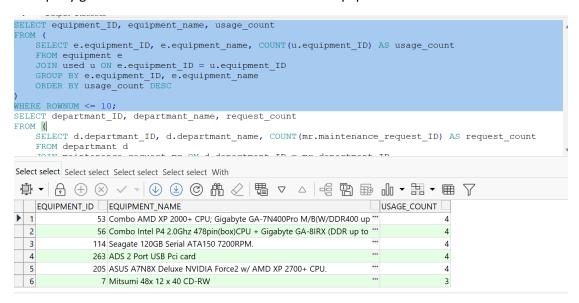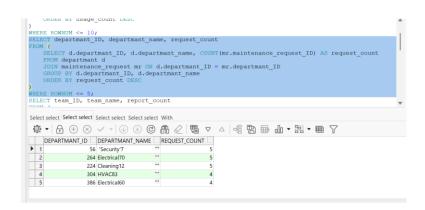# The maintenance department of a hospital, project in DB part 2

Natan Elia Weiss and Avraham Hasson

This query gives the IDs and names of the must used equipment

```
SELECT equipment_ID, equipment_name, usage_count
FROM (
    SELECT e.equipment_ID, e.equipment_name, COUNT(u.equipment_ID) AS usage_count
    FROM equipment e
    JOIN used u ON e.equipment_ID = u.equipment_ID
    GROUP BY e.equipment_ID, e.equipment_name
    ORDER BY usage_count DESC
)
WHERE ROWNUM <= 10;
SELECT departmant_ID, departmant_name, request_count
FROM (
    SELECT d.departmant_ID, d.departmant_name, COUNT(mr.maintenance_request_ID) AS request_count
    FROM departmant d
```

Select select Select select Select select Select select With

	EQUIPMENT_ID	EQUIPMENT_NAME	USAGE_COUNT
1	53	Combo AMD XP 2000+ CPU; Gigabyte GA-7N400Pro M/B(W/DDR400 up	4
2	56	Combo Intel P4 2.0Ghz 478pin(box)CPU + Gigabyte GA-8IRX (DDR up to	4
3	114	Seagate 120GB Serial ATA150 7200RPM.	4
4	263	ADS 2 Port USB Pci card	4
5	205	ASUS A7N8X Deluxe NVIDIA Force2 w/ AMD XP 2700+ CPU.	4
6	7	Mitsumi 48x 12 x 40 CD-RW	3

The departments that have the must maintenance requests

```
ORDER BY usage_count DESC
)
WHERE ROWNUM <= 10;
SELECT departmant_ID, departmant_name, request_count
FROM (
    SELECT d.departmant_ID, d.departmant_name, COUNT(mr.maintenance_request_ID) AS request_count
    FROM departmant d
    JOIN maintenance_request mr ON d.departmant_ID = mr.departmant_ID
    GROUP BY d.departmant_ID, d.departmant_name
    ORDER BY request_count DESC
)
WHERE ROWNUM <= 5;
SELECT team_ID, team_name, report_count
```

Select select Select select Select select Select select With

	DEPARTMANT_ID	DEPARTMANT_NAME	REQUEST_COUNT
1	56	'Security'7	5
2	264	Electrical70	5
3	224	Cleaning12	5
4	304	HVAC83	4
5	386	Electrical60	4

The teams that worked the must

```
SELECT team_ID, team_name, report_count
FROM (
    SELECT t.team_ID, t.team_name, COUNT(w.report_ID) AS report_count
    FROM team t
    JOIN worked w ON t.team_ID = w.team_ID
    GROUP BY t.team_ID, t.team_name
    ORDER BY report_count DESC
)
WHERE ROWNUM <= 5;
SELECT team_ID, team_name, member_count
FROM (
    SELECT t.team_ID, t.team_name, COUNT(mo.employee_ID) AS member_count
    FROM team t
```

Select select Select select Select select Select select With

	TEAM_ID	TEAM_NAME	REPORT_COUNT
1	10101	team c102	5
2	14901	team a150	4
3	39901	team d400	4
4	10801	team b109	4
5	34601	team a347	4

The equipments that were used last and when

```sql
WITH LatestUsage AS (
    SELECT u.equipment_ID, MAX(mr.report_date) AS latest_date
    FROM used u
    JOIN maintenance_report mr ON u.report_ID = mr.report_ID
    GROUP BY u.equipment_ID
    ORDER BY latest_date DESC
    FETCH FIRST 5 ROWS ONLY
)
SELECT lu.equipment_ID, e.equipment_name,
    TO_CHAR(lu.latest_date, 'YYYY-MM-DD') AS report_date,
    TO_CHAR(lu.latest_date, 'DD') AS day,
    TO_CHAR(lu.latest_date, 'MM') AS month
FROM LatestUsage lu
JOIN equipment e ON lu.equipment_ID = e.equipment_ID
ORDER BY lu.latest_date DESC;
```

Select select Select select Select select Select select **With**

	EQUIPMENT_ID	EQUIPMENT_NAME	REPORT_DATE	DAY	MONTH
1	209	Combo AMD XP 2000+ CPU; Gigabyte GA-7VT600L M/B(W/DDR400 up t ···	1899-12-30	30	12
2	253	Intel Pentium4 2.4ghz & Gigabyte 8IRXP MB w/ 313N Case. W/ Free PS2 ···	1899-12-30	30	12
3	493	LG 52x24x52x CD-RW (OEM).	··· 1899-12-30	30	12
4	390	ANTEC Performance PLUS Model PLUS1080 w/ Antec Original TRUE 430\···	1899-12-30	30	12

The parameter query's: reports from date to date, the supervisor of a certain department, the team of a certain employee and the works that a team did

```sql
SELECT *
FROM maintenance_report
WHERE
    report_date BETWEEN &<name = d_from type = date> AND &<name = d_to t

SELECT e.employee_name, e.employee_last_name
FROM employee e
JOIN departmant d ON e.employee_ID = d.superviser_ID
WHERE d.departmant_ID = &<name = dep_id type = string>;

SELECT e.employee_name, e.employee_last_name, t.team_name
FROM employee e
JOIN member_of m ON e.employee_ID = m.employee_ID
```

Variables

Name	Value
d_from	1/1/1500
d_to	1/1/2000
dep_id	12
emp_id	1000
team	1

OK   Cancel   Clear

Select maintenance_report Select employee Select employee Select maintenance_report

	REPORT_ID	MAINTENANCE_REPORT_DESCRIPTION	REPORT_DATE
1	1	do312J ATX Case with 400W P4/P3/AMD PS	··· 12/30/1899 1:00:00 AM ···
2	2	do256Mb DDR 333 PC2700 (samsung)	··· 12/30/1899 2:00:00 AM ···
3	3	repair313G-B ATX case 400W P4/AMD Free Fan and 2 Front USB.	··· 12/30/1899 3:00:00 AM ···
4	4	installCombo AMD XP 2500+ Gigabyte GA-7VA M/B.	··· 12/30/1899 4:00:00 AM ···
5	5	installCombo AMD XP 2500+ Barton CPU ASUS A7N8X Deluxe NVIDIA Fr···	12/30/1899 5:00:00 AM ···
6	6	repairCombo Intel P4 2.4Ghz retail CPU + Gigabyte GA-8ID533 M/B + Fan···	12/30/1899 6:00:00 AM ···

	EMPLOYEE_NAME	EMPLOYEE_LAST_NAME
1	Sharon ···	Reinhold ···

	EMPLOYEE_NAME	EMPLOYEE_LAST_NAME	TEAM_NAME
1	Celia ···	Numan ···	team c98 ···

	MAINTENANCE_REPORT_DESCRIPTION	REPORT_DATE
1	do256Mb DDR 333 PC2700 (samsung) ···	12/30/1899 2:00:00 AM ···
2	fixPrinter Cable ···	12/30/1899 10:00:00 PM ···

The delete ones delete the least used equipment and the team that worked the least