

hr

Worksheet

Query Builder

--22P-9346

-- Write a query to display the total salary of each department, grouped by department name.

Select * From Employees;


Select * from DEPARTMENTS;












Select department_id , sum(salary) AS Total_Salary from EMPLOYEES group by department_id ;

Query Result

All Rows Fetched: 12 in 0.005 seconds

	DEPARTMENT_ID	TOTAL_SALARY
1	100	51608
2	30	24900
3	(null)	7000
4	90	58000
5	20	19000
6	70	10000
7	110	20308
8	50	156400
9	80	304500
10	40	6500
11	60	28800
12	10	4400

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Worksheet Query Builder






```
--22P-9346

--Display the number of employees in each department where the count is more than 5.

Select * From Employees;

SELECT department_id, count(*) As No_of_Employees FROM EMPLOYEES
GROUP by department_id having count(*) > 5;
```

 Query Result 

 | All Rows Fetched: 4 in 0.004 seconds

	DEPARTMENT_ID	NO_OF_EMPLOYEES
1	100	6
2	30	6
3	50	45
4	80	34

The screenshot shows the SQL Developer interface. The top pane is the 'Query Builder' tab, displaying a SQL query. The bottom pane is the 'Query Result' tab, showing the results of the query in a table format.

Query:

```
--22P-9346

--Find the average salary of employees for each job role, but only show job roles where
--the average salary is greater than 5000.

Select * From Employees;











SELECT job_id, Avg(salary) As Average_Salary FROM EMPLOYEES
group by Job_id having Avg(salary) > 5000;
```

Query Result:


JOB_ID	AVERAGE_SALARY
1 IT_PROG	5760
2 AC_MGR	12008
3 AC_ACCOUNT	8300
4 ST_MAN	7280
5 PU_MAN	11000
6 AD_VP	17000
7 FI_ACCOUNT	7920
8 FI_MGR	12008
9 SA_MAN	12200
10 MK_MAN	13000
11 PR_REP	10000
12 AD_PRES	24000
13 SA_REP	8350
14 MK_REP	6000
15 HR_REP	6500

SQL

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WorksheetQuery Builder




--22P-9346

--List the departments where the total salary expenditure exceeds \$100,000.

Select * From Employees;

SELECT Department_id ,SUM(salary) as total_salary FROM EMPLOYEES
group by department_id having SUM(salary) > 100000;

Query Result

 | All Rows Fetched: 2 in 0.004 seconds

	DEPARTMENT_ID	TOTAL_SALARY
1	50	156400
2	80	304500



Worksheet Query Builder

--22P-9346

--Write a query to find the details of the employee with the highest salary in the company.

Select * From Employees;










select * from EMPLOYEES WHERE salary = (select MAX(salary) from EMPLOYEES);

Script Output x Query Result x

SQL | All Rows Fetched: 1 in 0.004 seconds

	EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID
1	100	Steven	King	SKING	515.123.4567	17-JUN-03	AD_PRES	24000	(null)	(null)	90

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WorksheetQuery Builder





--22P-9346

--Display the first name, last name, and job ID of employees whose job ID is the same as
--that of the employee with ID 200.

Select * From Employees;

SELECT first_name, last_name, job_id FROM EMPLOYEES
WHERE job_id = (SELECT job_id FROM EMPLOYEES WHERE EMPLOYEE_ID = 200);

Script Output xQuery Result x

 SQL | All Rows Fetched: 1 in 0.002 seconds

	FIRST_NAME	LAST_NAME	JOB_ID
1	Jennifer	Whalen	AD_ASST



Worksheet Query Builder

--22P-9346

--Write a query to find all employees who work in the same department as the employee
--with the highest salary.

Select * From Employees;

select * FROM EMPLOYEES where department_id =
(select department_id from EMPLOYEES where salary = (select max(salary) FROM EMPLOYEES));

Script Output x Query Result x

SQL | All Rows Fetched: 3 in 0.001 seconds

	EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID
1	100	Steven	King	SKING	515.123.4567	17-JUN-03	AD_PRES	24000	(null)	(null)	90
2	101	Neena	Kochhar	NKOCHHAR	515.123.4568	21-SEP-05	AD_VP	17000	(null)	100	90
3	102	Lex	De Haan	LDEHAAN	515.123.4569	13-JAN-01	AD_VP	17000	(null)	100	90

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Worksheet Query Builder

```
--22P-9346

--List all employees whose salary is more than any employee in department 50.

Select * From Employees;

select * from EMPLOYEES where salary > all (select salary
from EMPLOYEES where department_id = 50);
```

Script Output x Query Result x

SQL | All Rows Fetched: 31 in 0.003 seconds

	EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID
1	206	William	Gietz	WGIEZT	515.123.8181	07-JUN-02	AC_ACCOUNT	8300	(null)	205	110
2	177	Jack	Livingston	JLIVINGS	011.44.1644.429264	23-APR-06	SA_REP	8400	0.2	149	80
3	176	Jonathon	Taylor	JTAYLOR	011.44.1644.429265	24-MAR-06	SA_REP	8600	0.2	149	80
4	175	Alyssa	Hutton	AHUTTON	011.44.1644.429266	19-MAR-05	SA_REP	8800	0.25	149	80
5	103	Alexander	Hunold	AHUNOLD	590.423.4567	03-JAN-06	IT_PROG	9000	(null)	102	60
6	109	Daniel	Faviet	DFAVIET	515.124.4169	16-AUG-02	FI_ACCOUNT	9000	(null)	108	100
7	152	Peter	Hall	PHALL	011.44.1344.478968	20-AUG-05	SA_REP	9000	0.25	145	80
8	158	Allan	McEwen	AMCEWEN	011.44.1345.829268	01-AUG-04	SA_REP	9000	0.35	146	80
9	157	Patrick	Sully	PSULLY	011.44.1345.929268	04-MAR-04	SA_REP	9500	0.35	146	80



Worksheet Query Builder

```
--22P-9346

--Find all employees whose salary is less than the salary of all employees in department 90.

Select * From Employees;









select * from EMPLOYEES where salary < all (select salary from EMPLOYEES where department_id = 90);
```

Script Output x Query Result x

SQL | All Rows Fetched: 104 in 0.01 seconds

	EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID
1	145	John	Russell	JRUSSEL	011.44.1344.429268	01-OCT-04	SA_MAN	14000	0.4	100	80
2	146	Karen	Partners	KPARTNER	011.44.1344.467268	05-JAN-05	SA_MAN	13500	0.3	100	80
3	201	Michael	Hartstein	MHARTSTE	515.123.5555	17-FEB-04	MK_MAN	13000	(null)	100	20
4	108	Nancy	Greenberg	NGREENBE	515.124.4569	17-AUG-02	FI_MGR	12008	(null)	101	100
5	205	Shelley	Higgins	SHIGGINS	515.123.8080	07-JUN-02	AC_MGR	12008	(null)	101	110
6	147	Alberto	Errazuriz	AERRAZUR	011.44.1344.429278	10-MAR-05	SA_MAN	12000	0.3	100	80
7	168	Lisa	Ozer	LOZER	011.44.1343.929268	11-MAR-05	SA_REP	11500	0.25	148	80
8	114	Den	Raphaely	DRAPHEAL	515.127.4561	07-DEC-02	PU_MAN	11000	(null)	100	30
9	148	Gerald	Cambrault	GCAMBRAU	011.44.1344.619268	15-OCT-07	SA_MAN	11000	0.3	100	80
10	174	Ellen	Abel	EABEL	011.44.1644.429267	11-MAY-04	SA_REP	11000	0.3	149	80

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WorksheetQuery Builder

--22P-9346

--Display the details of employees whose job ID is among the job IDs in the Sales department.

Select * From Employees;









.

select employee_id, first_name, last_name, job_id, department_id from EMPLOYEES where job_id in

(select job_id from EMPLOYEES where department_id =

(select department_id from departments where department_name = 'Sales'));

Script Output xQuery Result x



SQL | All Rows Fetched: 35 in 0.009 seconds

	EMPLOYEE_ID	FIRST_NAME	LAST_NAME	JOB_ID	DEPARTMENT_ID
1	149	Eleni	Zlotkey	SA_MAN	80
2	148	Gerald	Cambrault	SA_MAN	80
3	147	Alberto	Errazuriz	SA_MAN	80
4	146	Karen	Partners	SA_MAN	80
5	145	John	Russell	SA_MAN	80
6	179	Charles	Johnson	SA_REP	80
7	178	Kimberely	Grant	SA_REP	(null)
8	177	Jack	Livingston	SA_REP	80
9	176	Jonathon	Taylor	SA_REP	80
10	175	Alyssa	Hutton	SA_REP	80

hr

Worksheet

Query Builder

```
--22P-9346

--Write a query to list all employees whose salary is greater than the average salary in
--their own department.

Select * From Employees;

select * from employees where salary >
(select avg(salary) from employees where department_id = department_id);
```

Script Output x

Query Result x

SQL | Fetched 50 rows in 0.005 seconds

	EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID
1	100	Steven	King	SKING	515.123.4567	17-JUN-03	AD_PRES	24000	(null)	(null)	90
2	101	Neena	Kochhar	NKOCHHAR	515.123.4568	21-SEP-05	AD_VP	17000	(null)	100	90
3	102	Lex	De Haan	LDEHAAN	515.123.4569	13-JAN-01	AD_VP	17000	(null)	100	90
4	103	Alexander	Hunold	AHUNOLD	590.423.4567	03-JAN-06	IT_PROG	9000	(null)	102	60
5	108	Nancy	Greenberg	NGREENBE	515.124.4569	17-AUG-02	FI_MGR	12008	(null)	101	100
6	109	Daniel	Faviet	DFAVIET	515.124.4169	16-AUG-02	FI_ACCOUNT	9000	(null)	108	100
7	110	John	Chen	JCHEN	515.124.4269	28-SEP-05	FI_ACCOUNT	8200	(null)	108	100
8	111	Ismael	Sciarra	ISCIARRA	515.124.4369	30-SEP-05	FI_ACCOUNT	7700	(null)	108	100
9	112	Jose Manuel	Urman	JMURMAN	515.124.4469	07-MAR-06	FI_ACCOUNT	7800	(null)	108	100
10	113	Luis	Popp	LPOPP	515.124.4567	07-DEC-07	FI_ACCOUNT	6900	(null)	108	100
11	114	Den	Raphaely	DRAPHEAL	515.127.4561	07-DEC-02	PU_MAN	11000	(null)	100	30

hr

Worksheet

Query Builder

--22P-9346

--Find the departments where the total salary expenditure is greater than the average
--total salary expenditure of all departments.

Select * From Employees;

select department_id, sum(salary) as total_salary from EMPLOYEES group by department_id
having sum(salary) > (select avg(department_salary)
from (select sum(salary) as department_salary from EMPLOYEES group by department_id));

Script Output x Query Result x

All Rows Fetched: 3 in 0.005 seconds

	DEPARTMENT_ID	TOTAL_SALARY
1	90	58000
2	50	156400
3	80	304500



Worksheet Query Builder

--22P-9346

--List all employees who have been with the company for more years than the average
--tenure of their respective department.

Select * From Employees;

select employee_id, first_name, last_name, department_id, hire_date,
floor(months_between(sysdate,hire_date)/12) as tenure from EMPLOYEES where floor(months_between(sysdate,hire_date)/12) >
(select avg(floor(months_between(sysdate,hire_date)/12)) from EMPLOYEES where department_id = department_id);

Script Output x Query Result x
SQL | Fetched 50 rows in 0.006 seconds

	EMPLOYEE_ID	FIRST_NAME	LAST_NAME	DEPARTMENT_ID	HIRE_DATE	TENURE
1	100	Steven	King	90	17-JUN-03	21
2	101	Neena	Kochhar	90	21-SEP-05	19
3	102	Lex	De Haan	90	13-JAN-01	24
4	103	Alexander	Hunold	60	03-JAN-06	19
5	105	David	Austin	60	25-JUN-05	19
6	106	Valli	Pataballa	60	05-FEB-06	19
7	108	Nancy	Greenberg	100	17-AUG-02	22
8	109	Daniel	Faviet	100	16-AUG-02	22
9	110	John	Chen	100	28-SEP-05	19
10	111	Tamara	Sciarr	100	30-SEP-05	19



Worksheet

---22P-9346





```
--Insert a backup of all employees from department 10 into a table called
--`employee backup`.
```

```
Select * From Employees;
```

```
CREATE TABLE Employee_Backup AS SELECT * FROM Employees
WHERE department id = 10;
```











```
SELECT * FROM EMPLOYEE_BACKUP;
```

Script Output x Query Result x

    SQL | All Rows Fetched: 1 in 0.01 seconds


EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID	
1	200	Jennifer	Whalen	JWHALEN	515.123.4444	17-SEP-03	AD_ASST	4400	(null)	101	10

hr



Worksheet

Query Builder

--22P-9346

--Update the salary of employees in department 20 by 5%, but only if their current salary
--is less than the average salary of department 20.

Select * From Employees;

update EMPLOYEES set salary = salary + (0.05 * salary)
where department_id = 20 and salary < (select avg(salary) from EMPLOYEES where department_id = 20);

Script Output x

Query Result x











Task completed in 0.075 seconds

Table EMPLOYEE_BACKUP created.

1 row updated.



Worksheet

Query Builder

--22P-9346

--Delete records from the `employee_backup` table where the employees no longer exist
--in the original `employees` table.

Select * From Employees;

DELETE from employee_backup where employee_id not in (select employee_id from EMPLOYEES);












Script Output x

Query Result x

Task completed in 0.06 seconds

0 rows deleted.

hr



WorksheetQuery Builder

--22P-9346

--Insert into `employee_bonus` the employee ID and bonus amount (20% of their salary)
--for employees who have a salary greater than the average salary of the company.












Select * From Employees;

CREATE TABLE employee_bonus (
 employee_id NUMBER PRIMARY KEY,
 bonus_amount NUMBER
);

INSERT into employee_bonus (employee_id, bonus_amount) select employee_id , salary * 0.2 as bonus_amount
from EMPLOYEES where salary > (select avg(salary) from EMPLOYEES);

SELECT * FROM EMPLOYEE_BONUS;

Script Output xQuery Result x



SQL | Fetched 50 rows in 0.006 seconds

	EMPLOYEE_ID	BONUS_AMOUNT
1	100	4800
2	101	3400
3	102	3400
4	103	1800
5	108	2401.6
6	109	1800
7	110	1640
8	111	1540
9	112	1560
10	113	1380
11	114	2200
12	120	1600
13	121	1640

---22P-9346

```
--Update the job title of employees who have been with the company for more than 10
--years, setting it to Senior before their current job title.
```

```
Select * From JOBS;
```

```
UPDATE JOBS SET job_title = 'Senior ' || job_title WHERE  
job_id IN (SELECT job_id FROM employees WHERE MONTHS_BETWEEN(SYSDATE, hire_date) / 12 > 10);
```