

Examen Elastic search

Réalisé par Nour TOUNSI

Le 19/11/2023

Q1 : Répertoriez tous les quartiers de New York :

```
1 GET ncyrestaurant/_search
2 {
3   "size": 0,
4   "aggregations": {
5     "avg_of_boro": {
6       "terms": {
7         "field": "BORO",
8         "size": 12
9       }
10    }
11  }
12 }
```

```
9   },
10  "hits": {
11    "total": {
12      "value": 10000,
13      "relation": "gte"
14    },
15    "max_score": null,
16    "hits": []
17  },
18  "aggregations": {
19    "avg_of_boro": {
20      "doc_count_error_upper_bound": 0,
21      "sum_other_doc_count": 0,
22      "buckets": [
23        {
24          "key": "Manhattan",
25          "doc_count": 77251
26        },
27        {
28          "key": "Brooklyn",
29          "doc_count": 55803
30        },
31        {
32          "key": "Queens",
33          "doc_count": 49806
34        },
35        {
36          "key": "Bronx",
37          "doc_count": 18460
38        },
39        {
40          "key": "Staten Island",
41          "doc_count": 7160
42        }
43      ]
44    }
45  }
46 }
```

Figure 1 : Les quartiers de New York

- ✓ Get ncyrestaurant/_search : Cette ligne indique que nous effectuons une opération GET sur l'index "ncyrestaurant" en utilisant l'API de recherche d'Elasticsearch
- ✓ "size": 0 : Cela signifie que nous ne voulons pas de documents de retour dans les résultats de la recherche, nous sommes uniquement intéressés par les résultats de l'agrégation
- ✓ "aggregations" : C'est là que nous définissons les agrégations, qui sont des calculs effectués sur les données de votre index
- ✓ "avg-of-boro" : C'est le nom que nous donnons à notre agrégation. Il peut être n'importe quel nom de votre choix.
- ✓ "terms" : C'est le type d'agrégation que nous effectuons. Une agrégation de termes rassemble tous les documents qui partagent la même valeur dans un champ spécifique et les regroupe
- ✓ "field": "BORO" : Cela indique que nous effectuons l'agrégation sur le champ "BORO"

Q2 : Quel quartier compte le plus de restaurants ?

Dans cette requête, l'agrégation "terms" est utilisée pour regrouper les données par le champ "BORO", qui représente les quartiers de New York. Le paramètre "size" est défini sur 1, ce qui limite le nombre de termes renvoyés à 1. Le paramètre "order" est défini pour trier les résultats par nombre d'occurrences dans l'ordre décroissant.

```

1 GET ncyrestaurant/_search
2 {
3   "size": 0,
4   "aggregations": {
5     "avg_of_boro": {
6       "terms": {
7         "field": "BORO",
8         "size": 1,
9         "order": {
10          "_count": "desc"
11        }
12      }
13    }
14  }
15 }

```

```

1 {
2   "took": 2,
3   "timed_out": false,
4   "_shards": {
5     "total": 1,
6     "successful": 1,
7     "skipped": 0,
8     "failed": 0
9   },
10  "hits": {
11    "total": {
12      "value": 10000,
13      "relation": "gte"
14    },
15    "max_score": null,
16    "hits": []
17  },
18  "aggregations": {
19    "avg_of_boro": {
20      "doc_count_error_upper_bound": 0,
21      "sum_other_doc_count": 131229,
22      "buckets": [
23        {
24          "key": "Manhattan",
25          "doc_count": 77251
26        }
27      ]
28    }
29  }
30 }

```

Figure 2 : Le quartier qui compte le plus de restaurants

Q3 : Que signifie le code de violation « 04N » ?

Cette requête récupère la description de la violation pour le code "04N". Elle utilise une requête "match" pour filtrer les documents avec le code de violation "04N" et renvoie la première description de violation trouvée.

```

1 GET ncyrestaurant/_search
2 {
3   "size": 1,
4   "source": [
5     "VIOLATION DESCRIPTION"
6   ],
7   "query": {
8     "match": {
9       "VIOLATION CODE": "04N"
10    }
11  }
12 }

```

```

1 {
2   "took": 36,
3   "timed_out": false,
4   "_shards": {
5     "total": 1,
6     "successful": 1,
7     "skipped": 0,
8     "failed": 0
9   },
10  "hits": {
11    "total": {
12      "value": 9998,
13      "relation": "eq"
14    },
15    "max_score": 3.838651,
16    "hits": [
17      {
18        "_index": "ncyrestaurant",
19        "_id": "69v744sB-1MCQJ-ZPRex",
20        "_score": 3.838651,
21        "_source": {
22          "VIOLATION DESCRIPTION": "Filth flies or food/refuse/sewage associated with (FRSA) flies or other nuisance pests in establishment's food and/or non-food areas. FRSA flies include house flies, blow flies, bottle flies, flesh flies, drain flies, Phorid flies and fruit flies."
23        }
24      }
25    ]
26  }
27 }

```

Figure 3 : Signification du code de violation « 04N »

Q4 : Où se trouvent les restaurants (nom, adresse, quartier) notés A ?

Cette requête récupère les restaurants notés "A" et renvoie les informations de nom, adresse et quartier. Elle utilise une requête "match" pour filtrer les documents avec la note "A".

```
History Settings Variables Help 200 - OK 69 ms

1 GET ncyrestaurant/_search
2 {
3   "source": [
4     "DBA", "STREET", "BUILDING", "BORO", "ZIPCODE"
5   ],
6   "query": {
7     "match": {
8       "GRADE": "A"
9     }
10  }
11 }
```

```
1 {
2   "took": 8,
3   "timed_out": false,
4   "shards": {
5     "total": 1,
6     "successful": 1,
7     "skipped": 0,
8     "failed": 0
9   },
10  "hits": {
11    "total": {
12      "value": 10000,
13      "relation": "gte"
14    },
15    "max_score": 0.3641192,
16    "hits": [
17      {
18        "_index": "ncyrestaurant",
19        "_id": "m9v744s8-jMCQj-ZPRex",
20        "_score": 0.3641192,
21        "_source": {
22          "DBA": "ABC COCINA/ABC V",
23          "BUILDING": "38",
24          "BORO": "Manhattan",
25          "ZIPCODE": "10063",
26          "STREET": "EAST 19 STREET"
27        }
28      },
29      {
30        "_index": "ncyrestaurant",
31        "_id": "qWv744s8-jMCQj-ZPRex",
32        "_score": 0.3641192,
33        "_source": {
34          "DBA": "CASA GALICIA",
35          "BUILDING": "3789",
36          "BORO": "Queens",
37          "ZIPCODE": "11103",
38          "STREET": "31ST AVE"
39        }
40      },
41      {
42        "_index": "ncyrestaurant",
43        "_id": "rWv744s8-jMCQj-ZPRex",
44        "_score": 0.3641192,
45        "_source": {
46          "DBA": "PANERA BREAD",
47          "BUILDING": "2358",
48          "BORO": "Queens",
49          "ZIPCODE": "11360",
50          "STREET": "BELL BOULEVARD"
51        }
52      },
53      {
54        "_index": "ncyrestaurant",
55        "_id": "rtv744s8-jMCQj-ZPRex",
56        "_score": 0.3641192,
57        "_source": {
58          "DBA": "DUNKIN'",
59          "BUILDING": "7111",
60          "BORO": "Brooklyn",
61          "ZIPCODE": "11209",
62          "STREET": "3 AVENUE"
63        }
64      },
65      {
66        "_index": "ncyrestaurant",
67        "_id": "p9v744s8-jMCQj-ZPRex",
68        "_score": 0.3641192,
69        "_source": {
70          "DBA": "Yong Kong Street",
71          "BUILDING": "10085",
72          "BORO": "Manhattan",
73          "ZIPCODE": "10019",
74          "STREET": "8 AVENUE"
75        }
76      },
77      {
78        "_index": "ncyrestaurant",
79        "_id": "sWv744s8-jMCQj-ZPRex",
80        "_score": 0.3641192,
81        "_source": {
82          "DBA": "ZIA MARIA LITTLE ITALY",
83          "BUILDING": "118",
84          "BORO": "Manhattan",
85          "ZIPCODE": "10013",
86          "STREET": "MULBERRY STREET"
87        }
88      },
89      {
90        "_index": "ncyrestaurant",
91        "_id": "stv744s8-jMCQj-ZPRex",
92        "_score": 0.3641192,
93        "_source": {
94          "DBA": "THE GROUNDS OF BROOKLYN",
95          "BUILDING": "1117",
96          "BORO": "Brooklyn",
97          "ZIPCODE": "11238",
98          "STREET": "NEWKIRK AVENUE"
99        }
100     },
101     {
102       "_index": "ncyrestaurant",
103       "_id": "tWv744s8-jMCQj-ZPRex",
104       "_score": 0.3641192,
105       "_source": {
106         "DBA": "KOMBIT KREVOL",
107         "BUILDING": "279",
108         "BORO": "Brooklyn",
109         "ZIPCODE": "11201",
110         "STREET": "1ST AVENUE"
111       }
112     },
113     {
114       "_index": "ncyrestaurant",
115       "_id": "uWv744s8-jMCQj-ZPRex",
116       "_score": 0.3641192,
117       "_source": {
118         "DBA": "THE GARDEN OF EDDIE",
119         "BUILDING": "1117",
120         "BORO": "Brooklyn",
121         "ZIPCODE": "11238",
122         "STREET": "NEWKIRK AVENUE"
123       }
124     },
125     {
126       "_index": "ncyrestaurant",
127       "_id": "vWv744s8-jMCQj-ZPRex",
128       "_score": 0.3641192,
129       "_source": {
130         "DBA": "THE GARDEN OF EDDIE",
131         "BUILDING": "1117",
132         "BORO": "Brooklyn",
133         "ZIPCODE": "11238",
134         "STREET": "NEWKIRK AVENUE"
135       }
136     },
137     {
138       "_index": "ncyrestaurant",
139       "_id": "wWv744s8-jMCQj-ZPRex",
140       "_score": 0.3641192,
141       "_source": {
142         "DBA": "THE GARDEN OF EDDIE",
143         "BUILDING": "1117",
144         "BORO": "Brooklyn",
145         "ZIPCODE": "11238",
146         "STREET": "NEWKIRK AVENUE"
147       }
148     },
149     {
150       "_index": "ncyrestaurant",
151       "_id": "xWv744s8-jMCQj-ZPRex",
152       "_score": 0.3641192,
153       "_source": {
154         "DBA": "THE GARDEN OF EDDIE",
155         "BUILDING": "1117",
156         "BORO": "Brooklyn",
157         "ZIPCODE": "11238",
158         "STREET": "NEWKIRK AVENUE"
159       }
160     },
161     {
162       "_index": "ncyrestaurant",
163       "_id": "yWv744s8-jMCQj-ZPRex",
164       "_score": 0.3641192,
165       "_source": {
166         "DBA": "THE GARDEN OF EDDIE",
167         "BUILDING": "1117",
168         "BORO": "Brooklyn",
169         "ZIPCODE": "11238",
170         "STREET": "NEWKIRK AVENUE"
171       }
172     },
173     {
174       "_index": "ncyrestaurant",
175       "_id": "zWv744s8-jMCQj-ZPRex",
176       "_score": 0.3641192,
177       "_source": {
178         "DBA": "THE GARDEN OF EDDIE",
179         "BUILDING": "1117",
180         "BORO": "Brooklyn",
181         "ZIPCODE": "11238",
182         "STREET": "NEWKIRK AVENUE"
183       }
184     },
185     {
186       "_index": "ncyrestaurant",
187       "_id": "aWv744s8-jMCQj-ZPRex",
188       "_score": 0.3641192,
189       "_source": {
190         "DBA": "THE GARDEN OF EDDIE",
191         "BUILDING": "1117",
192         "BORO": "Brooklyn",
193         "ZIPCODE": "11238",
194         "STREET": "NEWKIRK AVENUE"
195       }
196     },
197     {
198       "_index": "ncyrestaurant",
199       "_id": "bWv744s8-jMCQj-ZPRex",
200       "_score": 0.3641192,
201       "_source": {
202         "DBA": "THE GARDEN OF EDDIE",
203         "BUILDING": "1117",
204         "BORO": "Brooklyn",
205         "ZIPCODE": "11238",
206         "STREET": "NEWKIRK AVENUE"
207       }
208     },
209     {
210       "_index": "ncyrestaurant",
211       "_id": "cWv744s8-jMCQj-ZPRex",
212       "_score": 0.3641192,
213       "_source": {
214         "DBA": "THE GARDEN OF EDDIE",
215         "BUILDING": "1117",
216         "BORO": "Brooklyn",
217         "ZIPCODE": "11238",
218         "STREET": "NEWKIRK AVENUE"
219       }
220     },
221     {
222       "_index": "ncyrestaurant",
223       "_id": "dWv744s8-jMCQj-ZPRex",
224       "_score": 0.3641192,
225       "_source": {
226         "DBA": "THE GARDEN OF EDDIE",
227         "BUILDING": "1117",
228         "BORO": "Brooklyn",
229         "ZIPCODE": "11238",
230         "STREET": "NEWKIRK AVENUE"
231       }
232     },
233     {
234       "_index": "ncyrestaurant",
235       "_id": "eWv744s8-jMCQj-ZPRex",
236       "_score": 0.3641192,
237       "_source": {
238         "DBA": "THE GARDEN OF EDDIE",
239         "BUILDING": "1117",
240         "BORO": "Brooklyn",
241         "ZIPCODE": "11238",
242         "STREET": "NEWKIRK AVENUE"
243       }
244     },
245     {
246       "_index": "ncyrestaurant",
247       "_id": "fWv744s8-jMCQj-ZPRex",
248       "_score": 0.3641192,
249       "_source": {
250         "DBA": "THE GARDEN OF EDDIE",
251         "BUILDING": "1117",
252         "BORO": "Brooklyn",
253         "ZIPCODE": "11238",
254         "STREET": "NEWKIRK AVENUE"
255       }
256     },
257     {
258       "_index": "ncyrestaurant",
259       "_id": "gWv744s8-jMCQj-ZPRex",
260       "_score": 0.3641192,
261       "_source": {
262         "DBA": "THE GARDEN OF EDDIE",
263         "BUILDING": "1117",
264         "BORO": "Brooklyn",
265         "ZIPCODE": "11238",
266         "STREET": "NEWKIRK AVENUE"
267       }
268     },
269     {
270       "_index": "ncyrestaurant",
271       "_id": "hWv744s8-jMCQj-ZPRex",
272       "_score": 0.3641192,
273       "_source": {
274         "DBA": "THE GARDEN OF EDDIE",
275         "BUILDING": "1117",
276         "BORO": "Brooklyn",
277         "ZIPCODE": "11238",
278         "STREET": "NEWKIRK AVENUE"
279       }
280     },
281     {
282       "_index": "ncyrestaurant",
283       "_id": "iWv744s8-jMCQj-ZPRex",
284       "_score": 0.3641192,
285       "_source": {
286         "DBA": "THE GARDEN OF EDDIE",
287         "BUILDING": "1117",
288         "BORO": "Brooklyn",
289         "ZIPCODE": "11238",
290         "STREET": "NEWKIRK AVENUE"
291       }
292     },
293     {
294       "_index": "ncyrestaurant",
295       "_id": "jWv744s8-jMCQj-ZPRex",
296       "_score": 0.3641192,
297       "_source": {
298         "DBA": "THE GARDEN OF EDDIE",
299         "BUILDING": "1117",
300         "BORO": "Brooklyn",
301         "ZIPCODE": "11238",
302         "STREET": "NEWKIRK AVENUE"
303       }
304     },
305     {
306       "_index": "ncyrestaurant",
307       "_id": "kWv744s8-jMCQj-ZPRex",
308       "_score": 0.3641192,
309       "_source": {
310         "DBA": "THE GARDEN OF EDDIE",
311         "BUILDING": "1117",
312         "BORO": "Brooklyn",
313         "ZIPCODE": "11238",
314         "STREET": "NEWKIRK AVENUE"
315       }
316     },
317     {
318       "_index": "ncyrestaurant",
319       "_id": "lWv744s8-jMCQj-ZPRex",
320       "_score": 0.3641192,
321       "_source": {
322         "DBA": "THE GARDEN OF EDDIE",
323         "BUILDING": "1117",
324         "BORO": "Brooklyn",
325         "ZIPCODE": "11238",
326         "STREET": "NEWKIRK AVENUE"
327       }
328     },
329     {
330       "_index": "ncyrestaurant",
331       "_id": "mWv744s8-jMCQj-ZPRex",
332       "_score": 0.3641192,
333       "_source": {
334         "DBA": "THE GARDEN OF EDDIE",
335         "BUILDING": "1117",
336         "BORO": "Brooklyn",
337         "ZIPCODE": "11238",
338         "STREET": "NEWKIRK AVENUE"
339       }
340     },
341     {
342       "_index": "ncyrestaurant",
343       "_id": "nWv744s8-jMCQj-ZPRex",
344       "_score": 0.3641192,
345       "_source": {
346         "DBA": "THE GARDEN OF EDDIE",
347         "BUILDING": "1117",
348         "BORO": "Brooklyn",
349         "ZIPCODE": "11238",
350         "STREET": "NEWKIRK AVENUE"
351       }
352     },
353     {
354       "_index": "ncyrestaurant",
355       "_id": "oWv744s8-jMCQj-ZPRex",
356       "_score": 0.3641192,
357       "_source": {
358         "DBA": "THE GARDEN OF EDDIE",
359         "BUILDING": "1117",
360         "BORO": "Brooklyn",
361         "ZIPCODE": "11238",
362         "STREET": "NEWKIRK AVENUE"
363       }
364     },
365     {
366       "_index": "ncyrestaurant",
367       "_id": "pWv744s8-jMCQj-ZPRex",
368       "_score": 0.3641192,
369       "_source": {
370         "DBA": "THE GARDEN OF EDDIE",
371         "BUILDING": "1117",
372         "BORO": "Brooklyn",
373         "ZIPCODE": "11238",
374         "STREET": "NEWKIRK AVENUE"
375       }
376     },
377     {
378       "_index": "ncyrestaurant",
379       "_id": "qWv744s8-jMCQj-ZPRex",
380       "_score": 0.3641192,
381       "_source": {
382         "DBA": "THE GARDEN OF EDDIE",
383         "BUILDING": "1117",
384         "BORO": "Brooklyn",
385         "ZIPCODE": "11238",
386         "STREET": "NEWKIRK AVENUE"
387       }
388     },
389     {
390       "_index": "ncyrestaurant",
391       "_id": "rWv744s8-jMCQj-ZPRex",
392       "_score": 0.3641192,
393       "_source": {
394         "DBA": "THE GARDEN OF EDDIE",
395         "BUILDING": "1117",
396         "BORO": "Brooklyn",
397         "ZIPCODE": "11238",
398         "STREET": "NEWKIRK AVENUE"
399       }
400     },
401     {
402       "_index": "ncyrestaurant",
403       "_id": "sWv744s8-jMCQj-ZPRex",
404       "_score": 0.3641192,
405       "_source": {
406         "DBA": "THE GARDEN OF EDDIE",
407         "BUILDING": "1117",
408         "BORO": "Brooklyn",
409         "ZIPCODE": "11238",
410         "STREET": "NEWKIRK AVENUE"
411       }
412     },
413     {
414       "_index": "ncyrestaurant",
415       "_id": "tWv744s8-jMCQj-ZPRex",
416       "_score": 0.3641192,
417       "_source": {
418         "DBA": "THE GARDEN OF EDDIE",
419         "BUILDING": "1117",
420         "BORO": "Brooklyn",
421         "ZIPCODE": "11238",
422         "STREET": "NEWKIRK AVENUE"
423       }
424     },
425     {
426       "_index": "ncyrestaurant",
427       "_id": "uWv744s8-jMCQj-ZPRex",
428       "_score": 0.3641192,
429       "_source": {
430         "DBA": "THE GARDEN OF EDDIE",
431         "BUILDING": "1117",
432         "BORO": "Brooklyn",
433         "ZIPCODE": "11238",
434         "STREET": "NEWKIRK AVENUE"
435       }
436     },
437     {
438       "_index": "ncyrestaurant",
439       "_id": "vWv744s8-jMCQj-ZPRex",
440       "_score": 0.3641192,
441       "_source": {
442         "DBA": "THE GARDEN OF EDDIE",
443         "BUILDING": "1117",
444         "BORO": "Brooklyn",
445         "ZIPCODE": "11238",
446         "STREET": "NEWKIRK AVENUE"
447       }
448     },
449     {
450       "_index": "ncyrestaurant",
451       "_id": "wWv744s8-jMCQj-ZPRex",
452       "_score": 0.3641192,
453       "_source": {
454         "DBA": "THE GARDEN OF EDDIE",
455         "BUILDING": "1117",
456         "BORO": "Brooklyn",
457         "ZIPCODE": "11238",
458         "STREET": "NEWKIRK AVENUE"
459       }
460     },
461     {
462       "_index": "ncyrestaurant",
463       "_id": "xWv744s8-jMCQj-ZPRex",
464       "_score": 0.3641192,
465       "_source": {
466         "DBA": "THE GARDEN OF EDDIE",
467         "BUILDING": "1117",
468         "BORO": "Brooklyn",
469         "ZIPCODE": "11238",
470         "STREET": "NEWKIRK AVENUE"
471       }
472     },
473     {
474       "_index": "ncyrestaurant",
475       "_id": "yWv744s8-jMCQj-ZPRex",
476       "_score": 0.3641192,
477       "_source": {
478         "DBA": "THE GARDEN OF EDDIE",
479         "BUILDING": "1117",
480         "BORO": "Brooklyn",
481         "ZIPCODE": "11238",
482         "STREET": "NEWKIRK AVENUE"
483       }
484     },
485     {
486       "_index": "ncyrestaurant",
487       "_id": "zWv744s8-jMCQj-ZPRex",
488       "_score": 0.3641192,
489       "_source": {
490         "DBA": "THE GARDEN OF EDDIE",
491         "BUILDING": "1117",
492         "BORO": "Brooklyn",
493         "ZIPCODE": "11238",
494         "STREET": "NEWKIRK AVENUE"
495       }
496     },
497     {
498       "_index": "ncyrestaurant",
499       "_id": "aWv744s8-jMCQj-ZPRex",
500       "_score": 0.3641192,
501       "_source": {
502         "DBA": "THE GARDEN OF EDDIE",
503         "BUILDING": "1117",
504         "BORO": "Brooklyn",
505         "ZIPCODE": "11238",
506         "STREET": "NEWKIRK AVENUE"
507       }
508     },
509     {
510       "_index": "ncyrestaurant",
511       "_id": "bWv744s8-jMCQj-ZPRex",
512       "_score": 0.3641192,
513       "_source": {
514         "DBA": "THE GARDEN OF EDDIE",
515         "BUILDING": "1117",
516         "BORO": "Brooklyn",
517         "ZIPCODE": "11238",
518         "STREET": "NEWKIRK AVENUE"
519       }
520     },
521     {
522       "_index": "ncyrestaurant",
523       "_id": "cWv744s8-jMCQj-ZPRex",
524       "_score": 0.3641192,
525       "_source": {
526         "DBA": "THE GARDEN OF EDDIE",
527         "BUILDING": "1117",
528         "BORO": "Brooklyn",
529         "ZIPCODE": "11238",
530         "STREET": "NEWKIRK AVENUE"
531       }
532     },
533     {
534       "_index": "ncyrestaurant",
535       "_id": "dWv744s8-jMCQj-ZPRex",
536       "_score": 0.3641192,
537       "_source": {
538         "DBA": "THE GARDEN OF EDDIE",
539         "BUILDING": "1117",
540         "BORO": "Brooklyn",
541         "ZIPCODE": "11238",
542         "STREET": "NEWKIRK AVENUE"
543       }
544     },
545     {
546       "_index": "ncyrestaurant",
547       "_id": "eWv744s8-jMCQj-ZPRex",
548       "_score": 0.3641192,
549       "_source": {
550         "DBA": "THE GARDEN OF EDDIE",
551         "BUILDING": "1117",
552         "BORO": "Brooklyn",
553         "ZIPCODE": "11238",
554         "STREET": "NEWKIRK AVENUE"
555       }
556     },
557     {
558       "_index": "ncyrestaurant",
559       "_id": "fWv744s8-jMCQj-ZPRex",
560       "_score": 0.3641192,
561       "_source": {
562         "DBA": "THE GARDEN OF EDDIE",
563         "BUILDING": "1117",
564         "BORO": "Brooklyn",
565         "ZIPCODE": "11238",
566         "STREET": "NEWKIRK AVENUE"
567       }
568     },
569     {
570       "_index": "ncyrestaurant",
571       "_id": "gWv744s8-jMCQj-ZPRex",
572       "_score": 0.3641192,
573       "_source": {
574         "DBA": "THE GARDEN OF EDDIE",
575         "BUILDING": "1117",
576         "BORO": "Brooklyn",
577         "ZIPCODE": "11238",
578         "STREET": "NEWKIRK AVENUE"
579       }
580     },
581     {
582       "_index": "ncyrestaurant",
583       "_id": "hWv744s8-jMCQj-ZPRex",
584       "_score": 0.3641192,
585       "_source": {
586         "DBA": "THE GARDEN OF EDDIE",
587         "BUILDING": "1117",
588         "BORO": "Brooklyn",
589         "ZIPCODE": "11238",
590         "STREET": "NEWKIRK AVENUE"
591       }
592     },
593     {
594       "_index": "ncyrestaurant",
595       "_id": "iWv744s8-jMCQj-ZPRex",
596       "_score": 0.3641192,
597       "_source": {
598         "DBA": "THE GARDEN OF EDDIE",
599         "BUILDING": "1117",
600         "BORO": "Brooklyn",
601         "ZIPCODE": "11238",
602         "STREET": "NEWKIRK AVENUE"
603       }
604     },
605     {
606       "_index": "ncyrestaurant",
607       "_id": "jWv744s8-jMCQj-ZPRex",
608       "_score": 0.3641192,
609       "_source": {
610         "DBA": "THE GARDEN OF EDDIE",
611         "BUILDING": "1117",
612         "BORO": "Brooklyn",
613         "ZIPCODE": "11238",
614         "STREET": "NEWKIRK AVENUE"
615       }
616     },
617     {
618       "_index": "ncyrestaurant",
619       "_id": "kWv744s8-jMCQj-ZPRex",
620       "_score": 0.3641192,
621       "_source": {
622         "DBA": "THE GARDEN OF EDDIE",
623         "BUILDING": "1117",
624         "BORO": "Brooklyn",
625         "ZIPCODE": "11238",
626         "STREET": "NEWKIRK AVENUE"
627       }
628     },
629     {
630       "_index": "ncyrestaurant",
631       "_id": "lWv744s8-jMCQj-ZPRex",
632       "_score": 0.3641192,
633       "_source": {
634         "DBA": "THE GARDEN OF EDDIE",
635         "BUILDING": "1117",
636         "BORO": "Brooklyn",
637         "ZIPCODE": "11238",
638         "STREET": "NEWKIRK AVENUE"
639       }
640     },
641     {
642       "_index": "ncyrestaurant",
643       "_id": "mWv744s8-jMCQj-ZPRex",
644       "_score": 0.3641192,
645       "_source": {
646         "DBA": "THE GARDEN OF EDDIE",
647         "BUILDING": "1117",
648         "BORO": "Brooklyn",
649         "ZIPCODE": "11238",
650         "STREET": "NEWKIRK AVENUE"
651       }
652     },
653     {
654       "_index": "ncyrestaurant",
655       "_id": "nWv744s8-jMCQj-ZPRex",
656       "_score": 0.3641192,
657       "_source": {
658         "DBA": "THE GARDEN OF EDDIE",
659         "BUILDING": "1117",
660         "BORO": "Brooklyn",
661         "ZIPCODE": "11238",
662         "STREET": "NEWKIRK AVENUE"
663       }
664     },
665     {
666       "_index": "ncyrestaurant",
667       "_id": "oWv744s8-jMCQj-ZPRex",
668       "_score": 0.3641192,
669       "_source": {
670         "DBA": "THE GARDEN OF EDDIE",
671         "BUILDING": "1117",
672         "BORO": "Brooklyn",
673         "ZIPCODE": "11238",
674         "STREET": "NEWKIRK AVENUE"
675       }
676     },
677     {
678       "_index": "ncyrestaurant",
679       "_id": "pWv744s8-jMCQj-ZPRex",
680       "_score": 0.3641192,
681       "_source": {
682         "DBA": "THE GARDEN OF EDDIE",
683         "BUILDING": "1117",
684         "BORO": "Brooklyn",
685         "ZIPCODE": "11238",
686         "STREET": "NEWKIRK AVENUE"
687       }
688     },
689     {
690       "_index": "ncyrestaurant",
691       "_id": "qWv744s8-jMCQj-ZPRex",
692       "_score": 0.3641192,
693       "_source": {
694         "DBA": "THE GARDEN OF EDDIE",
695         "BUILDING": "1117",
696         "BORO": "Brooklyn",
697         "ZIPCODE": "11238",
698         "STREET": "NEWKIRK AVENUE"
699       }
700     },
701     {
702       "_index": "ncyrestaurant",
703       "_id": "rWv744s8-jMCQj-ZPRex",
704       "_score": 0.3641192,
705       "_source": {
706         "DBA": "THE GARDEN OF EDDIE",
707         "BUILDING": "1117",
708         "BORO": "Brooklyn",
709         "ZIPCODE": "11238",
710         "STREET": "NEWKIRK AVENUE"
711       }
712     },
713     {
714       "_index": "ncyrestaurant",
715       "_id": "sWv744s8-jMCQj-ZPRex",
716       "_score": 0.3641192,
717       "_source": {
718         "DBA": "THE GARDEN OF EDDIE",
719         "BUILDING": "1117",
720         "BORO": "Brooklyn",
721         "ZIPCODE": "11238",
722         "STREET": "NEWKIRK AVENUE"
723       }
724     },
725     {
726       "_index": "ncyrestaurant",
727       "_id": "tWv744s8-jMCQj-ZPRex",
728       "_score": 0.3641192,
729       "_source": {
730         "DBA": "THE GARDEN OF EDDIE",
731         "BUILDING": "1117",
732         "BORO": "Brooklyn",
733         "ZIPCODE": "11238",
734         "STREET": "NEWKIRK AVENUE"
735       }
736     },
737     {
738       "_index": "ncyrestaurant",
739       "_id": "uWv744s8-jMCQj-ZPRex",
740       "_score": 0.3641192,
741       "_source": {
742         "DBA": "THE GARDEN OF EDDIE",
743         "BUILDING": "1117",
744         "BORO": "Brooklyn",
745         "ZIPCODE": "11238",
746         "STREET": "NEWKIRK AVENUE"
747       }
748     },
749     {
750       "_index": "ncyrestaurant",
751       "_id": "vWv744s8-jMCQj-ZPRex",
752       "_score": 0.3641192,
753       "_source": {
754         "DBA": "THE GARDEN OF EDDIE",
755         "BUILDING": "1117",
756         "BORO": "Brooklyn",
757         "ZIPCODE": "11238",
758         "STREET": "NEWKIRK AVENUE"
759       }
760     },
761     {
762       "_index": "ncyrestaurant",
763       "_id": "wWv744s8-jMCQj-ZPRex",
764       "_score": 0.3641192,
765       "_source": {
766         "DBA": "THE GARDEN OF EDDIE",
767         "BUILDING": "1117",
768         "BORO": "Brooklyn",
769         "ZIPCODE": "11238",
770         "STREET": "NEWKIRK AVENUE"
771       }
772     },
773     {
774       "_index": "ncyrestaurant",
775       "_id": "xWv744s8-jMCQj-ZPRex",
776       "_score": 0.3641192,
777       "_source": {
778         "DBA": "THE GARDEN OF EDDIE",
779         "BUILDING": "1117",
780         "BORO": "Brooklyn",
781         "ZIPCODE": "11238",
782         "STREET": "NEWKIRK AVENUE"
783       }
784     },
785     {
786       "_index": "ncyrestaurant",
787       "_id": "yWv744s8-jMCQj-ZPRex",
788       "_score": 0.3641192,
789       "_source": {
790         "DBA": "THE GARDEN OF EDDIE",
791         "BUILDING": "1117",
792         "BORO": "Brooklyn",
793         "ZIPCODE": "11238",
794         "STREET": "NEWKIRK AVENUE"
795       }
796     },
797     {
798       "_index": "ncyrestaurant",
799       "_id": "zWv744s8-jMCQj-ZPRex",
800       "_score": 0.3641192,
801       "_source": {
802         "DBA": "THE GARDEN OF EDDIE",
803         "BUILDING": "1117",
804         "BORO": "Brooklyn",
805         "ZIPCODE": "11238",
806         "STREET": "NEWKIRK AVENUE"
807       }
808     },
809     {
810       "_index": "ncyrestaurant",
811       "_id": "aWv744s8-jMCQj-ZPRex",
812       "_score": 0.3641192,
813       "_source": {
814         "DBA": "THE GARDEN OF EDDIE",
815         "BUILDING": "1117",
816         "BORO": "Brooklyn",
817         "ZIPCODE": "11238",
818         "STREET": "NEWKIRK AVENUE"
819       }
820     },
821     {
822       "_index": "ncyrestaurant",
823       "_id": "bWv744s8-jMCQj-ZPRex",
824       "_score": 0.3641192,
825       "_source": {
826         "DBA": "THE GARDEN OF EDDIE",
827         "BUILDING": "1117",
828         "BORO": "Brooklyn",
829         "ZIPCODE": "11238",
830         "STREET": "NEWKIRK AVENUE"
831       }
832     },
833     {
834       "_index": "ncyrestaurant",
835       "_id": "cWv744s8-jMCQj-ZPRex",
836       "_score": 0.3641192,
837       "_source": {
838         "DBA": "THE GARDEN OF EDDIE",
839         "BUILDING": "1117",
840         "BORO": "Brooklyn",
841         "ZIPCODE": "11238",
842         "STREET": "NEWKIRK AVENUE"
843       }
844     },
845     {
846       "_index": "ncyrestaurant",
847       "_id": "dWv744s8-jMCQj-ZPRex",
848       "_score": 0.3641192,
849       "_source": {
850         "DBA": "THE GARDEN OF EDDIE",
851         "BUILDING": "1117",
852         "BORO": "Brooklyn",
853         "ZIPCODE": "11238",
854         "STREET": "NEWKIRK AVENUE"
855       }
856     },
857     {
858       "_index": "ncyrestaurant",
859       "_id": "eWv744s8-jMCQj-ZPRex",
860       "_score": 0.3641192,
861       "_source": {
862         "DBA": "THE GARDEN OF EDDIE",
863         "BUILDING": "1117",
864         "BORO": "Brooklyn",
865         "ZIPCODE": "11238",
866         "STREET": "NEWKIRK AVENUE"
867       }
868     },
869     {
870       "_index": "ncyrestaurant",
871       "_id": "fWv744s8-jMCQj-ZPRex",
872       "_score": 0.3641192,
873       "_source": {
874         "DBA": "THE GARDEN OF EDDIE",
875         "BUILDING": "1117",
876         "BORO": "Brooklyn",
877         "ZIPCODE": "11238",
878         "STREET": "NEWKIRK AVENUE"
879       }
880     },
881     {
882       "_index": "ncyrestaurant",
883       "_id": "gWv744s8-jMCQj-ZPRex",
884       "_score": 0.3641192,
885       "_source": {
886         "DBA": "THE GARDEN OF EDDIE",
887         "BUILDING": "1117",
888         "BORO": "Brooklyn",
889         "ZIPCODE": "11238",
890         "STREET": "NEWKIRK AVENUE"
891       }
892     },
893     {
894       "_index": "ncyrestaurant",
895       "_id": "hWv744s8-jMCQj-ZPRex",
896       "_score": 0.3641192,
897       "_source": {
898         "DBA": "THE GARDEN OF EDDIE",
899         "BUILDING": "1117",
900         "BORO": "Brooklyn",
901         "ZIPCODE": "11238",
90
```


Et par quartier ?

```
1 GET ncyrestaurant/_search
2 {
3   "size": 0,
4   "_source": ["STREET"],
5   "aggregations": {
6     "cuisine": {
7       "terms": {
8         "field": "CUISINE DESCRIPTION",
9         "size": 1,
10        "order": {
11          "_count": "desc"
12        }
13      }
14    },
15    "quarter": {
16      "terms": {
17        "field": "BORO",
18        "size": 10
19      }
20    }
21  }
22 }
```

```
16   "hits": {}
17 }
18
19 aggregations: {
20   "cuisine": {
21     "doc_count_error_upper_bound": 0,
22     "sum_other_doc_count": 171710,
23     "buckets": [
24       {
25         "key": "American",
26         "doc_count": 34431
27       }
28     ]
29   },
30   "quarter": {
31     "doc_count_error_upper_bound": 0,
32     "sum_other_doc_count": 0,
33     "buckets": [
34       {
35         "key": "Manhattan",
36         "doc_count": 77251
37       },
38       {
39         "key": "Brooklyn",
40         "doc_count": 55803
41       },
42       {
43         "key": "Queens",
44         "doc_count": 49806
45       },
46       {
47         "key": "Bronx",
48         "doc_count": 18460
49       },
50       {
51         "key": "Staten Island",
52         "doc_count": 7160
53       }
54     ]
55   }
56 }
```

Figure 10 : La cuisine la plus populaire par quartier

Q6 : Quelle est la date de la dernière inspection ?

Cette requête récupère la date de la dernière inspection en triant les documents par "INSPECTION DATE" dans l'ordre décroissant et en renvoyant le premier document.

```
History Settings Variables Help
1 GET ncyrestaurant/_search
2 {
3   "size": 1,
4   "_source": ["INSPECTION DATE"],
5   "sort": { "INSPECTION DATE": "desc" },
6   "query": {
7     "match_all": {}
8   }
9 }
```

```
1 {
2   "took": 11,
3   "timed_out": false,
4   "_shards": {
5     "total": 1,
6     "successful": 1,
7     "skipped": 0,
8     "failed": 0
9   },
10  "hits": {
11    "total": {
12      "value": 10000,
13      "relation": "gte"
14    },
15    "max_score": null,
16    "hits": [
17      {
18        "_index": "ncyrestaurant",
19        "_id": "D9v744sB-jMCXQ-ZPRmx",
20        "_score": null,
21        "_source": {
22          "INSPECTION DATE": "11/06/2023"
23        },
24        "sort": [
25          1699228800000
26        ]
27      }
28    ]
29  }
30 }
```

Figure 11 : La date de la dernière inspection

Q7 : Fournissez la liste des restaurants chinois notés à Brooklyn :

Cette requête utilise une requête "bool" avec deux conditions "must" pour filtrer les restaurants chinois situés à Brooklyn.

The figure consists of three screenshots of a REST client interface, showing a search query and its results. The query is a GET request to `ncyrestaurant/_search` with a JSON body that filters for Chinese restaurants in Brooklyn using a `bool` query with two `must` clauses: `"CUISINE DESCRIPTION": "Chinese"` and `"BORO": "Brooklyn"`.

Top Screenshot: Shows the first two results of the search. The first result is for "WING HUA II" with index `ncyrestaurant` and id `tdv744sB-jMCXQ-ZPRex`. The second result is for "MR DUCK" with index `ncyrestaurant` and id `vdv744sB-jMCXQ-ZPRex`.

Middle Screenshot: Shows the next two results. The third result is for "XIN LI" with index `ncyrestaurant` and id `8Wv744sB-jMCXQ-ZPRex`. The fourth result is for "LUCKY ZHANGS" with index `ncyrestaurant` and id `19v744sB-jMCXQ-ZPRix`.

Bottom Screenshot: Shows the next two results. The fifth result is for "LUCKY HOUSE CHINESE KITCHEN" with index `ncyrestaurant` and id `Ytv744sB-jMCXQ-ZPRix`. The sixth result is for "SUN LUCK RESTAURANT" with index `ncyrestaurant` and id `h9v744sB-jMCXQ-ZPRix`.

Figure 12-14 : La liste des restaurants chinois notés à Brooklyn

Q8 : Quelle est l'adresse du restaurant LADUREE ?

Cette requête utilise une requête "match" pour filtrer les documents avec le nom "the LADUREE restaurant" et renvoie l'adresse (champ "STREET") du premier document trouvé.



The screenshot shows a REST client interface with two panels. The left panel displays the HTTP request, and the right panel displays the JSON response.

Request:

```
1 GET ncyrestaurant/_search
2 {
3   "size": 1,
4   "_source": ["STREET", "BORO", "BUILDING", "ZIPCODE"],
5   "query": {
6     "match": {
7       "DBA": "the LADUREE restaurant"
8     }
9   }
10 }
```

Response:

```
1 {
2   "took": 3,
3   "timed_out": false,
4   "_shards": {
5     "total": 1,
6     "successful": 1,
7     "skipped": 0,
8     "failed": 0
9   },
10  "hits": {
11    "total": {
12      "value": 10000,
13      "relation": "gte"
14    },
15    "max_score": 12.340788,
16    "hits": [
17      {
18        "_index": "ncyrestaurants",
19        "_id": "bt7944s8-jMCxQ-ZyvVy",
20        "_score": 12.340788,
21        "_source": {
22          "BUILDING": "864",
23          "BORO": "Manhattan",
24          "ZIPCODE": "10021",
25          "STREET": "MADISON AVENUE"
26        }
27      }
28    ]
29  }
30 }
```

Figure 13 : L'adresse du restaurant LADUREE

Q9 : Quelle cuisine est la plus touchée par l'infraction « Aliment chaud non maintenu à 140 °F ou plus » ?

Cette requête utilise une requête "match" pour filtrer les documents avec le code de violation "02B" et une agrégation "terms" pour déterminer la cuisine la plus touchée par cette infraction.

```
1 #Question 9:
2
3 get ncyrestaurant/_search
4 {
5   "_source": ["CUISINE DESCRIPTION"],
6   "size": 0,
7   "query": {
8     "match": {
9       "VIOLATION DESCRIPTION": "Hot food item not held at or above 140°
10      F"
11     }
12   },
13   "aggs": {
14     "top_cuisine": {
15       "terms": {
16         "field": "CUISINE DESCRIPTION",
17         "size": 1,
18         "order": {
19           "_count": "desc"
20         }
21       }
22     }
23   }
24 }
```

```
1 {
2   "took": 1,
3   "timed_out": false,
4   "_shards": {
5     "total": 1,
6     "successful": 1,
7     "skipped": 0,
8     "failed": 0
9   },
10  "hits": {
11    "total": {
12      "value": 10000,
13      "relation": "gte"
14    },
15    "max_score": null,
16    "hits": []
17  },
18  "aggregations": {
19    "top_cuisine": {
20      "doc_count_error_upper_bound": 0,
21      "sum_other_doc_count": 166008,
22      "buckets": [
23        {
24          "key": "American",
25          "doc_count": 33321
26        }
27      ]
28    }
29  }
30 }
```

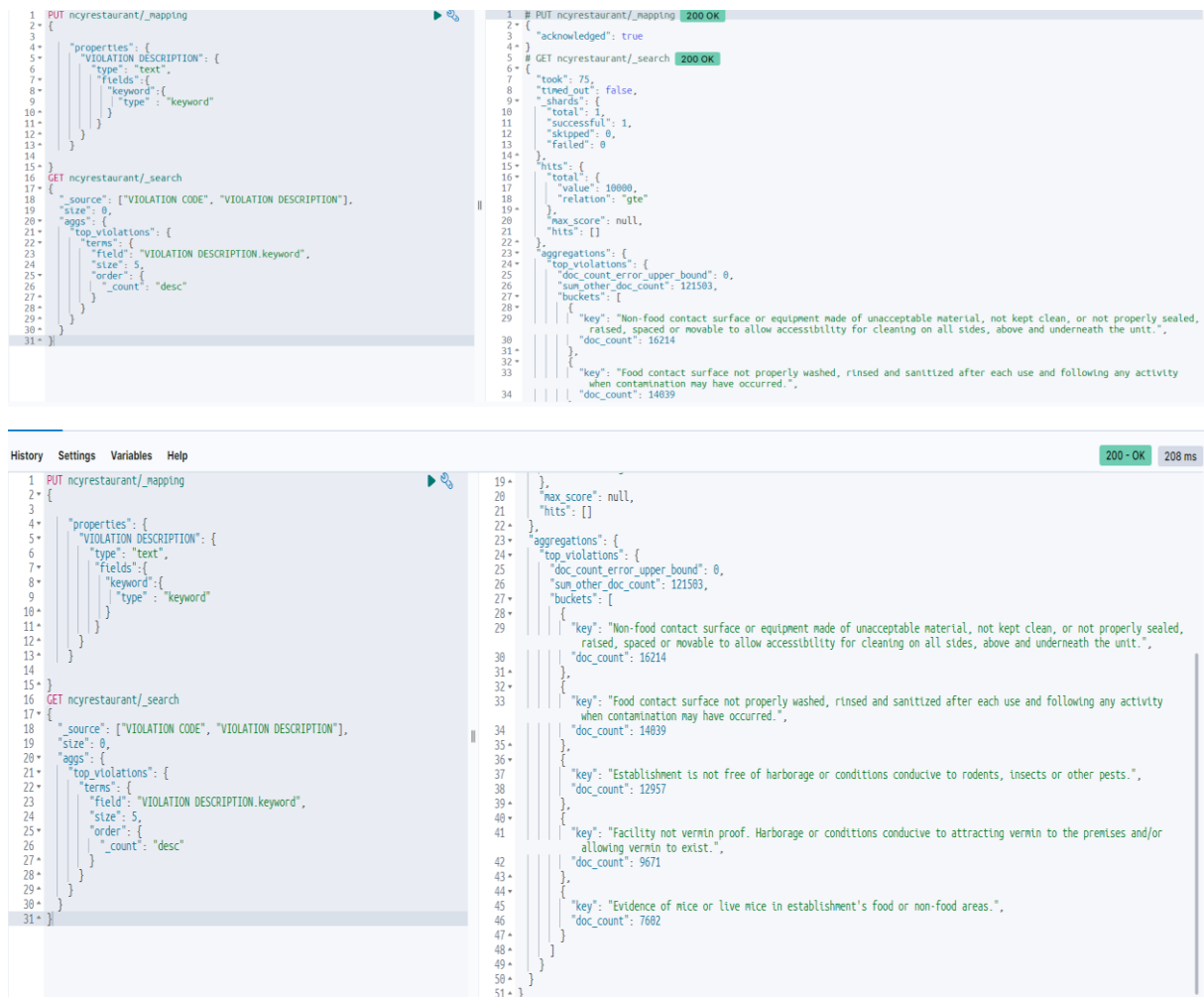
Figure 14 : La cuisine est la plus touchée par l'infraction « Aliment chaud non maintenu à 140 °F ou plus »

Q10 : Quelles sont les violations les plus courantes (Top 5) ?

Ces requêtes sont conçues pour créer une cartographie pour un champ nommé "DESCRIPTION DE VIOLATION", puis effectuer une agrégation pour trouver les cinq premières descriptions de violation dans l'index "ncyrestaurant".

La première requête est une requête PUT qui crée une cartographie pour le champ "DESCRIPTION DE VIOLATION". Ce champ est de type "texte" et a un sous-champ "mot-clé" de type "mot-clé". Cela permet au champ d'être utilisé dans des requêtes au niveau des termes, telles que le tri ou l'agrégation, qui ne sont généralement pas prises en charge par les champs de texte.

La deuxième requête est une requête GET qui effectue une agrégation de termes sur le champ "DESCRIPTION DE VIOLATION.mot-clé". Cela renverra les cinq descriptions de violation les plus courantes dans l'index "ncyrestaurant". Le paramètre "size" est défini sur 0, ce qui signifie qu'aucun document ne sera renvoyé dans la section "hits" de la réponse. Au lieu de cela, la réponse inclura uniquement les résultats de l'agrégation.



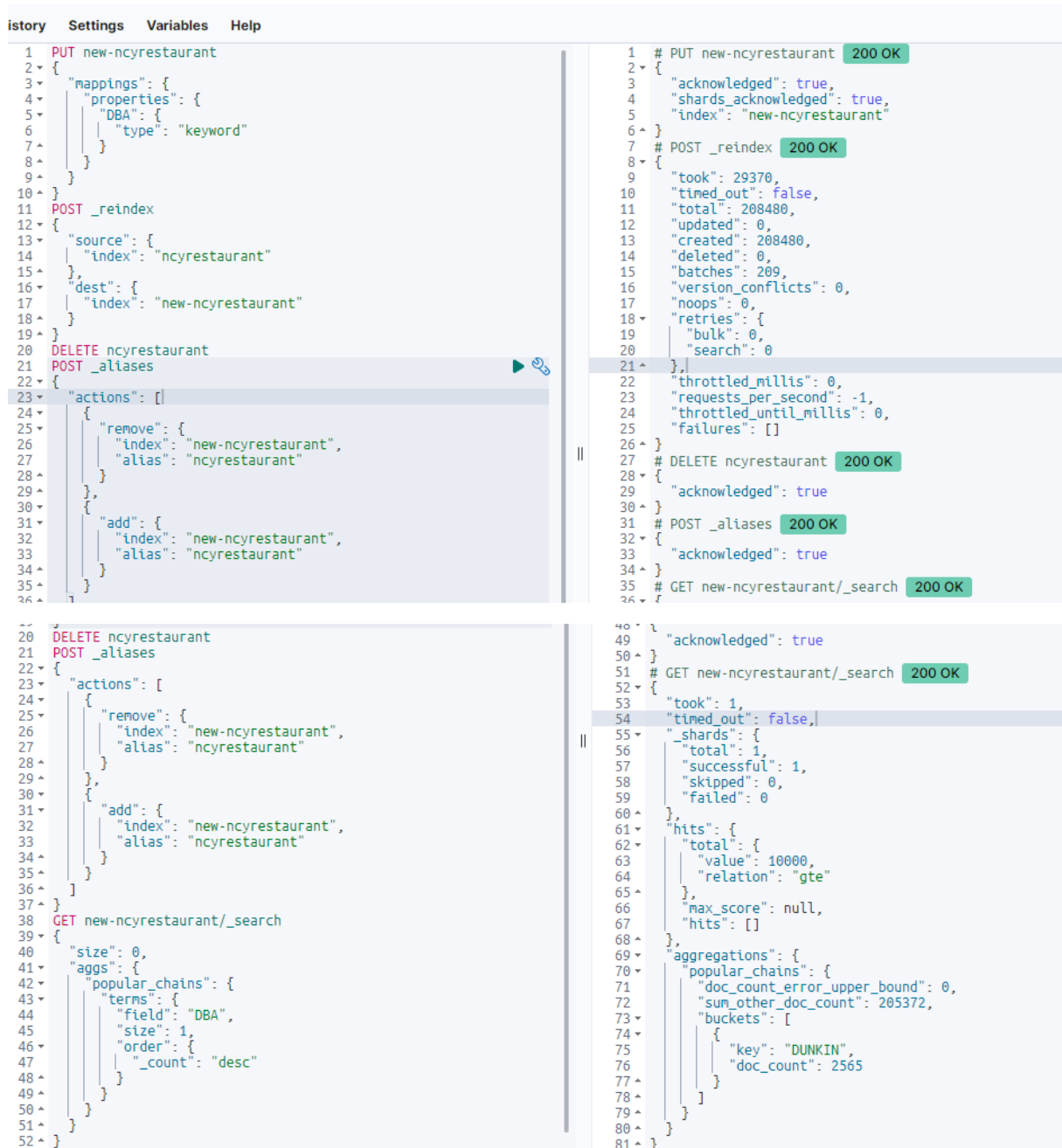
```
1 PUT ncyrestaurant/_mapping
2 {
3   "properties": {
4     "VIOLATION DESCRIPTION": {
5       "type": "text",
6       "fields": {
7         "keyword": {
8           "type": "keyword"
9         }
10      }
11    }
12  }
13 }
14
15 GET ncyrestaurant/_search
16 {
17   "source": ["VIOLATION CODE", "VIOLATION DESCRIPTION"],
18   "size": 0,
19   "aggs": {
20     "top_violations": {
21       "terms": {
22         "field": "VIOLATION DESCRIPTION.keyword",
23         "size": 5,
24         "order": {
25           "_count": "desc"
26         }
27       }
28     }
29   }
30 }
31 }
```

```
1 PUT ncyrestaurant/_mapping 200 OK
2 {
3   "acknowledged": true
4 }
5 GET ncyrestaurant/_search 200 OK
6 {
7   "took": 75,
8   "timed_out": false,
9   "shards": {
10     "total": 1,
11     "successful": 1,
12     "skipped": 0,
13     "failed": 0
14   },
15   "hits": {
16     "total": {
17       "value": 10000,
18       "relation": "gte"
19     },
20     "max_score": null,
21     "hits": []
22   },
23   "aggregations": {
24     "top_violations": {
25       "doc_count_error_upper_bound": 0,
26       "sum_other_doc_count": 121503,
27       "buckets": [
28         {
29           "key": "Non-food contact surface or equipment made of unacceptable material, not kept clean, or not properly sealed, raised, spaced or movable to allow accessibility for cleaning on all sides, above and underneath the unit.",
30           "doc_count": 16214
31         },
32         {
33           "key": "Food contact surface not properly washed, rinsed and sanitized after each use and following any activity when contamination may have occurred.",
34           "doc_count": 14039
35         },
36         {
37           "key": "Establishment is not free of harborage or conditions conducive to rodents, insects or other pests.",
38           "doc_count": 12957
39         },
40         {
41           "key": "Facility not vermin proof. Harborage or conditions conducive to attracting vermin to the premises and/or allowing vermin to exist.",
42           "doc_count": 9671
43         },
44         {
45           "key": "Evidence of mice or live mice in establishment's food or non-food areas.",
46           "doc_count": 7602
47         }
48       ]
49     }
50   }
51 }
```

Figure 14 : Les violations les plus courantes (Top 5)

Q11 : Quelle chaîne de restaurants est la plus populaire ?

Cette série de requêtes crée un nouvel index avec le champ "DBA" en tant que type "keyword", réindexe les données de l'ancien index vers le nouvel index, supprime l'ancien index et ajoute un alias pour le nouvel index. Enfin, elle utilise une agrégation "terms" pour déterminer la chaîne de restaurants la plus populaire en fonction du champ "DBA".

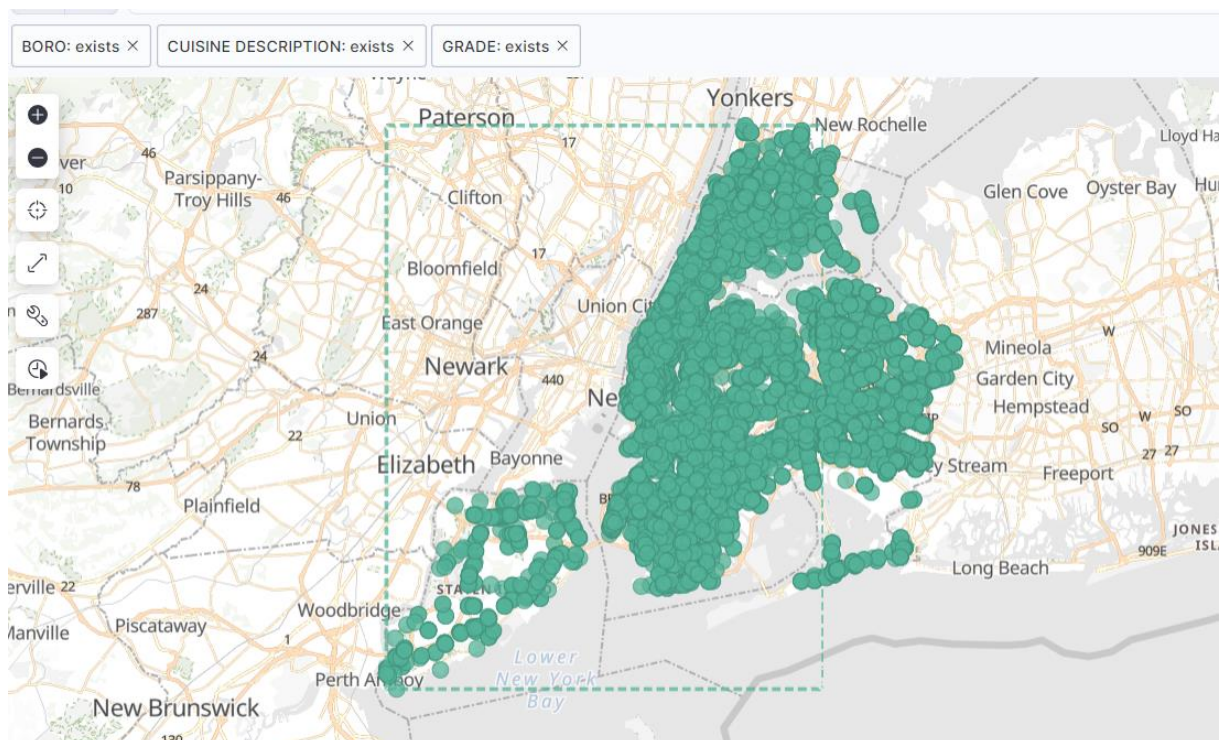


```
1 PUT new-ncyrestaurant
2 {
3   "mappings": {
4     "properties": {
5       "DBA": {
6         "type": "keyword"
7       }
8     }
9   }
10 }
11 POST _reindex
12 {
13   "source": {
14     "index": "ncyrestaurant"
15   },
16   "dest": {
17     "index": "new-ncyrestaurant"
18   }
19 }
20 DELETE ncyrestaurant
21 POST _aliases
22 {
23   "actions": [
24     {
25       "remove": {
26         "index": "new-ncyrestaurant",
27         "alias": "ncyrestaurant"
28       },
29     },
30     {
31       "add": {
32         "index": "new-ncyrestaurant",
33         "alias": "ncyrestaurant"
34       }
35     }
36   ]
37 }
38 GET new-ncyrestaurant/_search
39 {
40   "size": 0,
41   "aggs": {
42     "popular_chains": {
43       "terms": {
44         "field": "DBA",
45         "size": 1,
46         "order": {
47           "_count": "desc"
48         }
49       }
50     }
51   }
52 }
```

```
1 # PUT new-ncyrestaurant 200 OK
2 {
3   "acknowledged": true,
4   "shards_acknowledged": true,
5   "index": "new-ncyrestaurant"
6 }
7 # POST _reindex 200 OK
8 {
9   "took": 29370,
10  "timed_out": false,
11  "total": 208480,
12  "updated": 0,
13  "created": 208480,
14  "deleted": 0,
15  "batches": 209,
16  "version_conflicts": 0,
17  "noops": 0,
18  "retries": {
19    "bulk": 0,
20    "search": 0
21  },
22  "throttled_millis": 0,
23  "requests_per_second": -1,
24  "throttled_until_millis": 0,
25  "failures": []
26 }
27 # DELETE ncyrestaurant 200 OK
28 {
29   "acknowledged": true
30 }
31 # POST _aliases 200 OK
32 {
33   "acknowledged": true
34 }
35 # GET new-ncyrestaurant/_search 200 OK
36 {
37   "took": 1,
38   "timed_out": false,
39   "_shards": {
40     "total": 1,
41     "successful": 1,
42     "skipped": 0,
43     "failed": 0
44   },
45   "hits": {
46     "total": {
47       "value": 10000,
48       "relation": "gte"
49     },
50     "max_score": null,
51     "hits": []
52   },
53   "aggregations": {
54     "popular_chains": {
55       "doc_count_error_upper_bound": 0,
56       "sum_other_doc_count": 205372,
57       "buckets": [
58         {
59           "key": "DUNKIN",
60           "doc_count": 2565
61         }
62       ]
63     }
64   }
65 }
```

Figure 14 : La chaîne de restaurants la plus populaire

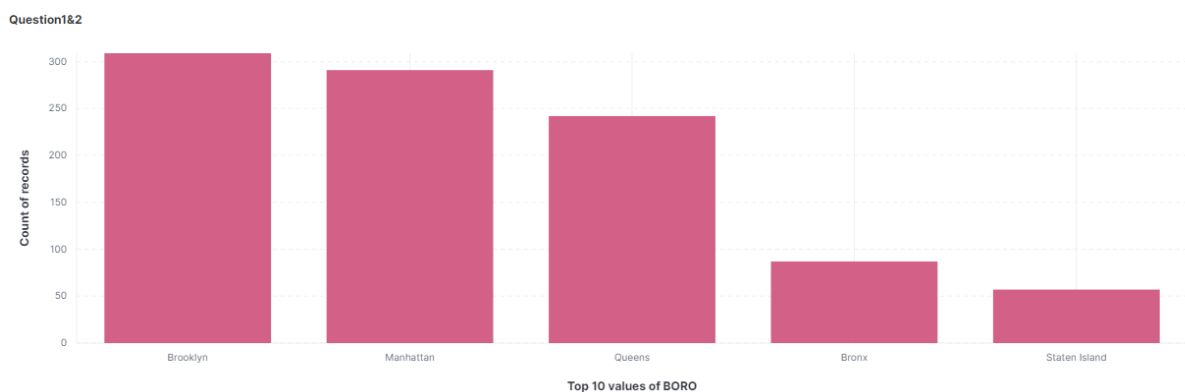
Réponse à 3ème partie de l'examen :



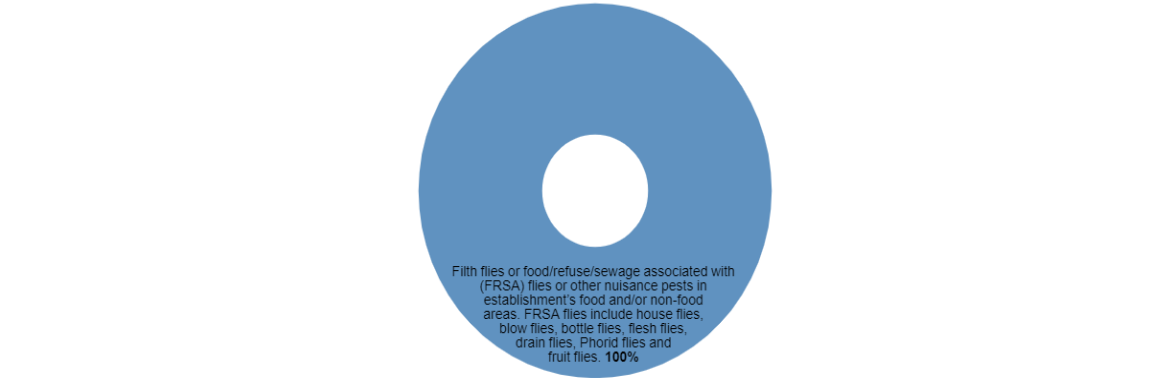
Kibana offre une variété de filtres qui peuvent être utilisés pour affiner les résultats de recherche. Par exemple, le filtre 'exists' vérifie si un champ spécifique est présent dans un document. Cependant, si vous souhaitez filtrer les résultats en fonction d'une valeur spécifique d'un champ, vous pouvez utiliser des filtres tels que is, is not ...

Visualisation pour les questions de la première partie :

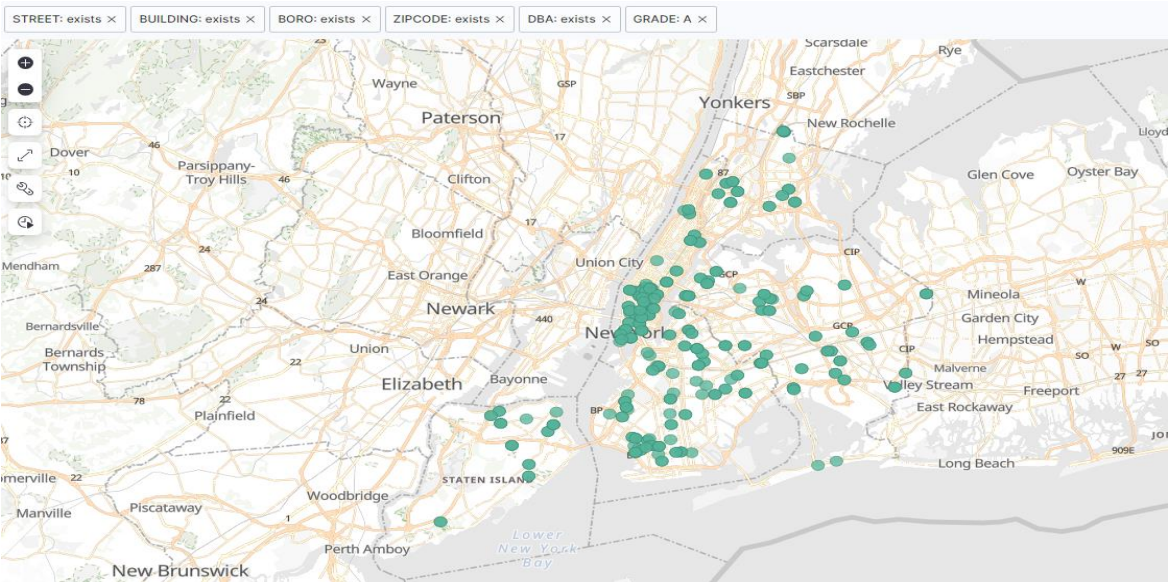
Dans le cadre de ce rapport, j'ai choisi de ne pas visualiser certaines questions car il ne m'a pas semblé pertinent de créer des graphiques à partir d'une seule donnée. Cependant, vous trouverez certaines présentations avec une donnée unique pour illustrer la procédure à suivre pour arriver à la visualisation.



Question3



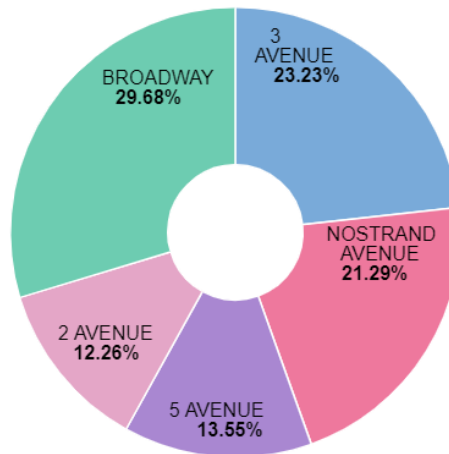
Question4 :



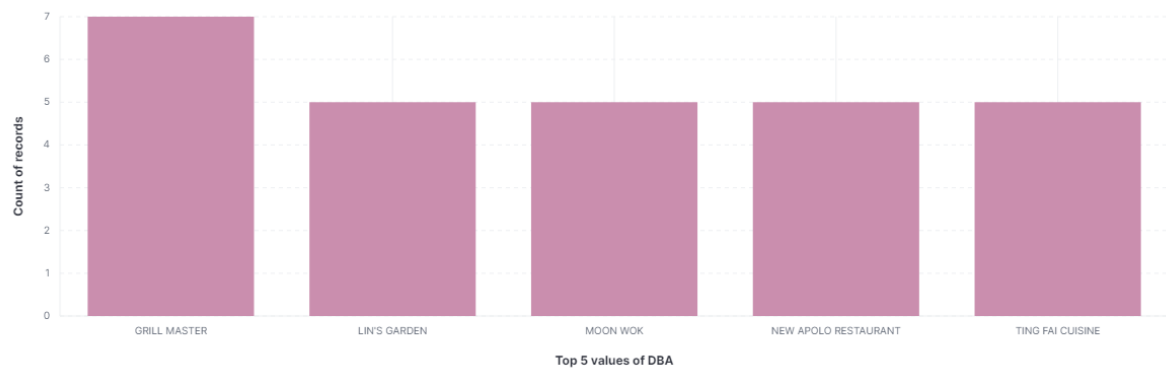
Question5



Question5/Parquartier



Question7



Question10



Question11

