PARTITION BY department_id ORDER BY salary DESC) AS salary_rank
        FROM hr.employees
    ) ranked_employees
    WHERE salary_rank > 2);
```

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID
100	Steven	King	SKING	515.123.4567	17-JUN-03	AD_PRES	24000	-	-	90
101	Neena	Kochhar	NKOCHHAR	515.123.4568	21-SEP-05	AD_VP	17000	-	100	90
102	Lex	De Haan	LDEHAAN	515.123.4569	13-JAN-01	AD_VP	17000	-	100	90
103	Alexander	Hunold	AHUNOLD	590.423.4567	03-JAN-06	IT_PROG	9000	-	102	60
104	Bruce	Ernst	BERNST	590.423.4568	21-MAY-07	IT_PROG	6000	-	103	60
108	Nancy	Greenberg	NGREENBE	515.124.4569	17-AUG-02	FI_MGR	12008	-	101	100

10- Her departmanda en kıdemli personelden başlayarak ondan önce ve sonra bölüme başlayan pesronelin ad soyad bilgisini gösterebilir misiniz

```
SELECT department_id, first_name, last_name, hire_date
FROM
(
  SELECT
    department_id,
    first_name,
    last_name,
    hire_date,
    RANK() OVER (PARTITION BY department_id ORDER BY hire_date) AS rank
  FROM hr.employees) ranked_employees
ORDER BY department_id,
CASE
  WHEN rank = 1 THEN 0
  ELSE 1
END,
hire_date;
```

DEPARTMENT_ID	FIRST_NAME	LAST_NAME	HIRE_DATE
10	Jennifer	Whalen	17-SEP-03
20	Michael	Hartstein	17-FEB-04
20	Pat	Fay	17-AUG-05
30	Den	Raphaely	07-DEC-02
30	Alexander	Khoo	18-MAY-03
30	Sigal	Tobias	24-JUL-05