

```
1) SELECT job_id
FROM employees
WHERE hire_date BETWEEN '01-JAN-90' AND '30-JUN-90'
UNION
SELECT job_id
FROM employees
WHERE hire_date BETWEEN '01-JAN-91' AND '30-JUN-91';
```

JOB_ID
IT_PROG

```
2) SELECT '0'||5||'%' AS raise, employee_id, salary, (salary * 0.05) AS
new_salary_increase
FROM employees
WHERE department_id IN (10,50,110)
UNION
SELECT 10||'%' AS raise, employee_id, salary, (salary * 0.1) AS new_salary_increase
FROM employees
WHERE department_id IN (60)
UNION
SELECT 15||'%' AS raise, employee_id, salary, (salary * 0.15) AS new_salary_increase
FROM employees
WHERE department_id IN (20,80)
UNION
SELECT 'No Raise' AS raise, employee_id, salary, (salary * 0) AS new_salary_increase
FROM employees
WHERE department_id IN (90);
```

RAISE	EMPLOYEE_ID	SALARY	NEW_SALARY_INCREASE
05%	124	5800	290
05%	141	3500	175
05%	142	3100	155
05%	143	2600	130
05%	144	2500	125
05%	200	4400	220
05%	205	12000	600
05%	206	8300	415
10%	103	9000	900
10%	104	6000	600
10%	107	4200	420
15%	149	10500	1575
15%	174	11000	1650
15%	176	8600	1290

RAISE	EMPLOYEE_ID	SALARY	NEW_SALARY_INCREASE
15%	201	13000	1950
15%	202	6000	900
No Raise	100	24000	0
No Raise	101	17000	0
No Raise	102	17000	0

3) SELECT d.department_name, e.job_id, SUM(e.salary)
FROM departments d, employees e
WHERE e.department_id > 80 AND e.department_id = d.department_id
GROUP BY ROLLUP (d.department_name, e.job_id);

DEPARTMENT_NAME	JOB_ID	SUM(E.SALARY)
Executive	AD_VP	34000
Executive	AD_PRES	24000
Executive		58000
Accounting	AC_MGR	12000
Accounting	AC_ACCOUNT	8300
Accounting		20300
		78300

4) SELECT department_id, job_id, manager_id, MAX(salary), MIN(salary)
FROM employees
GROUP BY GROUPING SETS
((department_id, job_id), (job_id, manager_id));

DEPARTMENT_ID	JOB_ID	MANAGER_ID	MAX(SALARY)	MIN(SALARY)
	SA_REP		7000	7000
10	AD_ASST		4400	4400
20	MK_MAN		13000	13000
20	MK_REP		6000	6000
50	ST_MAN		5800	5800
50	ST_CLERK		3500	2500
60	IT_PROG		9000	4200
80	SA_MAN		10500	10500
80	SA_REP		11000	8600
90	AD_VP		17000	17000
90	AD_PRES		24000	24000
110	AC_MGR		12000	12000
110	AC_ACCOUNT		8300	8300
	AD_VP	100	17000	17000
DEPARTMENT_ID	JOB_ID	MANAGER_ID	MAX(SALARY)	MIN(SALARY)
	AC_MGR	101	12000	12000
	MK_MAN	100	13000	13000
	MK_REP	201	6000	6000
	SA_MAN	100	10500	10500

	SA_REP	149	11000	7000
	ST_MAN	100	5800	5800
	AD_ASST	101	4400	4400
	AD PRES		24000	24000
	IT_PROG	102	9000	9000
	IT_PROG	103	6000	4200
	ST_CLERK	124	3500	2500
	AC_ACCOUNT	205	8300	8300

5) SELECT last_name, department_name, salary
FROM (SELECT e.last_name, d.department_name, e.salary,
RANK() OVER (ORDER BY e.salary) AS ranking
FROM employees e, departments d
WHERE e.department_id = d.department_id
ORDER BY e.salary)
WHERE ranking <= 3;

LAST_NAME	DEPARTMENT_NAME	SALARY
Vargas	Shipping	2500
Matos	Shipping	2600
Davies	Shipping	3100

6) SELECT last_name, job_id
FROM employees OUTER
WHERE salary >
(SELECT AVG(salary)
FROM employees
WHERE department_id = OUTER.department_id)

LAST_NAME	JOB_ID
King	AD PRES
Hunold	IT_PROG
Mourgos	ST_MAN
Zlotkey	SA_MAN
Abel	SA_REP
Hartstein	MK_MAN
Higgins	AC_MGR