

teacher

id	dept	name	phone	mobile
101	1	Shrivell	2753	07986 555 1234
102	1	Throd	2754	07122 555 1920
103	1	Splint	2293	
104		Spiregrain	3287	
105	2	Cutflower	3212	07996 555 6574
106		Deadyawn	3345	
...				

dept

id	name
1	Computing
2	Design
3	Engineering
...	

1. Use the COALESCE function and a LEFT JOIN to print the teacher name and department name. Use the string 'None' where there is no department.

```
SELECT teacher.name,  
COALESCE(dept.name, 'None') AS name  
FROM teacher LEFT JOIN dept ON(dept=dept.id)
```

Output

name	name
Shrivell	Computing
Throd	Computing

Splint	Computing
Spiregrain	None
Cutflower	Design
Deadyawn	None

2. Use a different JOIN so that all departments are listed.

SELECT teacher.name, dept.name

FROM teacher

RIGHT JOIN dept ON (dept.id=teacher.dept)

Output

name	name
Shrivell	Computing
Throd	Computing
Splint	Computing
Cutflower	Design
null	Engineering

3. Use COUNT and GROUP BY **dept.name** to show each department and the number of staff.
Use a RIGHT JOIN to ensure that the Engineering department is listed.

SELECT dept.name, COUNT(teacher.name) as number

FROM teacher

RIGHT JOIN dept ON(dept.id=dept)

GROUP BY dept.name

Output

name	number
Computing	3

Design	1
Engineering	0

4. Use CASE to show the name of each teacher followed by 'Sci' if the teacher is in dept 1 or 2, show 'Art' if the teacher's dept is 3 and 'None' otherwise.

SELECT name,

CASE WHEN dept=1 then 'Sci'

 WHEN dept=2 then 'Sci'

 WHEN dept=3 then 'Art'

 ELSE 'None'

END

FROM teacher

Output

name	CASE WHEN dept=1 then 'Sci' WHEN dept=2 then 'Sci' WHEN dept=3 then 'Art' ELSE 'None' END
Shrivell	Sci
Throd	Sci
Splint	Sci
Spiregrain	None
Cutflower	Sci
Deadyawn	None