

Queries



Queries extend monadic transformations.

Queries: Example

List all departments.

department



Query Composition

$Q_1 \cdot Q_2$



Query Composition: Example

List the names of all departments.

department.name



Counting Example

Show the number of departments.

`count(department)`



department



count(_)



Counting Challenge 1

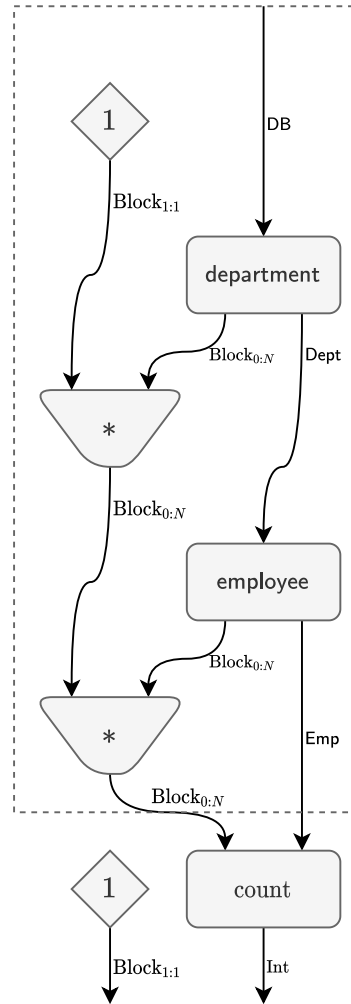
Show the number of employees
in each department.

`department.count(employee)`



```

graph TD
    1{1} -- Block_{1:1} --> J1((*))
    J1 -- Block_{0:N} --> J2((*))
    J1 -- Block_{0:N} --> J3((*))
    J2 -- Block_{0:N} --> J4((*))
    J3 -- Block_{0:N} --> J5((*))
    J4 -- Block_{0:N} --> Out1[Block_{0:N}]
    J5 -- Block_{0:N} --> Out2[Emp]
    
```



```
count(department.employee)
```

Counting Challenge 3



Counting Challenge 4



Counting Challenge 5



Show the number of employees in each department.

`department.count(employee)`