

# 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)`



# Counting Challenge 1

Show the number of employees  
in each department.

`department.count(employee)`



## Counting Challenge 2



Show the total number of employees across all departments.

`count(department.employee)`

# Counting Challenge 3

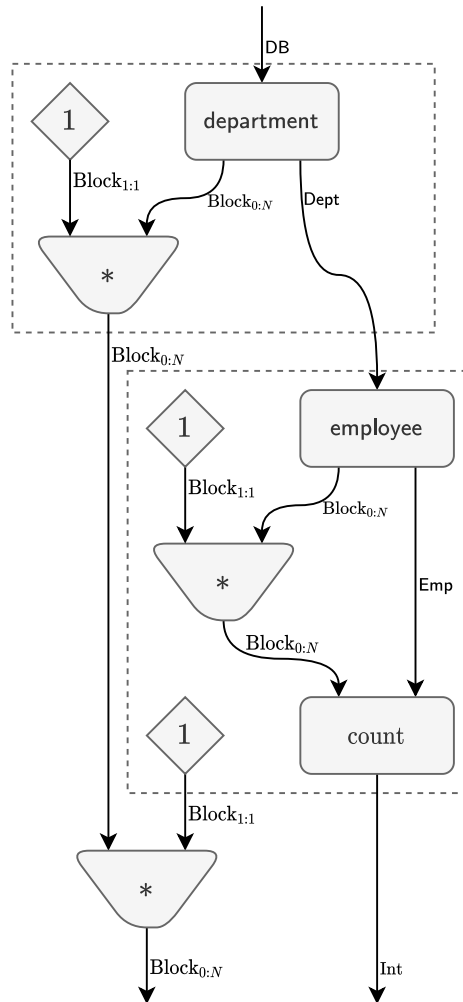
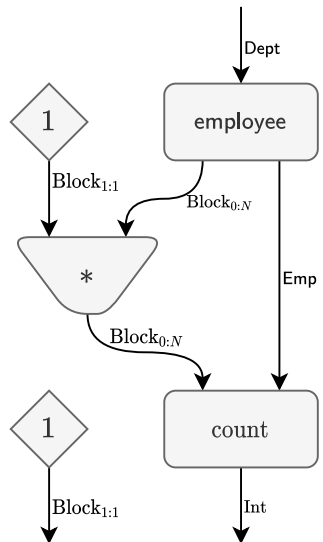




## Counting Challenge 4



## Counting Challenge 5



Show the number of employees in each department.

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