



My Feeding



Docente:
Prof.ssa G. Tortora

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Studenti:
Settembre Angelo 0522500555
Settembre Pasquale 0522500554
Tropeano Domenico A. 0522500513

OBIETTIVO DEL PROGETTO

- Sviluppare un'applicazione Android che consenta all'utente di tenere sotto controllo la propria alimentazione avendo a disposizione le informazioni sui prodotti alimentari



TECNOLOGIE UTILIZZATE



mongoDB®



IL DATASET



- Open Food Facts
- 540'000 prodotti da tutto il mondo
- Informazioni sui prodotti, tabella nutrizionale, ingredienti, nutrienti, allergeni, ecc..

PULIZIA DEL DATASET

- Filtraggio del dataset con prodotti venduti in Italia
 - Circa 161,000 prodotti
- Il dataset iniziale aveva campi contenenti double quote
- Necessaria pulizia con tool



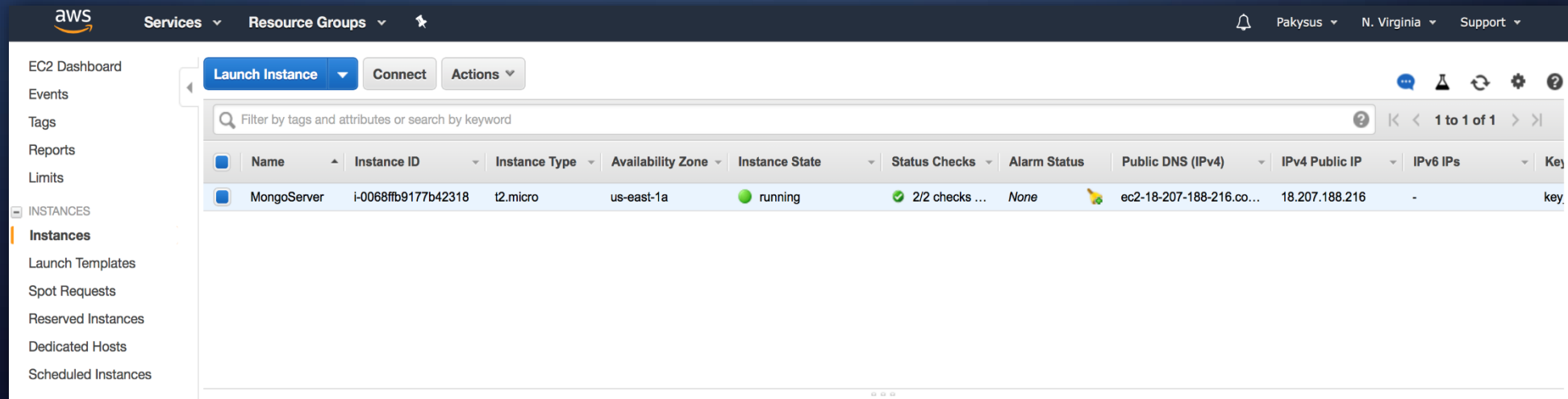
IL DATASET - 1

Result	Query Code	Explain										
			50	Documents 1 to 50								Table View
ItalianFood> _id												
_id	code	url	product_name	generic_name	quantity	packaging	packaging_tags	brands	brands_tags	categories	categories_tags	category
5b3276317263...	8000350004583	http://world-e...	Vincenzovo	biscotti savoiardi	300 g	Plastica	plastica	Pasticceria Mat...	pasticceria-ma...	it:Biscotti	en:sugary-snac...	Su...
5b3276317263...	8002795001424	http://world-e...	Latte intero microfiltrato U...	Latte intero	1 l	null	null	Sterilgarda	sterilgarda	en:dairies, en:...	en:dairies,en:m...	Da...
5b3276317263...	3017624047813	http://world-e...	Nutella	Pâte à tartiner ...	780 g	Bocal,pot,verre	bocal,pot,verre	Nutella,Ferrero	nutella,ferrero	Produits à tarti...	en:breakfasts,e...	Br...
5b3276317263...	5449000131805	http://world-e...	Coca Cola Zero	Boisson rafraîc...	330 ml	Canette,canette	canette,canette	Coca-Cola	coca-cola	en:artificially-s...	en:beverages,e...	Be...
5b3276317263...	8024370002701	http://world-e...	Yogurt intero	Yogurt	500g	Vasetto,Plastica	vasetto,plastica	Bontanova	bontanova	Latticini	en:dairies	Da...
5b3276317263...	7792798007547	http://world-e...	Cerveza	null	340 ml, 34 cl, 3...	Bouteille,Verre,...	bouteille,verre,...	Quilmes	quilmes	Bebidas,Bebida...	en:beverages,e...	Be...
5b3276317263...	9020200006917	http://world-e...	Joya Soya	Napitak od soj...	1 l	Carton	carton	Joya	joya	Plant-based fo...	en:plant-based...	PL...
5b3276317263...	8053904630028	http://world-e...	Konjac Grain	Konjac Grain	200 g	innerbox,carton	innerbox,carton	Wokfoods	wokfoods	Konjac	en:konjac	Ko...
5b3276317263...	8053904630714	http://world-e...	Shirataki konjac Linguini	konjac Linguini	200 g	Innerbox,carto...	innerbox,carto...	AsiaTica	asiatica	Plant-based fo...	en:plant-based...	PL...
5b3276317263...	8053904630592	http://world-e...	Shirataki ready to cook wit...	Shirataki Nood...	175 g e	innerbox	innerbox	WokFoods	wokfoods	Aliments d'ori...	en:aliments-d-...	Al...
5b3276317263...	8712857008109	http://world-e...	Aloe Lemon	Boisson à l'Alo...	500 ml	bouteille,plasti...	bouteille,plasti...	Tropical	tropical	Dranken,Planta...	fr:dranken,fr:o...	fr:
5b3276317263...	3330720213099	http://world-e...	Ananas cuit au chaudron	confiture d'ana...	300 g	pot,verre,couv...	pot,verre,couv...	Lucien Georgelin	lucien-georgelin	Aliments et boi...	en:plant-based...	PL...
5b3276317263...	20201807	http://world-e...	Muesli croustillant aux écla...	Céréales croust...	600 g	Sachet,Plastiqu...	sachet,plastiqu...	Crownfield	crownfield	en:plant-based...	en:plant-based...	PL...
5b3276317263...	3415581581010	http://world-e...	Fruit attraction (strawberrie...	crèmes glacées...	4 * 100 ml (4 * ...	carton,pots	carton,pots	Häagen-Dazs,...	haagen-dazs,g...	en:desserts, en:...	en:desserts,en:...	De...
5b3276317263...	3372900009177	http://world-e...	Crumble aux Pommes cara...	Crumble aux P...	130 g	carton,verre,frais	carton,verre,frais	Marie Morin	marie-morin	Desserts,Crum...	en:desserts,fr:c...	De...
5b3276317263...	8437006001274	http://world-e...	Bread Sinclair Nature	Pain sans glute...	50 g	Paper Box,Pack...	paper-box,pac...	Bread Sinclair	bread-sinclair	Aliments et boi...	en:plant-based...	PL...
5b3276317263...	5411676800408	http://world-e...	Bière blanche	Bière blanche	330 ml	Bouteille,Verre,...	bouteille,verre,...	Blanche de Bru...	blanche-de-br...	Boissons,Boiss...	en:beverages,e...	Be...
5b3276317263...	8001250003720	http://world-e...	Crackers Multicereali	Crackers Multi...	250 g	papier	papier	De Cecco	de-cecco	Crackers,Biscui...	en:salty-snacks...	Sa...
5b3276317263...	54107090	http://world-e...	Triple d'Anvers	Bière de haute ...	33 cl	Bouteille en ve...	bouteille-en-v...	De Koninck	de-koninck	Boissons,Boiss...	en:beverages,e...	Be...
5b3276317263...	5053827101493	http://world-e...	Coco Pops	Grains de riz so...	400 g	Carton	carton	Kellogg's,Coco...	kellogg-s,coco...	Aliments et boi...	en:plant-based...	PL...
5b3276317263...	3274080005003	http://world-e...	Eau de source	Eau de source ...	1,5 L	Bouteille,Plasti...	bouteille,plasti...	Cristaline	cristaline	Boissons,Eaux,...	en:beverages,e...	Be...
5b3276317263...	8002270014901	http://world-e...	Eau minérale gazeuse	Eau minérale g...	1 L	Bouteille & bo...	bouteille-bouc...	San Pellegrino	san-pellegrino	en:waters, ens:...	en:beverages,e...	Be...
5b3276317263...	7622300818821	http://world-e...	TUC Crispy	Crackers	100 g	Green dot,Plast...	green-dot,plas...	LU,Mondelez	lu,mondelez	en:salty-snacks...	en:salty-snacks...	Sa...
5b3276317263...	54085176	http://world-e...	Blonde dorée	Bière blonde d...	33 cl	Bouteille,Verre,...	bouteille,verre,...	Charles Quint,...	charles-quint,k...	Beverages,Alco...	en:beverages,e...	Be...
5b3276317263...	5410702000805	http://world-e...	Saison	Bière biologiqu...	25 cl	Bouteille,Verre,...	bouteille,verre,...	Dupont	dupont	Beverages,Alco...	en:beverages,e...	Be...
5b3276317263...	5412896006335	http://world-e...	Poperings	null	33 cl	Bouteille en ve...	bouteille-en-v...	Hommelbier	hommelbier	Beverages,Alco...	en:beverages,e...	Be...
5b3276317263...	8004030378001	http://world-e...	Filets de maquereau	null	null	canned	canned	null	null	Seafood,Fishes...	en:seafood,en:...	Se...
5b3276317263...	5053990101832	http://world-e...	Pringles Original	chips	190 g	nl:Boîte,nl:Kart...	nl-boite,nl-kart...	Pringles	pringles	Tuiles salées	nl:tuiles-salees	nl:
5b3276317263...	8001250120410	http://world-e...	Penne rigate n° 41	Pâtes alimentai...	500 g	sacchetto,plast...	sacchetto,plast...	DE CECCO	de-cecco	Aliments et boi...	italiments-d-o...	it.
5b3276317263...	5021554989172	http://world-e...	Bio Kitchen Organic Peanu...	Crema de Ame...	350 g	Frasco,Vidro	frasco,vidro	Clearspring	clearspring	Dairies,Spreads...	en:dairies,ens:...	Da...
5b3276317263...	5021554989196	http://world-e...	BioKitchen Organic Peanut...	Crema de Ame...	350 g	Frasco,Vidro	frasco,vidro	Clearspring	clearspring	Plant-based fo...	en:plant-based...	PL...
5b3276317263...	20003555	http://world-e...	Choco Duo	Magermilch-S...	750 g	70 GL	70-gl	Mister Choc	mister-choc	Nougatcremes	en:breakfasts,e...	Br...
5b3276317263...	8023788005137	http://world-e...	Yogurt 3,5%	Yogurt bianco ...	500 g	Vasetto,Plastica	vasetto,plastica	Yogo-Nat	yogo-nat	it:Crema di yo...	it:crema-di-yo...	it:
5b3276317263...	8052190637520	http://world-e...	La Spinoza	Chianti colli Fi...	375 ml	Glas	glas	null	null	Getränke,Alko...	it:alkoholische...	it:

SERVER



- Macchina AWS t2.micro localizzata in North Virginia
- Accesso tramite credenziali
- Istanza di MongoDB in ascolto su porta 27017



SERVER - 1

The screenshot displays the Studio 3T application interface. On the left, a sidebar shows a tree view of the database structure: 'MY_FOOD 18.207.188.216:27017' is expanded, showing 'Food' (Collections: 1) with sub-items 'ItalianFood', 'GridFS Buckets (0)', and 'System (0)', and 'local'.

The main panel is titled 'Recent Connections' and shows a connection to 'MY_FOOD (18.207.188.216:27017)' with a '+ Connect...' button. Below this, a 'What's new' section features links for 'Older' and 'Newer' updates. The announcement states: 'SQL Joins support now available in Studio 3T'. It includes a link to the 'Knowledge Base' for new users and explains that using 'SQL Query', data can now be joined via 'Inner Join' or 'Left Outer Join'. A code editor snippet shows an SQL query: '1 SELECT Orders._id, Customers.name', '2 FROM Orders', and '3 INNER JOIN Customers ON Orders.customerID = Customers._id'. The announcement concludes by stating that this allows joining data from different collections and provides a comprehensive comparison. It also mentions the inclusion of an MSI installer for Enterprise Edition users, the ability to save/load export settings, and other improvements. A link to 'What's New 2018.3' is provided for more details.

MY_FOOD 18.207.188.216:27017

- Food
 - Collections (1)
 - ItalianFood
 - GridFS Buckets (0)
 - System (0)
 - local

Recent Connections

➤ MY_FOOD (18.207.188.216:27017)

+ Connect...

What's new

[Older](#) [Newer](#)

SQL Joins support now available in Studio 3T

New to Studio 3T? Head over to our [Knowledge Base](#) and get up to speed.

Using [SQL Query](#), data can now be joined via a:

- Inner Join
- Left Outer Join

```
alice Studio 3T ReplicaSet (alice) [replica set] demo-shop
3T SQL Tutorial
1 SELECT Orders._id, Customers.name
2 FROM Orders
3 INNER JOIN Customers ON Orders.customerID = Customers._id
```

This means you can now join data from different collections and see a comprehensive comparison of the two.

We've also included- an MSI installer for Enterprise Edition users, the ability to save/load export settings, and other improvements to this release.

Read more about our latest release here: [What's New 2018.3](#)

INDICIZZAZIONE DEL DATABASE

- Necessario miglioramento delle prestazioni sulla ricerca.
- Indici secondari:
 - Nome prodotto
 - Categoria prodotto
 - Allergeni prodotto

```
Shell Output  ⌵
1  [
2      {
3          "v" : 1,
4          "key" : {
5              "_id" : 1
6          },
7          "name" : "_id_",
8          "ns" : "Food.ItalianFood"
9      },
10     {
11         "v" : 1,
12         "key" : {
13             "product_name" : 1
14         },
15         "name" : "product_name_1",
16         "ns" : "Food.ItalianFood"
17     },
18     {
19         "v" : 1,
20         "key" : {
21             "categories" : 1
22         },
23         "name" : "categories_1",
24         "ns" : "Food.ItalianFood"
25     },
26     {
27         "v" : 1,
28         "key" : {
29             "allergens" : 1
30         },
31         "name" : "allergens_1",
32         "ns" : "Food.ItalianFood"
33     }
34 ]
```

CONNESSIONE AL DB

```
MongoClient mongoClient = new MongoClient( host: "18.207.188.216", port: 27017);  
MongoDatabase db = mongoClient.getDatabase( databaseName: "Food");  
MongoCollection<Document> collection = db.getCollection( collectionName: "ItalianFood");  
return collection;
```

QUERY

- Query per prodotto:

- Nome
- Categoria
- Allergeni

```
BasicDBObject regexQuery = new BasicDBObject();
if (!advanced && !categorySearch) {
    regexQuery.put("product_name", new BasicDBObject("$regex", prod).append( key: "$options", val: "i"));
} else if (advanced) {
    regexQuery.put("allergens", new BasicDBObject("$regex", generateSearchString()).append( key: "$options", val: "i"));
} else if (categorySearch) {
    regexQuery.put("categories", new BasicDBObject("$regex", selectedCategories).append( key: "$options", val: "i"));
}
```

- Query per scansione codice a barre

```
MongoCollection<Document> collection = ConnectionDB.getConnection();

FindIterable<Document> result = collection.find(eq( fieldName: "code", productBarcode));
```

QUERY - 1

- Query per categoria e allergene
 - Operazione di AND

```
String pattern = ".*" + selectedCategories + ".*";
String pattern2 = ".*" + input + ".*";

FindIterable<Document> result;
MongoCollection<Document> collection = ConnectionDB.getConnection();

result = collection.find(and(regex( fieldName: "categories",pattern, options: "i"),regex( fieldName: "allergens",pattern2, options: "i")));
```

APPLICAZIONE ANDROID

- L'applicazione sviluppata permette all'utente di:
 - Ricercare prodotti per:
 - Nome
 - Barcode
 - Categoria di appartenenza
 - Allergeni
 - Personalizzazione dei propri allergeni

