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MongoDB – Lab 3

Restore inventory database

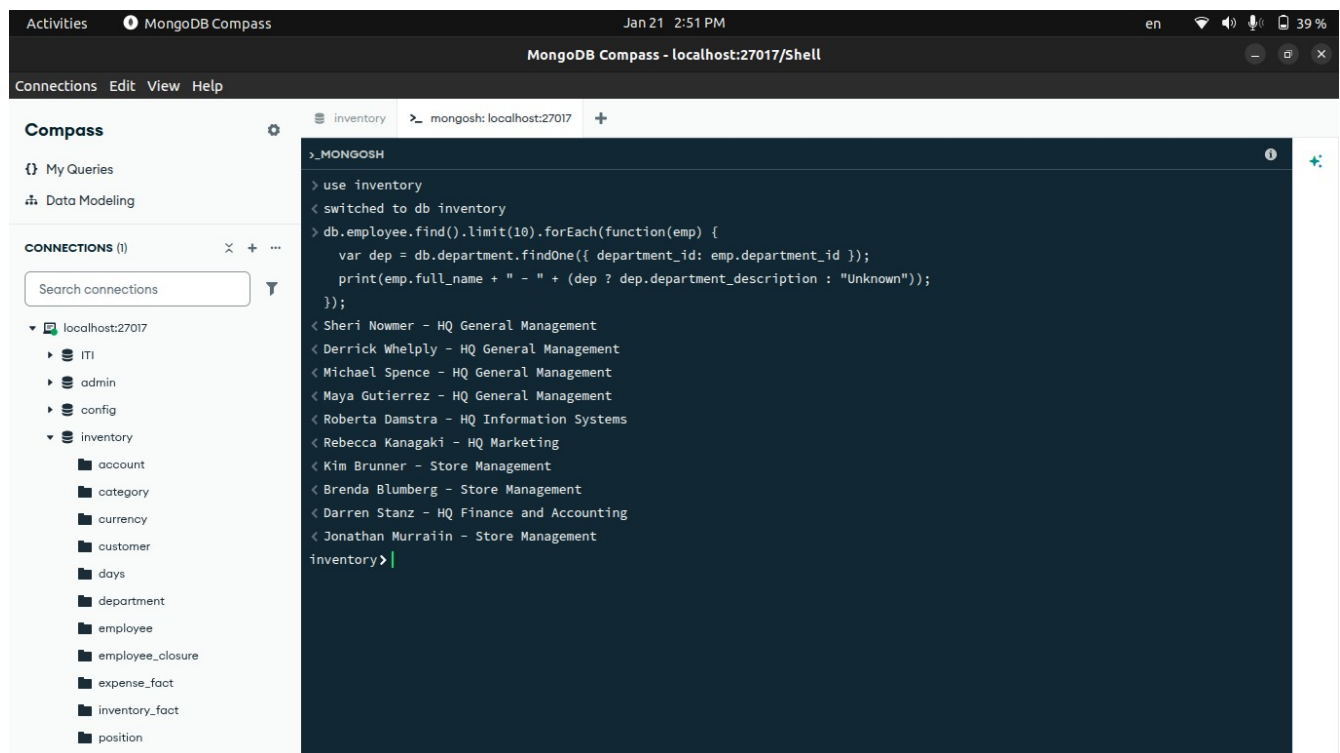
Write the following command on windows shell

mongorestore -d inventory “write folder path”

Ex: mongorestore -d inventory D:\intake39\MongoDB\Lab2\Inventory

Relations:

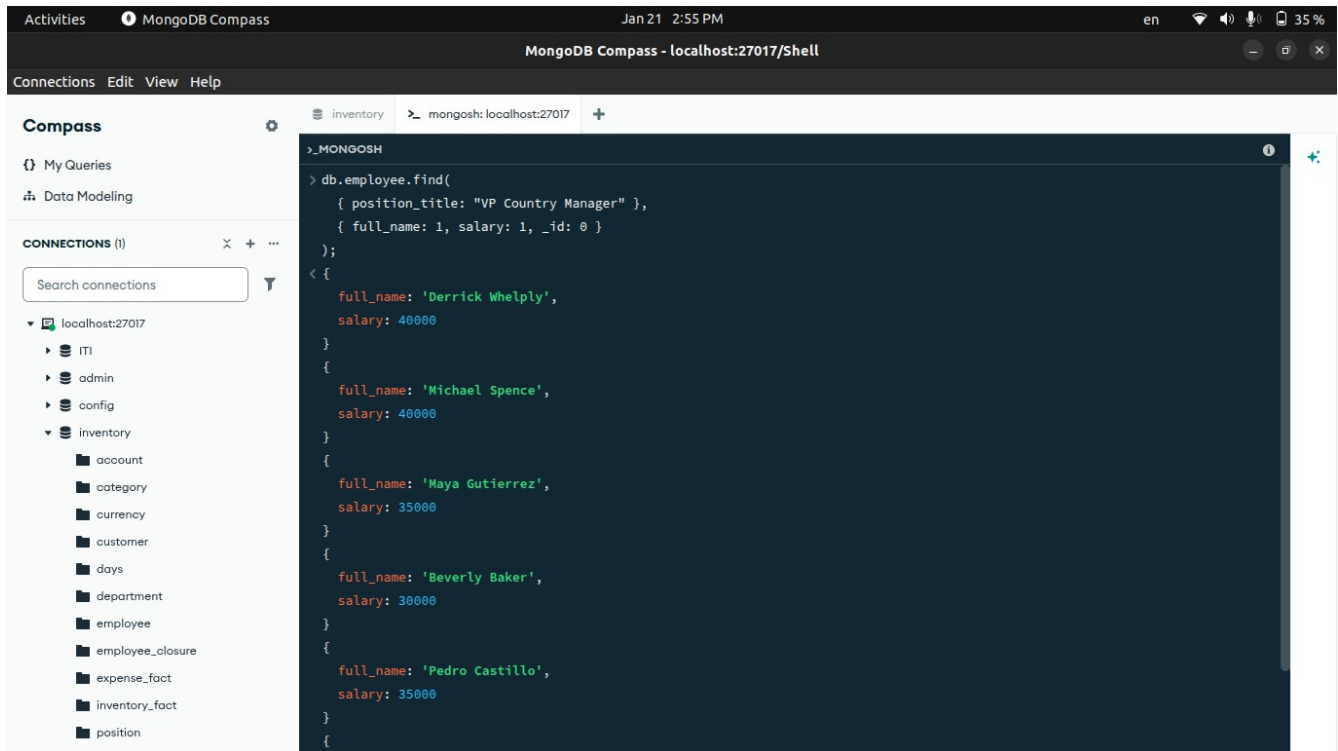
a- Display employees fullname and department name for all employees



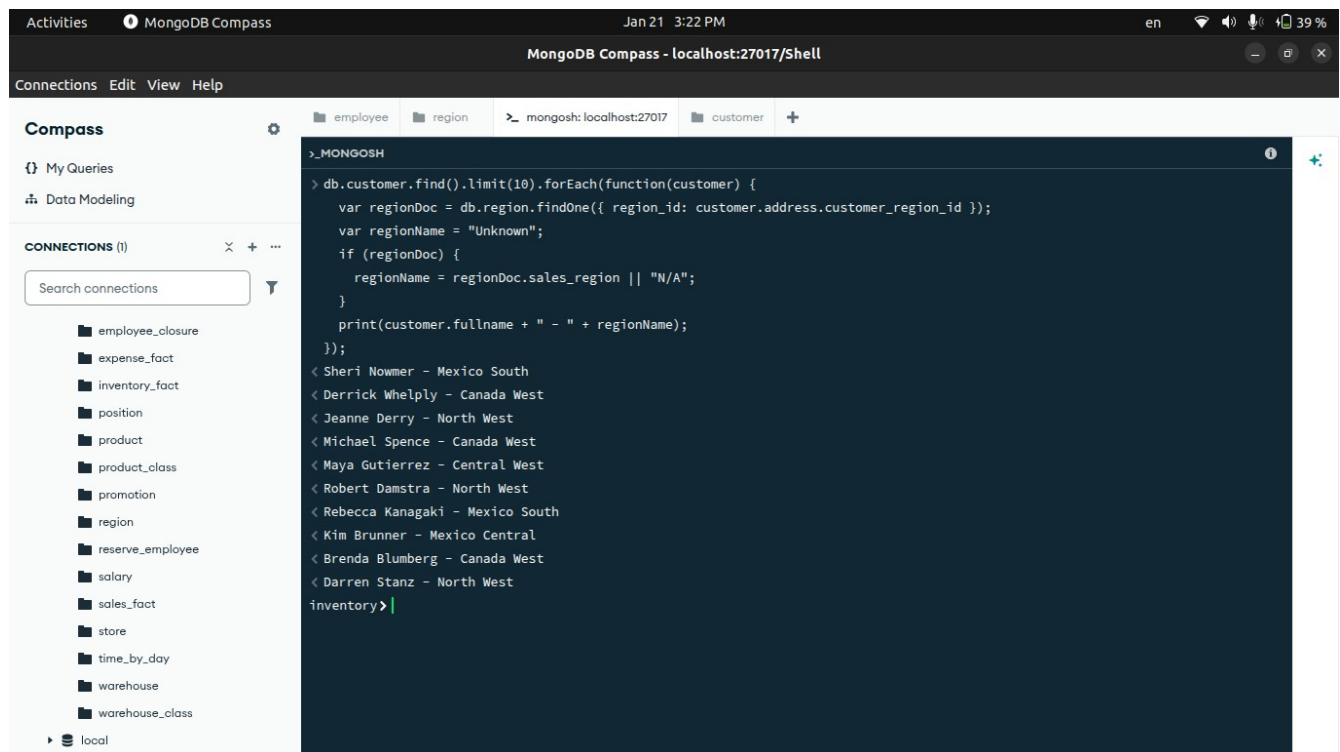
The screenshot shows the MongoDB Compass application window. The title bar indicates 'MongoDB Compass' and the system clock shows 'Jan 21 2:51 PM'. The main window has a menu bar with 'Connections', 'Edit', 'View', and 'Help'. Below the menu bar, there's a tab labeled 'inventory' and a shell prompt 'mongoosh: localhost:27017'. The left sidebar shows a tree view of connections and collections. The 'inventory' collection is expanded, showing sub-collections like 'account', 'category', 'currency', 'customer', 'days', 'department', 'employee', 'employee_closure', 'expense_fact', 'inventory_fact', and 'position'. The main area displays a JavaScript command in the shell:

```
>_MONGOSH
> use inventory
< switched to db inventory
> db.employee.find().limit(10).forEach(function(emp) {
    var dep = db.department.findOne({ department_id: emp.department_id });
    print(emp.full_name + " - " + (dep ? dep.department_description : "Unknown"));
});
< Sheri Nowmer - HQ General Management
< Derrick Whelply - HQ General Management
< Michael Spence - HQ General Management
< Maya Gutierrez - HQ General Management
< Roberta Damstra - HQ Information Systems
< Rebecca Kanagaki - HQ Marketing
< Kim Brunner - Store Management
< Brenda Blumberg - Store Management
< Darren Stanz - HQ Finance and Accounting
< Jonathan Murrain - Store Management
inventory>
```

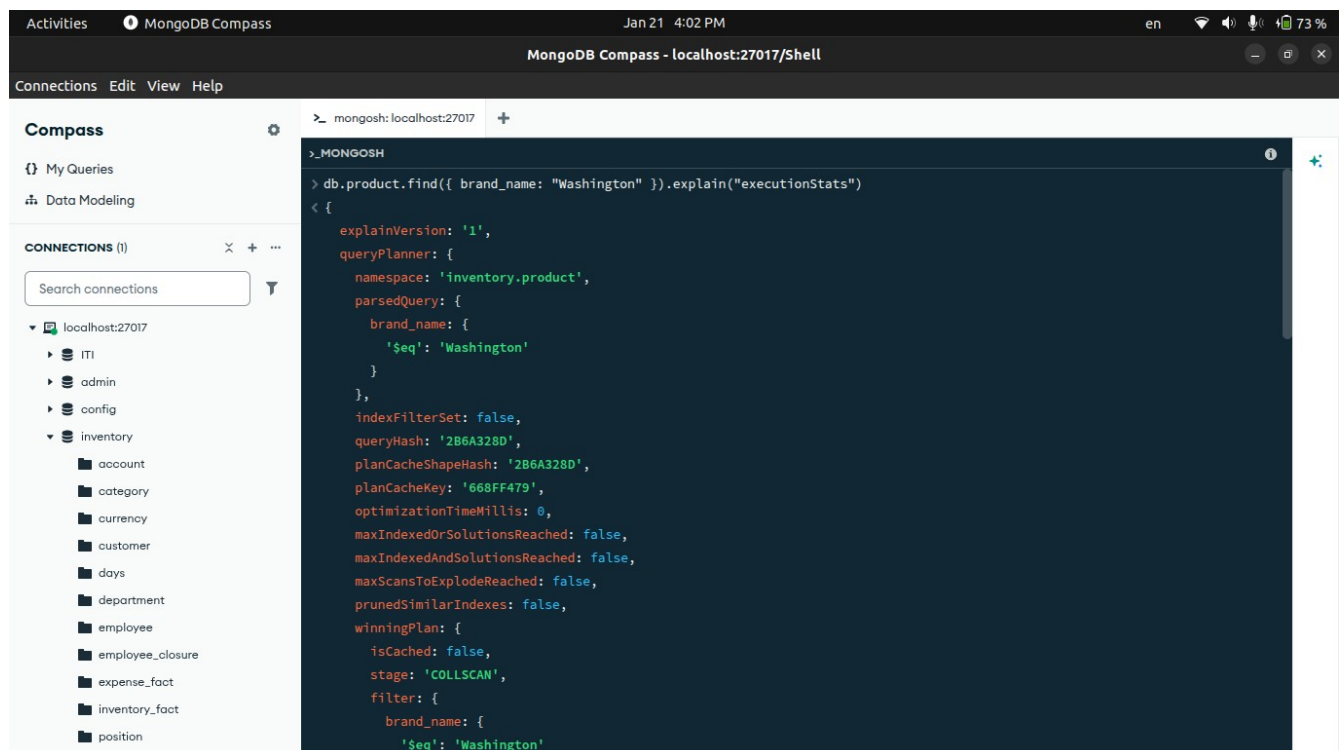
b- Display employees with position “VP Country Manager” (only display employee full name and salary).

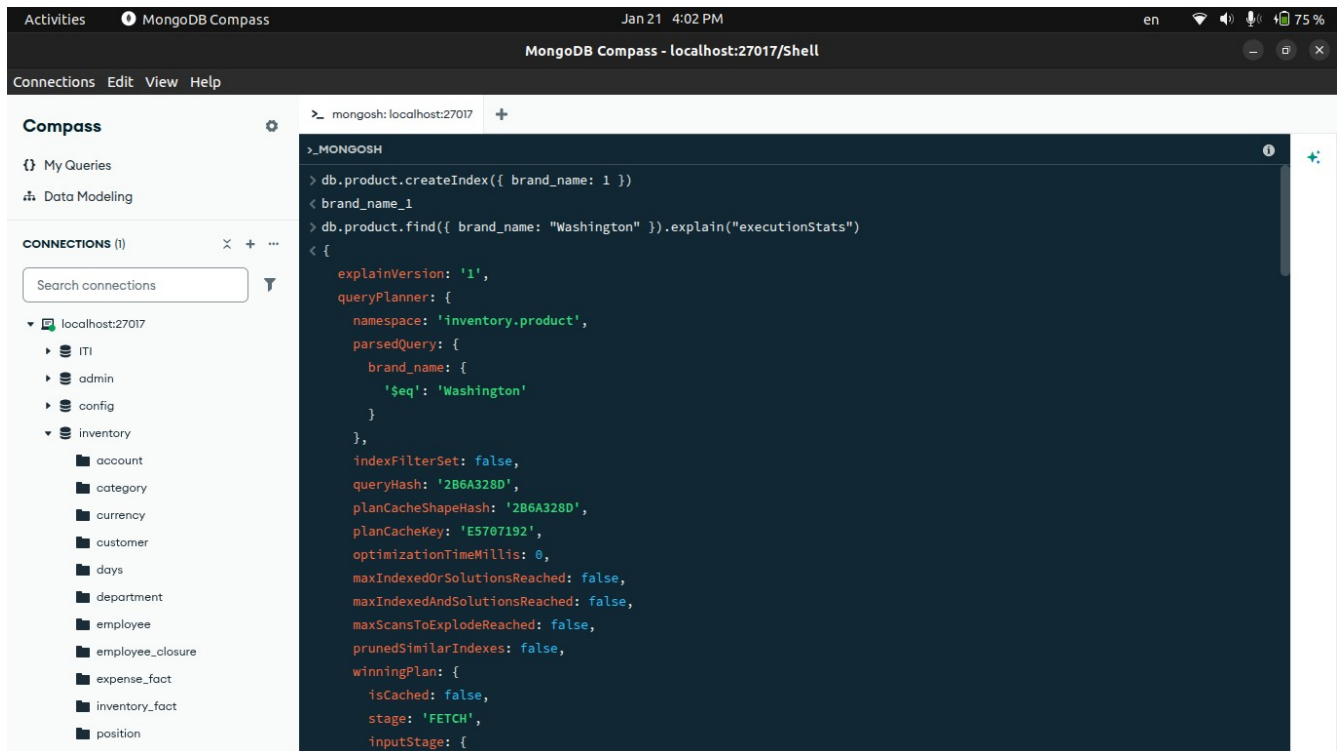


c- Display customers full names and their regions.



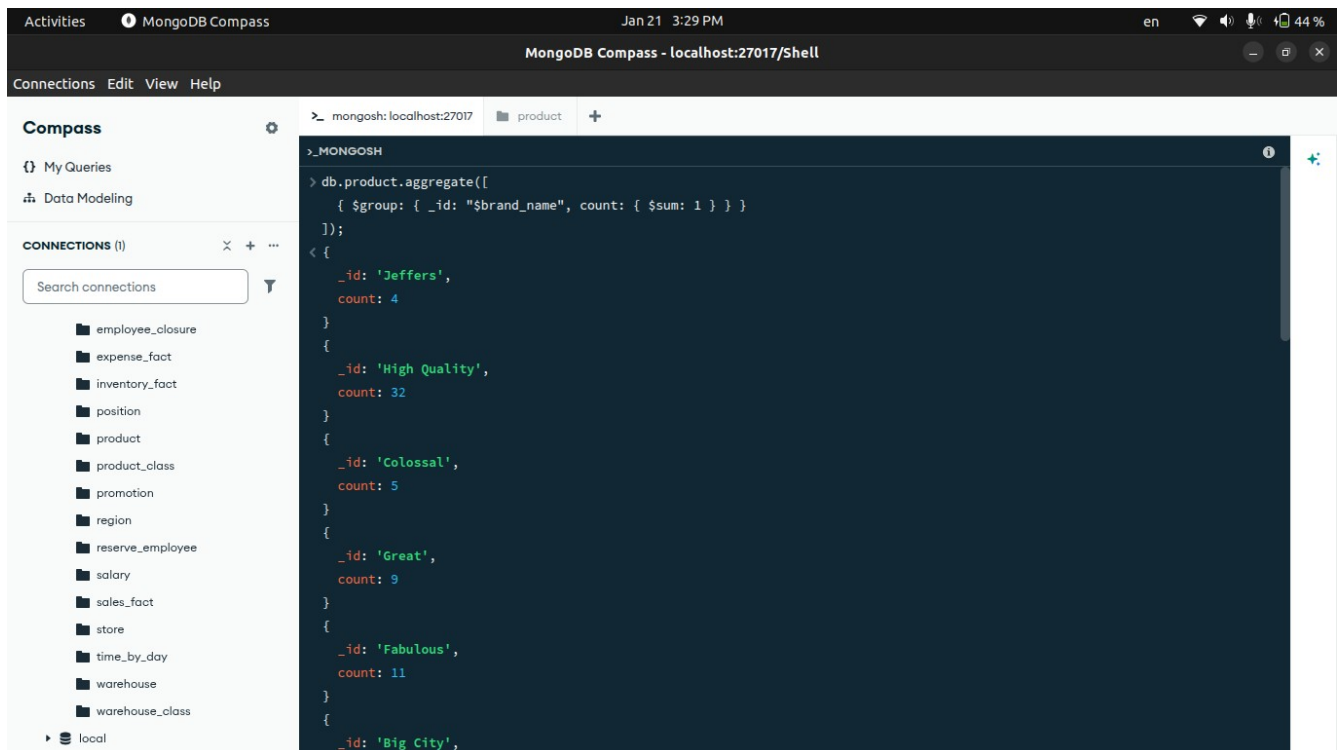
d- In product find all products that was branded by " Washington"
(try to createIndex on brand_name and test your query speed)



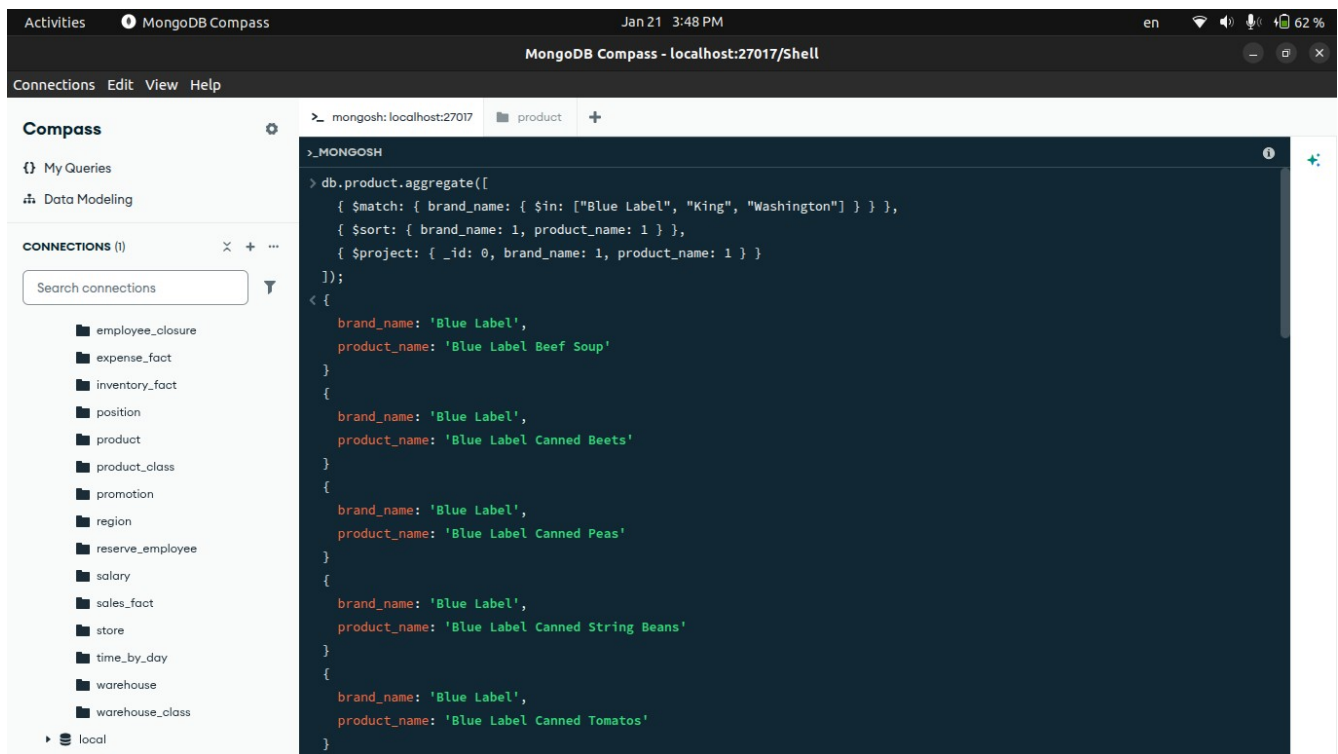


Aggregate function:

a- Group products by brand name, count number and display the result as follow:



b- Group products by brand_name and product_name ,only select brand names ("Blue Label","King","Washington") then sort them by brand_name and product_name ascending and display result as follow



The screenshot shows the MongoDB Compass application window. The title bar indicates it's running on Jan 21 at 3:48 PM. The main window is titled "MongoDB Compass - localhost:27017/Shell". The interface includes a sidebar on the left with "Connections" and a list of databases. The main area displays a MongoDB shell session with an aggregate query and its results.

```
>_MONGOSH
> db.product.aggregate([
  { $match: { brand_name: { $in: ["Blue Label", "King", "Washington"] } } },
  { $sort: { brand_name: 1, product_name: 1 } },
  { $project: { _id: 0, brand_name: 1, product_name: 1 } }
]);
< {
  brand_name: 'Blue Label',
  product_name: 'Blue Label Beef Soup'
}
{
  brand_name: 'Blue Label',
  product_name: 'Blue Label Canned Beets'
}
{
  brand_name: 'Blue Label',
  product_name: 'Blue Label Canned Peas'
}
{
  brand_name: 'Blue Label',
  product_name: 'Blue Label Canned String Beans'
}
{
  brand_name: 'Blue Label',
  product_name: 'Blue Label Canned Tomatos'
}
```

BONUS:Display maximum salary for each department (display department name and maximum salary)