

### 577. Employee Bonus

June 22, 2017 | 20.1K views

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Select all employee's name and bonus whose bonus is < 1000.

Table: Employee

empId	name	supervisor	salary
1	John	3	1000
2	Dan	3	2000
3	Brad	null	4000
4	Thomas	3	4000

empId is the primary key column for this table.

Table: Bonus

```
+-----+-----+
| empId | bonus |
+-----+-----+
| 2     | 500   |
| 4     | 2000  |
+-----+-----+
```

empId is the primary key column for this table.

Example output:

```
+-----+-----+
| name | bonus |
+-----+-----+
| John | null  |
| Dan  | 500   |
| Brad | null  |
+-----+-----+
```

### Solution

Approach: Using **OUTER JOIN** and **WHERE** clause [Accepted]

### Intuition

Join table **Employee** with **Bonus** and then use **WHERE** clause to get the required records.

### Algorithm

Since foreign key **Bonus.empid** refers to **Employee.empid** and some employees do not have bonus records, we can use **OUTER JOIN** to link these two tables as the first step.

```
SELECT
    Employee.name, Bonus.bonus
FROM
    Employee
    LEFT OUTER JOIN
        Bonus ON Employee.empid = Bonus.empid
;
```

Note: "LEFT OUTER JOIN" could be written as "LEFT JOIN".

The output to run this code with the sample data is as below.

name	bonus
Dan	500
Thomas	2000
Brad	
John	

The bonus value for 'Brad' and 'John' is empty, which is actually **NULL** in the database. "Conceptually, NULL means "a missing unknown value" and it is treated somewhat differently from other values." Check the [Working with NULL Values](#) in MySQL manual for more details. In addition, we have to use **IS NULL** or **IS NOT NULL** to compare a value with **NULL**.

At last, we can add a **WHERE** clause with the proper conditions to filter these records.

## MySQL

```
SELECT
    Employee.name, Bonus.bonus
FROM
    Employee
    LEFT JOIN
        Bonus ON Employee.empid = Bonus.empid
WHERE
    bonus < 1000 OR bonus IS NULL
;
```


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
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 **tyumneva** ★ 83 · July 14, 2018 12:10 AM

```
select e.name, b.bonus
from Employee e
left join Bonus b
on e.emplid = b.emplid
where ifnull(b.bonus, 0) < 1000
```

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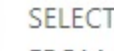
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SELECT e.name, b.bonus  
FROM employee as e  
LEFT JOIN bonus as b on e.empId = b.empId  
where b.bonus < 1000 or b.bonus is null

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Mrmagician ★ 188 ○ April 2, 2020 2:34 AM

```
select name, bonus from employee left join bonus on employee.empId = bonus.empId  
where bonus < 1000 or bonus is null;
```

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