

PREGLED IANALIZA PODATAKA PROIZVODA SEPHORE

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OPIŠ SKUPA PODATAKA

- <https://www.kaggle.com/datasets/nadyinky/sephora-products-and-skincare-reviews>

- Ovaj skup podataka je prikupljen preko Python scraper-a u martu 2023.
- Sadrži:
 - informacije o svim kozmetičkim proizvodima iz Sephora online prodavnice (preko 8.000), uključujući nazive proizvoda i brendova, cene, sastojke, ocene i sve karakteristike
 - korisničke recenzije (preko 1 milion na preko 2.000 proizvoda) svih proizvoda uključujući i izgled korisnika i njihove ocene

- product_id - jedinstveni identifikator proizvoda u Sephor
- product_name - naziv proizvoda
- brand_id - jedinstveni identifikator Brenda u Sephori
- brand_name - naziv brenda
- loves_count - broj ljudi koji su proizvod stavili u favorite
- rating - prosečna ocena proizvoda
- reviews - broj ljudi koji su ostavili komentar na proizvod
- ingredients - sastojci proizvoda
- price_usd - cena proizvoda
- limited_edition - da li je proizvod limitirane serije
- new - da li je proizvod nov
- online_only - da li se prodaje samo online
- highlights - lista tagova koji opisuju proizvod
- primary_category - primarna kategorija proizvoda
- secondary_category - sekundarna kategorija proizvoda
- tertiary_category - tercijalna kategorija proizvoda

SEMANTIKA KOLONA – PODACI O PROIZVODIMA

- rating - ocena koju je korisnik ostavio za dati proizvod
- is_recommended - da li korisnik preporučuje dati proizvod
- total_neg_feedback_count - broj negativnih komentara
- total_pos_feedback_count - broj pozitivnih komentara
- submission_time - vreme ostavljanja komentara
- review_text - komentar
- skin_tone - boja kože korisnika koji je ostavio komentar
- eye_color - boja očiju osobe koja je ostavila komentar
- skin_type - tip kože korisnika koji je ostavio komentar
- hair_color - boja kose korisnika koji je ostavio komentar
- product_id - id proizvoda za koji je ostavljen komentar

SEMANTIKA KOLONA – PODACI O FEEDBACK-U

Product

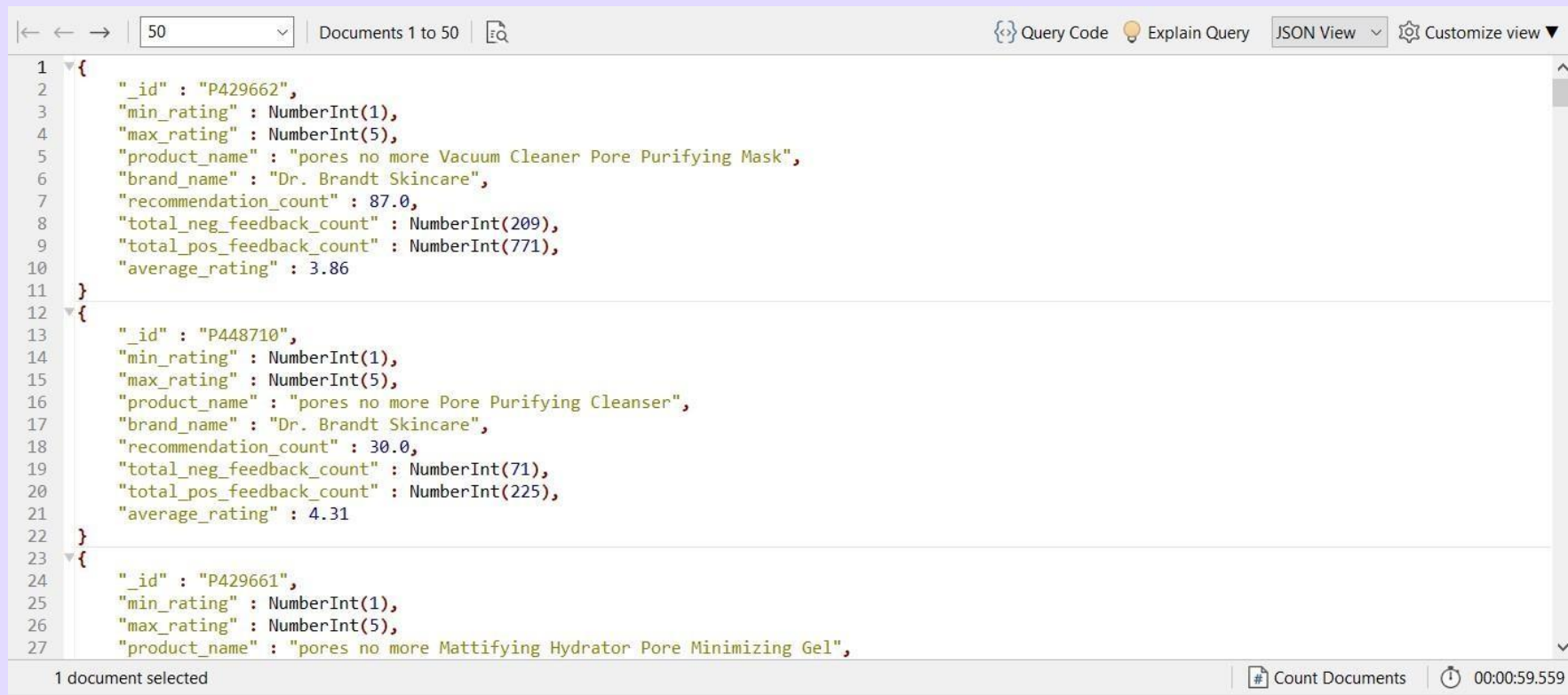
Key	Value	Type
▼ {} (5) { _id : P473658 }	{ 16 fields }	Document
{}_id	P473658	String
{}_brand_id	6342	String
{}_brand_name	19-69	String
> {} highlights	[3 elements]	Array
> {} ingredients	[12 elements]	Array
i32 limited_edition	0	Int32
i32 loves_count	2691	Int32
i32 new	0	Int32
i32 online_only	1	Int32
i23 price_usd	195.0	Double
{}_primary_category	Fragrance	String
{}_product_name	Purple Haze Eau de Parfum	String
{}_rating	3.2308	String
{}_reviews	13	String
{}_secondary_category	Women	String
{}_tertiary_category	Perfume	String

Feedback

Key	Value	Type
▼ (17) {_id : 33602438124}	{ 12 fields }	Document
"_id"	33602438124	String
"rating"	5	Int32
"is_recommended"	1.0	String
"total_neg_feedback_count"	0	Int32
"total_pos_feedback_count"	0	Int32
"submission_time"	2023-03-16T00:00:00.000Z	Date
"review_text"	i love how hydrating this makes my lips feel! perfect for an overnight lip mask or ju	String
"skin_tone"	lightMedium	String
"eye_color"	brown	String
"skin_type"	combination	String
"hair_color"	brown	String
"product_id"	P420652	String

Primeri agregacija

- Za svaki proizvod koji ima recenziju prikazati prosečnu ocenu, minimalnu ocenu i maksimalnu ocenu koju je dobio, broj pozitivnih i negativnih recenzija i koliko je puta bio preporučen od strane korisnika



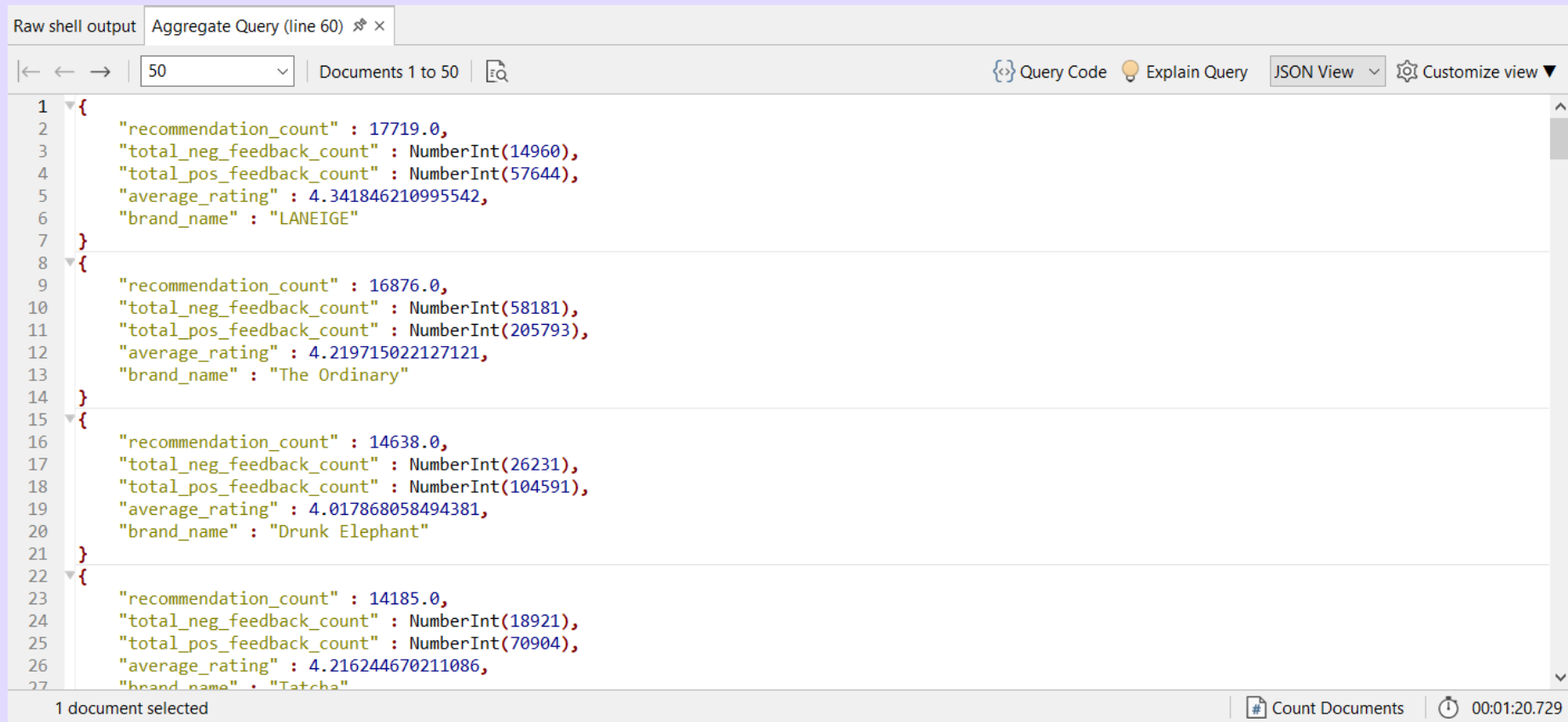
The screenshot shows a MongoDB query result in a web interface. The interface includes a top bar with navigation arrows, a document count of 50, and buttons for 'Query Code', 'Explain Query', 'JSON View', and 'Customize view'. The main area displays three JSON documents, each representing a product's aggregated data. The first document is for 'pores no more Vacuum Cleaner Pore Purifying Mask' with an average rating of 3.86. The second is for 'pores no more Pore Purifying Cleanser' with an average rating of 4.31. The third is for 'pores no more Mattifying Hydrator Pore Minimizing Gel'. The status bar at the bottom indicates '1 document selected' and shows a 'Count Documents' button with a timer at 00:00:59.559.

```
1 {
2   "_id" : "P429662",
3   "min_rating" : NumberInt(1),
4   "max_rating" : NumberInt(5),
5   "product_name" : "pores no more Vacuum Cleaner Pore Purifying Mask",
6   "brand_name" : "Dr. Brandt Skincare",
7   "recommendation_count" : 87.0,
8   "total_neg_feedback_count" : NumberInt(209),
9   "total_pos_feedback_count" : NumberInt(771),
10  "average_rating" : 3.86
11 }
12 {
13   "_id" : "P448710",
14   "min_rating" : NumberInt(1),
15   "max_rating" : NumberInt(5),
16   "product_name" : "pores no more Pore Purifying Cleanser",
17   "brand_name" : "Dr. Brandt Skincare",
18   "recommendation_count" : 30.0,
19   "total_neg_feedback_count" : NumberInt(71),
20   "total_pos_feedback_count" : NumberInt(225),
21   "average_rating" : 4.31
22 }
23 {
24   "_id" : "P429661",
25   "min_rating" : NumberInt(1),
26   "max_rating" : NumberInt(5),
27   "product_name" : "pores no more Mattifying Hydrator Pore Minimizing Gel",
```

1 document selected | Count Documents | 00:00:59.559

Primeri agregacija

- Za svaki brend čiji proizvodi imaju recenzije, izračunati koliko preporuka ukupno imaju njegovi proizvodi, prosečnu ocenu i ukupan broj pozitivnih i negativnih recenzija za sve njegove proizvode




```
1 {
2   "recommendation_count" : 17719.0,
3   "total_neg_feedback_count" : NumberInt(14960),
4   "total_pos_feedback_count" : NumberInt(57644),
5   "average_rating" : 4.341846210995542,
6   "brand_name" : "LANEIGE"
7 }
8 {
9   "recommendation_count" : 16876.0,
10  "total_neg_feedback_count" : NumberInt(58181),
11  "total_pos_feedback_count" : NumberInt(205793),
12  "average_rating" : 4.219715022127121,
13  "brand_name" : "The Ordinary"
14 }
15 {
16  "recommendation_count" : 14638.0,
17  "total_neg_feedback_count" : NumberInt(26231),
18  "total_pos_feedback_count" : NumberInt(104591),
19  "average_rating" : 4.017868058494381,
20  "brand_name" : "Drunk Elephant"
21 }
22 {
23  "recommendation_count" : 14185.0,
24  "total_neg_feedback_count" : NumberInt(18921),
25  "total_pos_feedback_count" : NumberInt(70904),
26  "average_rating" : 4.216244670211086,
27  "brand_name" : "Tatcha"
28 }
```

1 document selected | Count Documents | 00:01:20.729

Primeri agregacija

- Za svaki brend koji ima recenzije svojih proizvoda pronaći profil osobe koja najčešće predlaže njegove proizvode



```
1 {
2   "brand_name" : "Algenist",
3   "profiles" : [
4     {
5       "skin_tone" : "light",
6       "skin_type" : "combination",
7       "hair_color" : "brown",
8       "positive_reviews" : 190.0
9     }
10  ]
11 }
12 {
13   "brand_name" : "Alpha-H",
14   "profiles" : [
15     {
16       "skin_tone" : "lightMedium",
17       "skin_type" : "combination",
18       "hair_color" : "brown",
19       "positive_reviews" : 29.0
20     }
21  ]
22 }
23 {
24   "brand_name" : "Anastasia Beverly Hills",
25   "profiles" : [
26     {
27       "skin_tone" : "fair",
```

1 document selected | Count Documents | 00:00:41.060

Primeri agregacija

- Pronaći najbolji proizvod za svaki brend na osnovu prosečne ocene i ukupnog broja preporuka korisnika u recenzijama



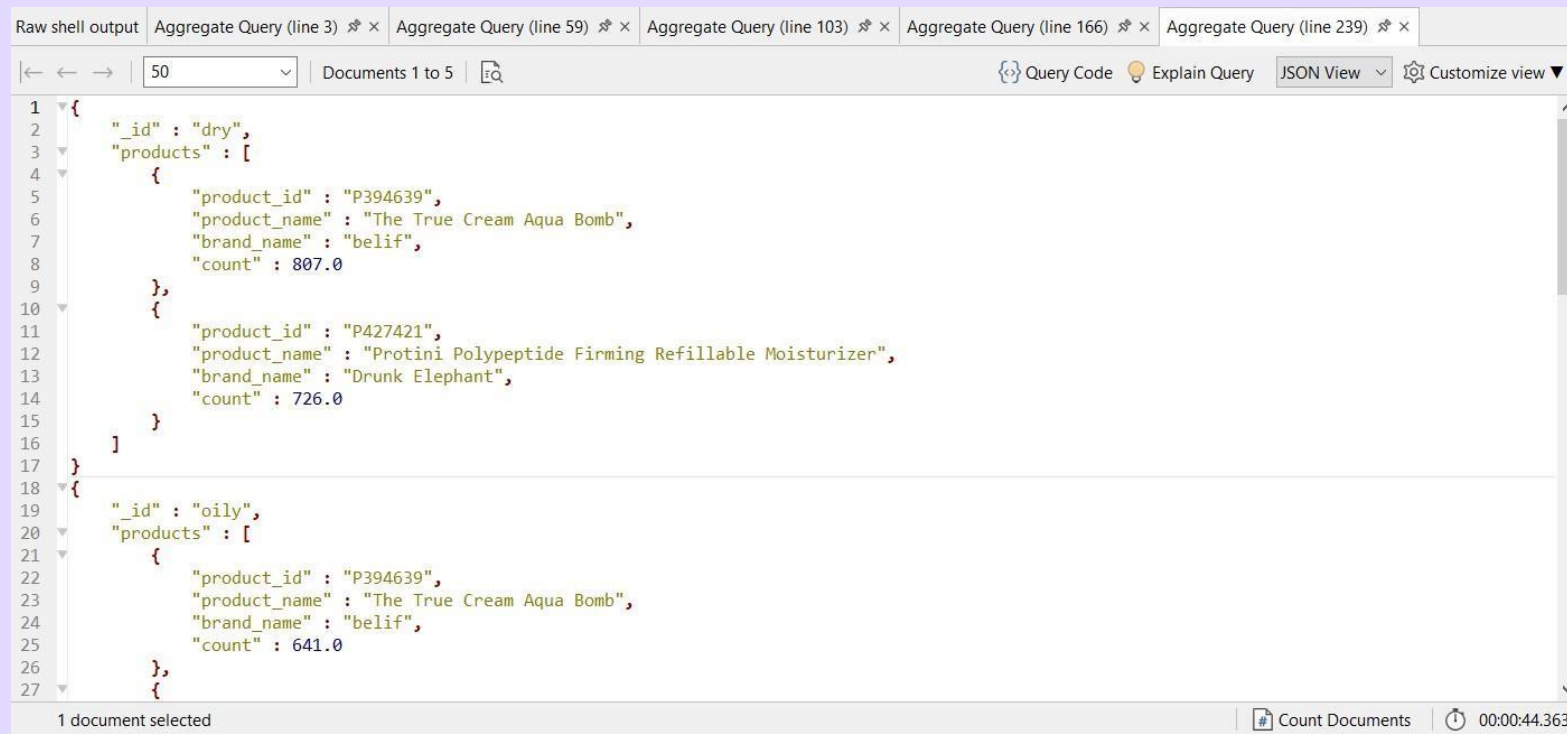
The screenshot shows a MongoDB query interface with a results pane displaying three documents. The first document is for 'Algenist' with product ID 'P500716', a 5.0 average rating, and 5.0 total recommendations. The second document is for 'Alpha-H' with product ID 'P442537', a 5.0 average rating, and 9.0 total recommendations. The third document is partially visible for product ID 'P449150'. The interface includes a top bar with navigation controls, a document count of 50, and tabs for Query Code, Explain Query, JSON View, and Customize view. The bottom status bar shows '1 document selected', 'Count Documents', and a timer at 00:00:48.591.

```
1 {
2   "topProduct" : {
3     "productId" : "P500716",
4     "productName" : "10 Day Results Kit",
5     "primaryCategory" : "Skincare",
6     "secondaryCategory" : "Value & Gift Sets",
7     "tertiaryCategory" : "",
8     "avgRating" : 5.0,
9     "totalRecommendations" : 5.0
10  },
11  "brandName" : "Algenist"
12 }
13 {
14   "topProduct" : {
15     "productId" : "P442537",
16     "productName" : "Liquid Gold Firming Eye Cream",
17     "primaryCategory" : "Skincare",
18     "secondaryCategory" : "Eye Care",
19     "tertiaryCategory" : "Eye Creams & Treatments",
20     "avgRating" : 5.0,
21     "totalRecommendations" : 9.0
22  },
23  "brandName" : "Alpha-H"
24 }
25 {
26   "topProduct" : {
27     "productId" : "P449150",
```

1 document selected | Count Documents | 00:00:48.591

Primeri agregacija

- Za svaki tip kože korisnika u bazi (dry, combination, sensitive, normal) pronaći po 2 proizvoda koja spadaju u "Moisturizers" kategoriju (tertiary_category) a koja su ljudi sa tim tipom kože najviše preporučivali u recenzijama



The screenshot shows a MongoDB query results interface. The top bar indicates the current view is 'JSON View'. The interface displays two documents, one for skin type 'dry' and one for 'oily'. Each document contains an array of product recommendations with their respective counts.

```
1 {
2   "_id": "dry",
3   "products": [
4     {
5       "product_id": "P394639",
6       "product_name": "The True Cream Aqua Bomb",
7       "brand_name": "belif",
8       "count": 807.0
9     },
10    {
11      "product_id": "P427421",
12      "product_name": "Protini Polypeptide Firming Refillable Moisturizer",
13      "brand_name": "Drunk Elephant",
14      "count": 726.0
15    }
16  ]
17 }
18 {
19   "_id": "oily",
20   "products": [
21     {
22       "product_id": "P394639",
23       "product_name": "The True Cream Aqua Bomb",
24       "brand_name": "belif",
25       "count": 641.0
26     },
27     {
28       "product_id": "P427421",
29       "product_name": "Protini Polypeptide Firming Refillable Moisturizer",
30       "brand_name": "Drunk Elephant",
31       "count": 726.0
32     }
33   ]
34 }
```

1 document selected | Count Documents | 00:00:44.363

Primeri agregacija

- Za svoju boje kose, boju očiju i tip kože naći proizvode sa maksimalnom vrednošću broja korisnika koji su te proizvode, iz tih kategorija, u toj kombinaciji, stavili u favorite.

```
{
  "max_count" : 6319.0,
  "brand_id" : "1254",
  "hair_color" : "",
  "skin_type" : "",
  "eye_color" : ""
}
{
  "max_count" : 5735.0,
  "brand_id" : "1254",
  "hair_color" : "",
  "skin_type" : "combination",
  "eye_color" : ""
}
{
  "max_count" : 2892.0,
  "brand_id" : "6234",
  "hair_color" : "brown",
  "skin_type" : "combination",
  "eye_color" : "brown"
}
```

document selected

Activate Windows
Go to Settings to activate Windows.

Count Documents 00:02:51.778

Primeri agregacija

- Nalaženje prosečne ocene iz svih feedback-ova za 2022-u godinu, proizvoda koji su preporučeni i nalaze se u trećoj kategoriji i njihovih brand-ova.

```
"brands" : [  
  {  
    "brandId" : "6329",  
    "brandName" : "FaceGym",  
    "avgRating" : 4.785714285714286  
  },  
  {  
    "brandId" : "3902",  
    "brandName" : "SEPHORA COLLECTION",  
    "avgRating" : 4.75  
  },  
  {  
    "brandId" : "6482",  
    "brandName" : "CANOPY",  
    "avgRating" : 4.891304347826087  
  },  
  {  
    "brandId" : "6001",  
    "brandName" : "NuFACE",  
    "avgRating" : 5.0  
  },  
  {  
    "brandId" : "6358",  
    "brandName" : "NuFACE",  
    "avgRating" : 4.75  
  }  
]
```

document selected

Activate Windows
Go to Settings to activate Windows.

Count Documents | 00:00:27.35

Primeri agregacija

- Nalaženje profila svake osobe (boja kože, tip kože, boja očiju) koja je ostavila maksimalan broj pozitivnih feedback-ova za svaki produkt i svaki brand iz svih kategorija

```
"products" : [  
  {  
    "product_id" : "P385320",  
    "brands" : [  
      {  
        "brand_name" : "NuFACE",  
        "profiles" : {  
          "skin_type" : "oily",  
          "eye_color" : "",  
          "hair_color" : "",  
          "total_pos_feedback_count" : NumberInt(298)  
        }  
      }  
    ]  
  },  
  {  
    "product_id" : "P389097",  
    "brands" : [  
      {  
        "brand_name" : "HUM Nutrition",  
        "profiles" : {  
          "skin_type" : "oily",  
          "eye_color" : "",  
          "hair_color" : "",  
          "total_pos_feedback_count" : NumberInt(23)  
        }  
      }  
    ]  
  }  
]
```

document selected

Activate Windows
Go to Settings to activate Windows.

Count Documents 00:11:01.661

Primeri agregacija

- Nalaženje brenda sa najjeftinijim proizvodima i broj pozitivnih feedback-ova iz tercijalne kategorije za tipove i boje kože

```
{
  "min_price" : 3.0,
  "brands" : [
    "SEPHORA COLLECTION",
    "BeautyBio",
    "Koh Gen Do"
  ],
  "tertiary_category" : "Face Wipes",
  "skin_tone" : "light",
  "skin_type" : "dry"
}
{
  "min_price" : 3.0,
  "brands" : [
    "Koh Gen Do",
    "BeautyBio",
    "Shiseido",
    "SEPHORA COLLECTION"
  ],
  "tertiary_category" : "Face Wipes",
  "skin_tone" : "lightMedium",
  "skin_type" : "oily"
}
{
  "min_price" : 3.0,
  "brands" : [
    "SEPHORA COLLECTION",
    "Koh Gen Do",
```

document selected

Activate Windows
Go to Settings to activate Windows.

Count Documents 00:05:22.789

Primeri agregacija

- Nalaženje proizvoda iz svih kategorija sa maksimalnom cenom za svaku ocenu

```
{
  "rating" : "3.0417",
  "brand" : "tarte",
  "product" : {
    "_id" : "P457468",
    "brand_id" : "5648",
    "brand_name" : "tarte",
    "highlights" : [
      ""
    ],
    "ingredients" : [
      "Water/Aqua/Eau",
      " Propylene Glycol",
      " Dihydroxyacetone",
      " PEG-6 Caprylic/Capric Glycerides",
      " Dihydroxypropyl PEG-5 Linoleammonium Chloride",
      " PEG-7 Glyceryl Cocoate",
      " Sodium Lauroyl Sarcosinate",
      " Hamamelis Virginiana (Witch Hazel) Bark/Leaf/Twig Extract",
      " Phenoxyethanol",
      " Caprylyl Glycol",
      " Potassium Sorbate",
      " Hexylene Glycol",
      " Ethoxydiglycol",
      " Erythrulose",
      " Glycerin"
    ]
  }
}
```

document selected

Activate Windows
Go to Settings to activate Windows.

Count Documents | 00:03:02.711


```
db.product_with_feedbacks.createIndex({ "brand_name": 1 });
db.product_with_feedbacks.createIndex({ "_id": 1 });
db.product_with_feedbacks.createIndex({ "feedback.rating": 1 });
db.product_with_feedbacks.createIndex({ "tertiary_category": 1 });
```

```
db.product_info.aggregate([
  {
    $lookup: {
      from: "feedback",
      localField: "_id",
      foreignField: "product_id",
      as: "feedbacks"
    }
  },
  {
    $out: "product_with_feedbacks"
  }
])
```

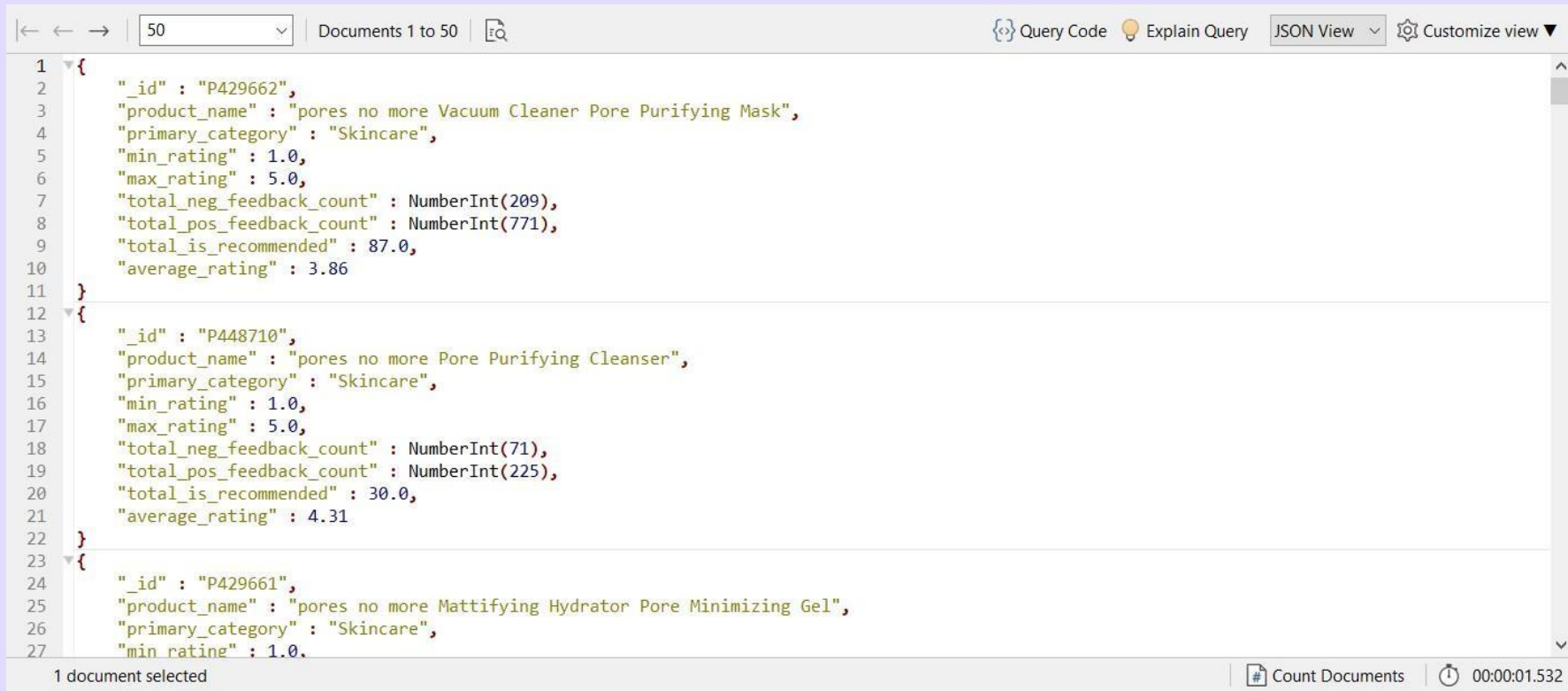
Transformacija baze

Product with feedback

Key	Value	Type
▼ (17) {_id : 33602438124}	{ 12 fields }	Document
"_id"	33602438124	String
"rating"	5	Int32
"is_recommended"	1.0	String
"total_neg_feedback_count"	0	Int32
"total_pos_feedback_count"	0	Int32
"submission_time"	2023-03-16T00:00:00.000Z	Date
"review_text"	i love how hydrating this makes my lips feel! perfect for an overnight lip mask or ju	String
"skin_tone"	lightMedium	String
"eye_color"	brown	String
"skin_type"	combination	String
"hair_color"	brown	String
"product_id"	P420652	String

Primeri optimizovanih agregacija

- Za svaki proizvod koji ima recenziju prikazati prosečnu ocenu, minimalnu ocenu i maksimalnu ocenu koju je dobio, broj pozitivnih i negativnih recenzija i koliko je puta bio preporučen od strane korisnika



```
1 {
2   "_id" : "P429662",
3   "product_name" : "pores no more Vacuum Cleaner Pore Purifying Mask",
4   "primary_category" : "Skincare",
5   "min_rating" : 1.0,
6   "max_rating" : 5.0,
7   "total_neg_feedback_count" : NumberInt(209),
8   "total_pos_feedback_count" : NumberInt(771),
9   "total_is_recommended" : 87.0,
10  "average_rating" : 3.86
11 }
12 {
13   "_id" : "P448710",
14   "product_name" : "pores no more Pore Purifying Cleanser",
15   "primary_category" : "Skincare",
16   "min_rating" : 1.0,
17   "max_rating" : 5.0,
18   "total_neg_feedback_count" : NumberInt(71),
19   "total_pos_feedback_count" : NumberInt(225),
20   "total_is_recommended" : 30.0,
21   "average_rating" : 4.31
22 }
23 {
24   "_id" : "P429661",
25   "product_name" : "pores no more Mattifying Hydrator Pore Minimizing Gel",
26   "primary_category" : "Skincare",
27   "min_rating" : 1.0,
```

1 document selected | Count Documents | 00:00:01.532

Primeri optimizovanih agregacija

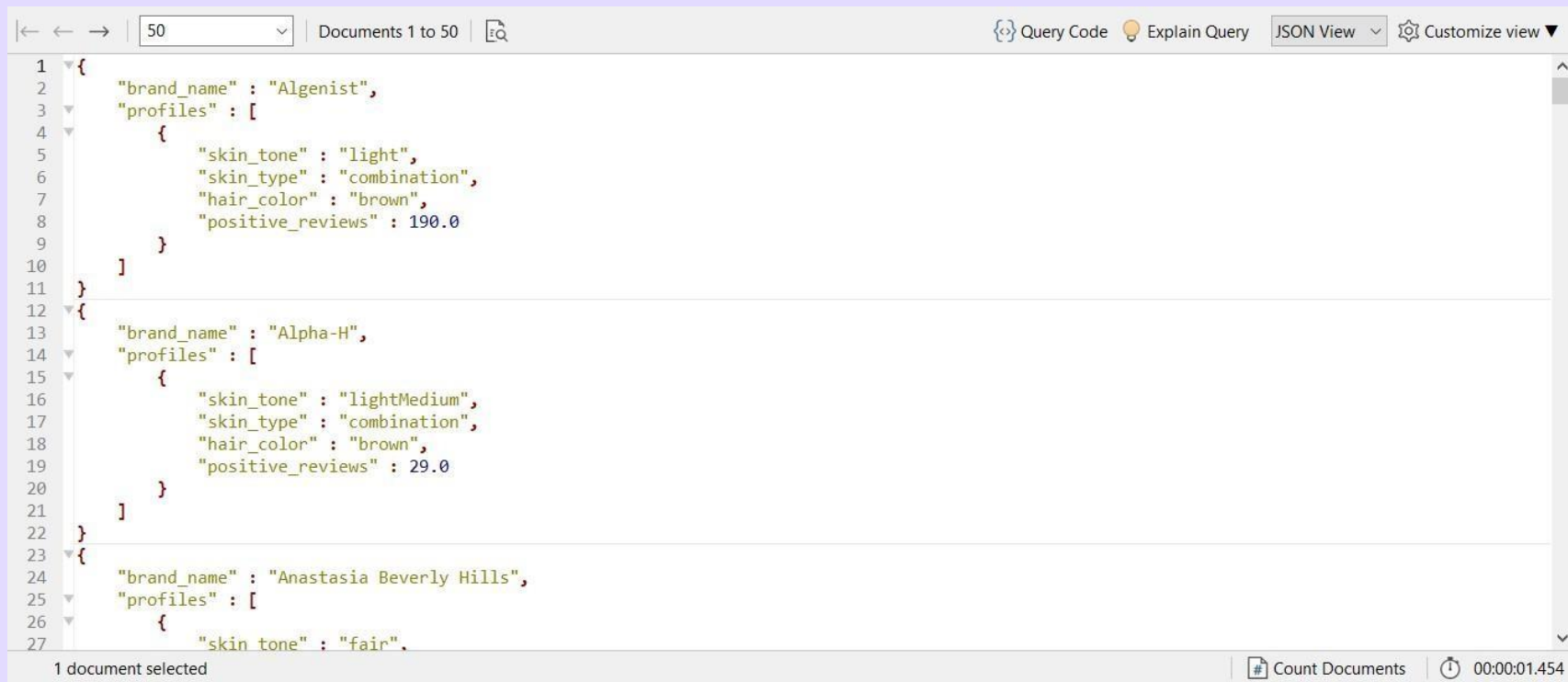
- Za svaki brend čiji proizvodi imaju recenzije, izračunati koliko preporuka ukupno imaju njegovi proizvodi, prosečnu ocenu i ukupan broj pozitivnih i negativnih recenzija za sve njegove proizvode

```
1 {
2   "recommendation_count" : 17719.0,
3   "total_neg_feedback_count" : NumberInt(14960),
4   "total_pos_feedback_count" : NumberInt(57644),
5   "average_rating" : 4.341846210995542,
6   "brand_name" : "LANEIGE"
7 }
8 {
9   "recommendation_count" : 16876.0,
10  "total_neg_feedback_count" : NumberInt(58181),
11  "total_pos_feedback_count" : NumberInt(205793),
12  "average_rating" : 4.219715022127121,
13  "brand_name" : "The Ordinary"
14 }
15 {
16  "recommendation_count" : 14638.0,
17  "total_neg_feedback_count" : NumberInt(26231),
18  "total_pos_feedback_count" : NumberInt(104591),
19  "average_rating" : 4.017868058494381,
20  "brand_name" : "Drunk Elephant"
21 }
22 {
23  "recommendation_count" : 14185.0,
24  "total_neg_feedback_count" : NumberInt(18921),
25  "total_pos_feedback_count" : NumberInt(70904),
26  "average_rating" : 4.216244670211086,
27  "brand_name" : "Tatcha"
```

1 document selected | Count Documents | 00:00:01.340

Primeri optimizovanih agregacija

- Za svaki brend koji ima recenzije svojih proizvoda pronaći profil osobe koja najčešće predlaže njegove proizvode

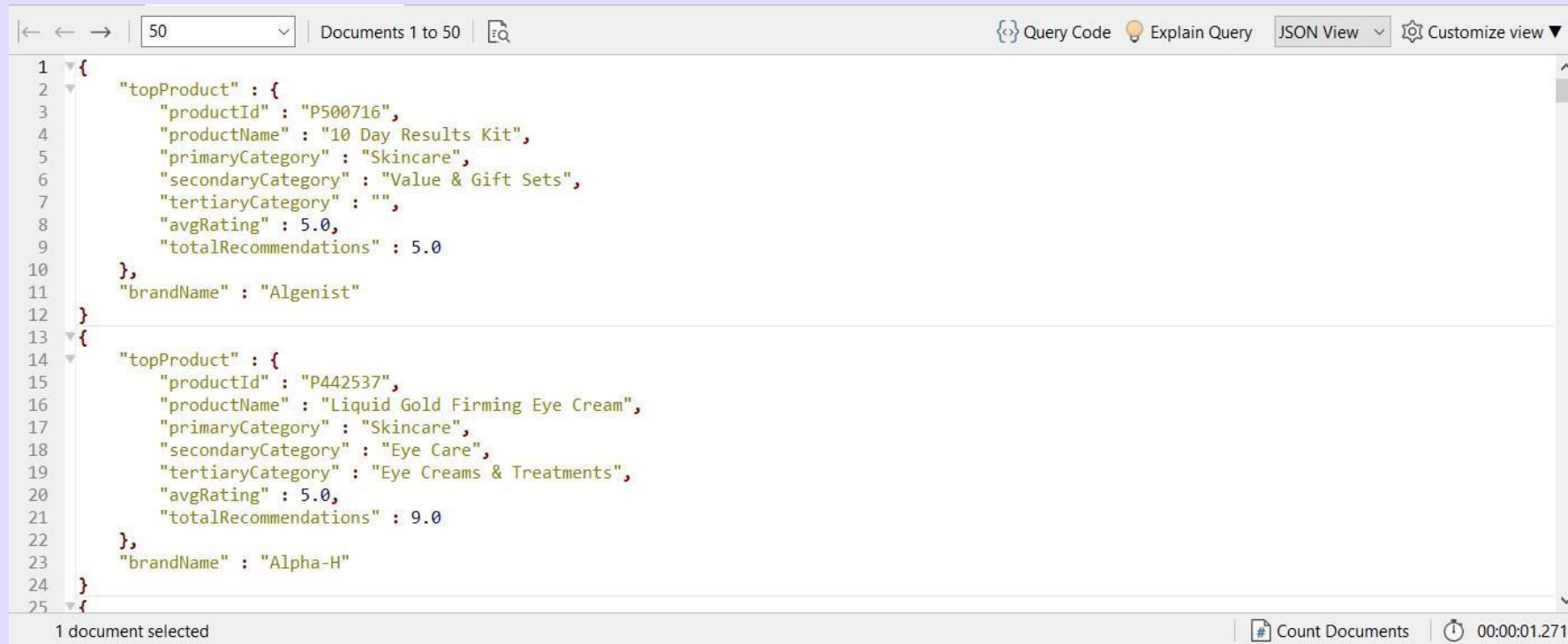


```
1 {
2   "brand_name" : "Algenist",
3   "profiles" : [
4     {
5       "skin_tone" : "light",
6       "skin_type" : "combination",
7       "hair_color" : "brown",
8       "positive_reviews" : 190.0
9     }
10  ]
11 }
12 {
13   "brand_name" : "Alpha-H",
14   "profiles" : [
15     {
16       "skin_tone" : "lightMedium",
17       "skin_type" : "combination",
18       "hair_color" : "brown",
19       "positive_reviews" : 29.0
20     }
21  ]
22 }
23 {
24   "brand_name" : "Anastasia Beverly Hills",
25   "profiles" : [
26     {
27       "skin_tone" : "fair",
```

1 document selected | Count Documents | 00:00:01.454

Primeri optimizovanih agregacija

- Pronaći najbolji proizvod za svaki brend na osnovu prosečne ocene i ukupnog broja preporuka korisnika u recenzijama



```
1 {
2   "topProduct" : {
3     "productId" : "P500716",
4     "productName" : "10 Day Results Kit",
5     "primaryCategory" : "Skincare",
6     "secondaryCategory" : "Value & Gift Sets",
7     "tertiaryCategory" : "",
8     "avgRating" : 5.0,
9     "totalRecommendations" : 5.0
10  },
11  "brandName" : "Algenist"
12 }
13 {
14   "topProduct" : {
15     "productId" : "P442537",
16     "productName" : "Liquid Gold Firming Eye Cream",
17     "primaryCategory" : "Skincare",
18     "secondaryCategory" : "Eye Care",
19     "tertiaryCategory" : "Eye Creams & Treatments",
20     "avgRating" : 5.0,
21     "totalRecommendations" : 9.0
22  },
23  "brandName" : "Alpha-H"
24 }
25 }
```

1 document selected

Count Documents 00:00:01.271

Primeri optimizovanih agregacija

- Za svaki tip kože korisnika u bazi (dry, combination, sensitive, normal) pronaći po 2 proizvoda koja spadaju u "Moisturizers" kategoriju (tertiary_category) a koja su ljudi sa tim tipom kože najviše preporučivali u recenzijama



```
1 {
2   "_id" : "normal",
3   "products" : [
4     {
5       "product_id" : "P394639",
6       "product_name" : "The True Cream Aqua Bomb",
7       "brand_name" : "belif",
8       "count" : 628.0
9     },
10    {
11      "product_id" : "P427421",
12      "product_name" : "Protini Polypeptide Firming Refillable Moisturizer",
13      "brand_name" : "Drunk Elephant",
14      "count" : 482.0
15    }
16  ]
17 }
18 {
19   "_id" : "oily",
20   "products" : [
21     {
22       "product_id" : "P394639",
23       "product_name" : "The True Cream Aqua Bomb",
24       "brand_name" : "belif",
25       "count" : 641.0
26     },
27     {
28       "product_id" : "P427421",
29       "product_name" : "Protini Polypeptide Firming Refillable Moisturizer",
30       "brand_name" : "Drunk Elephant",
31       "count" : 482.0
32     }
33   ]
34 }
```

1 document selected

Count Documents 00:00:00.263

Primeri optimizovanih agregacija

- Za svoju boje kose, boju očiju i tip kože naći proizvode sa maksimalnom vrednošću broja korisnika koji su te proizvode, iz tih kategorija, u toj kombinaciji, stavili u favorite.

```
{
  "max_count" : 6319.0,
  "brand_id" : "1254",
  "hair_color" : "",
  "skin_type" : "",
  "eye_color" : ""
}
{
  "max_count" : 5735.0,
  "brand_id" : "1254",
  "hair_color" : "",
  "skin_type" : "combination",
  "eye_color" : ""
}
{
  "max_count" : 2892.0,
  "brand_id" : "6234",
  "hair_color" : "brown",
  "skin_type" : "combination",
  "eye_color" : "brown"
}
{
  "max_count" : 2430.0,
  "brand_id" : "6234",
  "hair_color" : "black",
  "skin_type" : "combination",
  "eye_color" : ""
}
```

document selected

Activate Windows
Go to Settings to activate Windows.

Count Documents 00:00:05.656

Primeri optimizovanih agregacija

- Nalaženje prosečne ocene iz svih feedback-ova za 2022-u godinu, proizvoda koji su preporučeni i nalaze se u trećoj kategoriji i njihovih brand-ova.

```
"brands" : [  
  {  
    "brandId" : "6309",  
    "brandName" : "goop",  
    "avgRating" : 4.714285714285714  
  },  
  {  
    "brandId" : "7017",  
    "brandName" : "iluminage",  
    "avgRating" : 4.8  
  },  
  {  
    "brandId" : "5668",  
    "brandName" : "Dr. Dennis Gross Skincare",  
    "avgRating" : 4.742857142857143  
  },  
  {  
    "brandId" : "6136",  
    "brandName" : "DERMAFLASH",  
    "avgRating" : 4.836601307189542  
  },  
  {  
    "brandId" : "6256",  
    "brandName" : "Mount Lai"  
  }  
]
```

current selected

Activate Windows
Go to Settings to activate Windows.

Count Documents 00:00:03.034

Primeri optimizovanih agregacija

- Nalaženje profila svake osobe (boja kože, tip kože, boja očiju) koja je ostavila maksimalan broj pozitivnih feedback-ova za svaki produkt i svaki brand iz svih kategorija

```
"products" : [
  {
    "product_id" : "P385320",
    "brands" : [
      {
        "brand_name" : "NuFACE",
        "profiles" : {
          "skin_color" : "",
          "skin_type" : "oily",
          "eye_color" : "",
          "hair_color" : "",
          "total_pos_feedback_count" : NumberInt(298)
        }
      }
    ]
  },
  {
    "product_id" : "P389097",
    "brands" : [
      {
        "brand_name" : "HUM Nutrition",
        "profiles" : {
          "skin_color" : "",
          "skin_type" : "oily",
          "eye_color" : ""
        }
      }
    ]
  }
]
```

document selected

Activate Windows
Go to Settings to activate Windows.

Count Documents | 00:00:00.076

Primeri optimizovanih agregacija

- Nalaženje brenda sa najjeftinijim proizvodima i broj pozitivnih feedback-ova iz tercijalne kategorije za tipove i boje kože

```
1 {
  "min_price" : 3.0,
  "total_pos_feedback" : NumberInt(104),
  "brands" : [
    "BeautyBio",
    "Koh Gen Do",
    "SEPHORA COLLECTION"
  ],
  "tertiary_category" : "Face Wipes",
  "skin_tone" : "light",
  "skin_type" : "dry"
}
{
  "min_price" : 3.0,
  "total_pos_feedback" : NumberInt(58),
  "brands" : [
    "SEPHORA COLLECTION",
    "Koh Gen Do",
    "BeautyBio",
    "Shiseido"
  ],
  "tertiary_category" : "Face Wipes",
  "skin_tone" : "lightMedium",
  "skin_type" : "oily"
}
{
  "min_price" : 3.0,
  "total_pos_feedback" : NumberInt(113),
  "brands" : [
    "SEPHORA COLLECTION",
    "Koh Gen Do",
    "BeautyBio",
    "Shiseido"
  ],
  "tertiary_category" : "Face Wipes",
  "skin_tone" : "lightMedium",
  "skin_type" : "oily"
}
```

document selected

Activate Windows
Go to Settings to activate Windows.

Count Documents | 00:00:02.317

Primeri optimizovanih agregacija

- Nalaženje proizvoda iz svih kategorija sa maksimalnom cenom za svaku ocenu

```
{
  "rating" : "3.0417",
  "brand" : "tarte",
  "product" : {
    "_id" : "P457468",
    "brand_id" : "5648",
    "brand_name" : "tarte",
    "highlights" : [
      ""
    ],
    "ingredients" : [
      "Water/Aqua/Eau",
      " Propylene Glycol",
      " Dihydroxyacetone",
      " PEG-6 Caprylic/Capric Glycerides",
      " Dihydroxypropyl PEG-5 Linoleammonium Chloride",
      " PEG-7 Glyceryl Cocoate",
      " Sodium Lauroyl Sarcosinate",
      " Hamamelis Virginiana (Witch Hazel) Bark/Leaf/Twig Extract",
      " Phenoxyethanol",
      " Caprylyl Glycol",
      " Potassium Sorbate",
      " Hexylene Glycol",
      " Ethoxydiglycol",
      " Erythrulose",
      " "
    ]
  }
}
```

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Activate Windows
Go to Settings to activate Windows.

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Optimizovano vreme izvršavanja

