

Fragrancenet

Total records = 27,388 (~5,100 fragrance products)

Web scraping Fields

Product Name

Product Type

Product Notes

Product Size

Product Price

Product Introducing Year

Product Usage

Review text

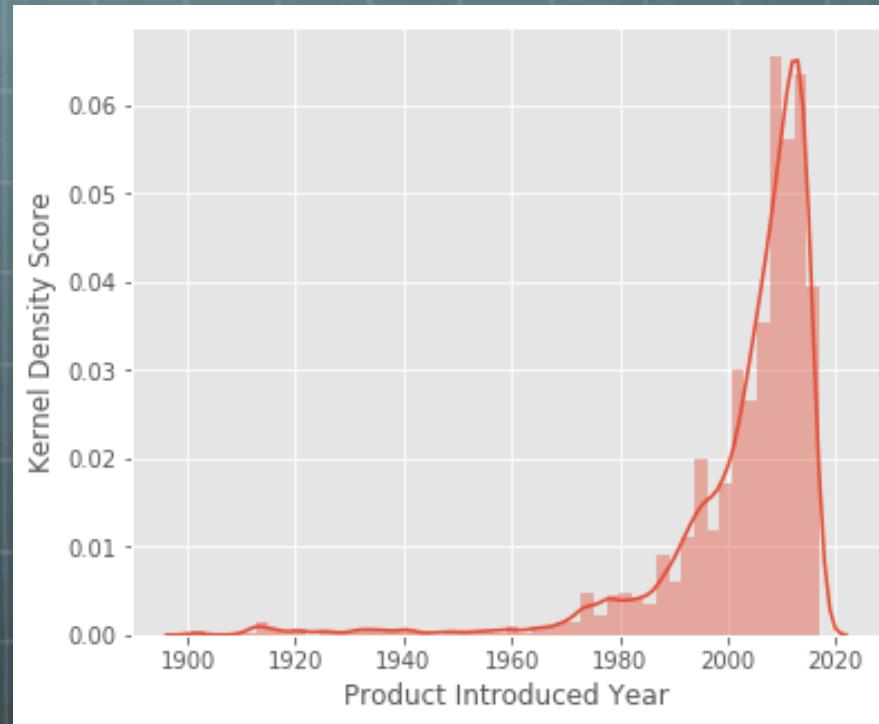
Review rate date

Review user name

Review helpful / Unhelpful

Review Rating stars (if any)

Product introduced year distribution



- Most of the fragrances were created in past 20 years from different design houses.

Trends related with prices, types, design houses

Top 20 most frequent fragrance types

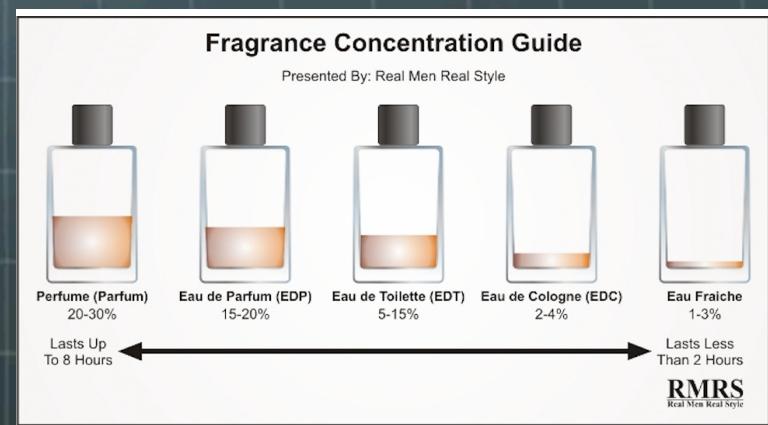
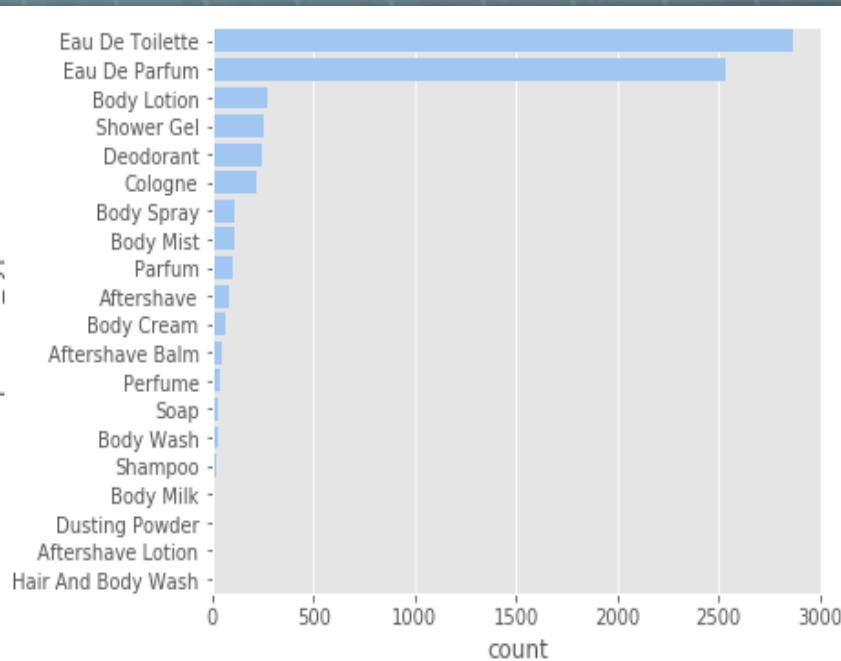
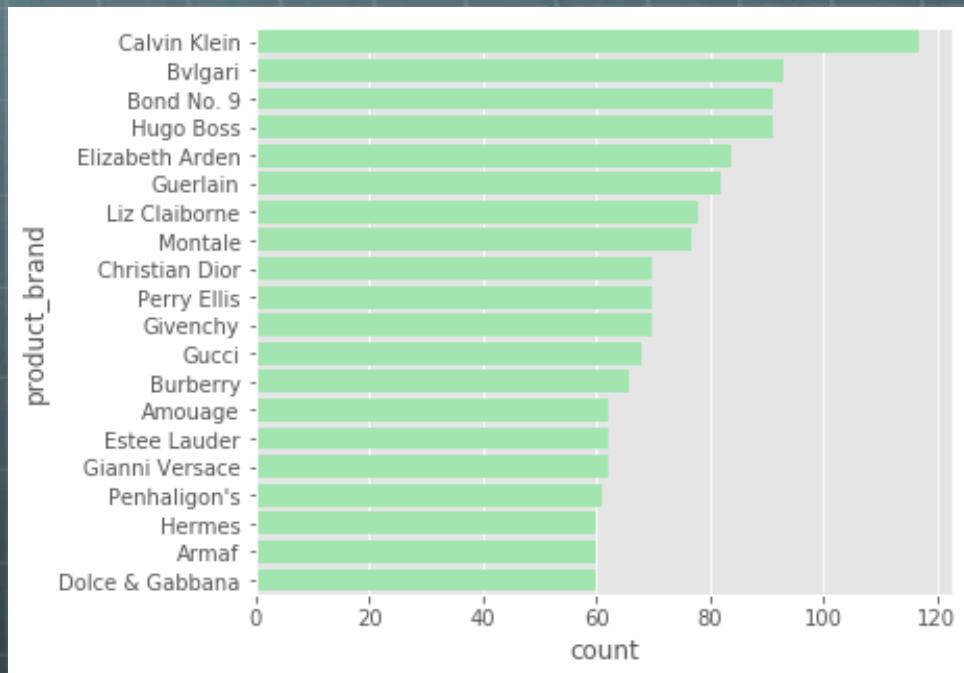


image source : <https://lifehacker.com/the-real-difference-between-perfume-cologne-toilette-1761347943>

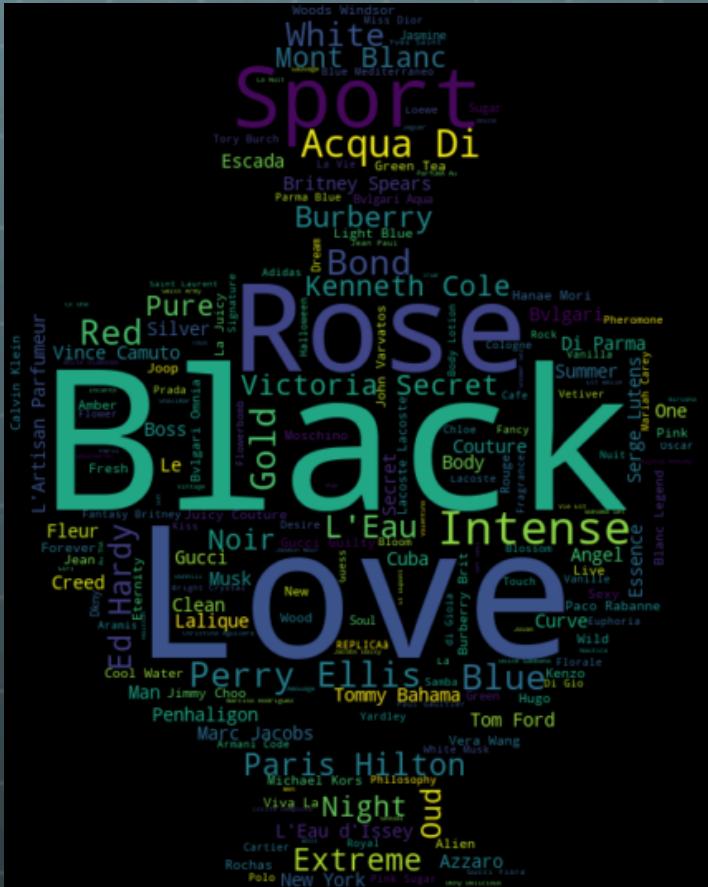
Trends related with prices, types, design houses

- Top 20 design houses introduced most fragrances



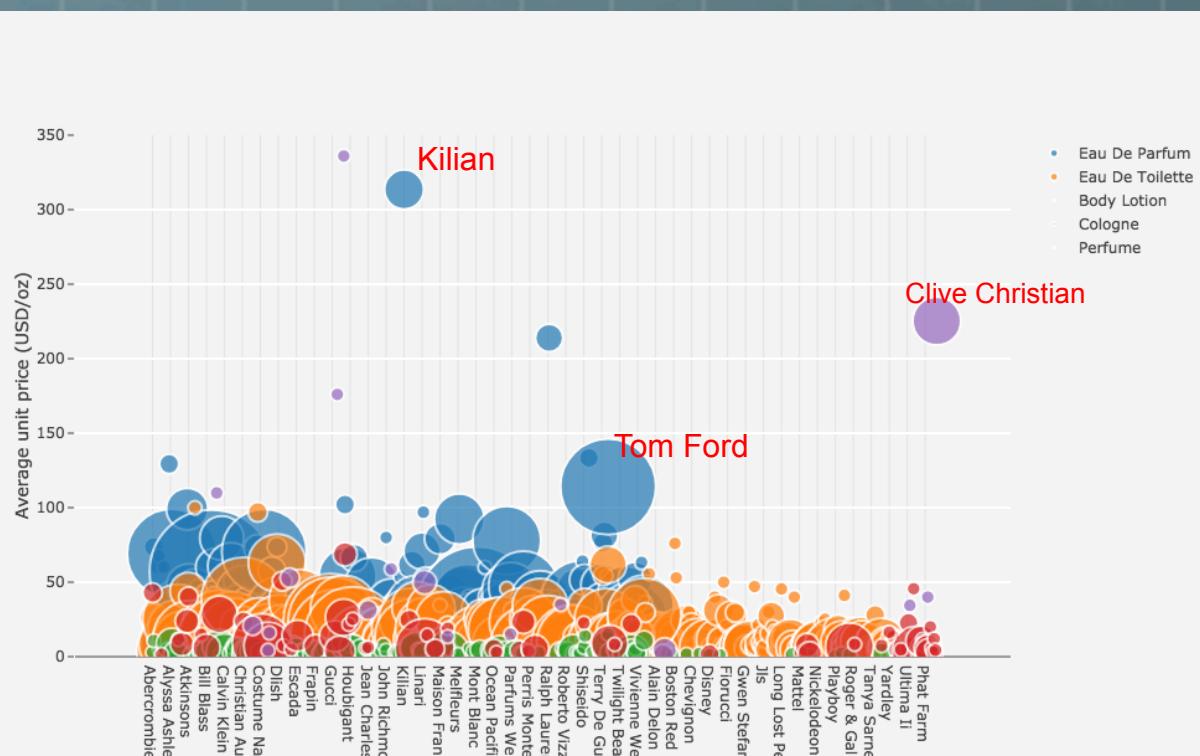
The top 20 fragrances producing design houses are what we commonly see at Macy's. e.g. CK, Gucci, Burberry ..., etc.

Black, Love, Rose are common words used to name fragrance products.



-  A lot of popular design house's names show up.
(Most of the product name after the design house.)
 -  Black , Love , Rose are also quite popular words to name a fragrance products.

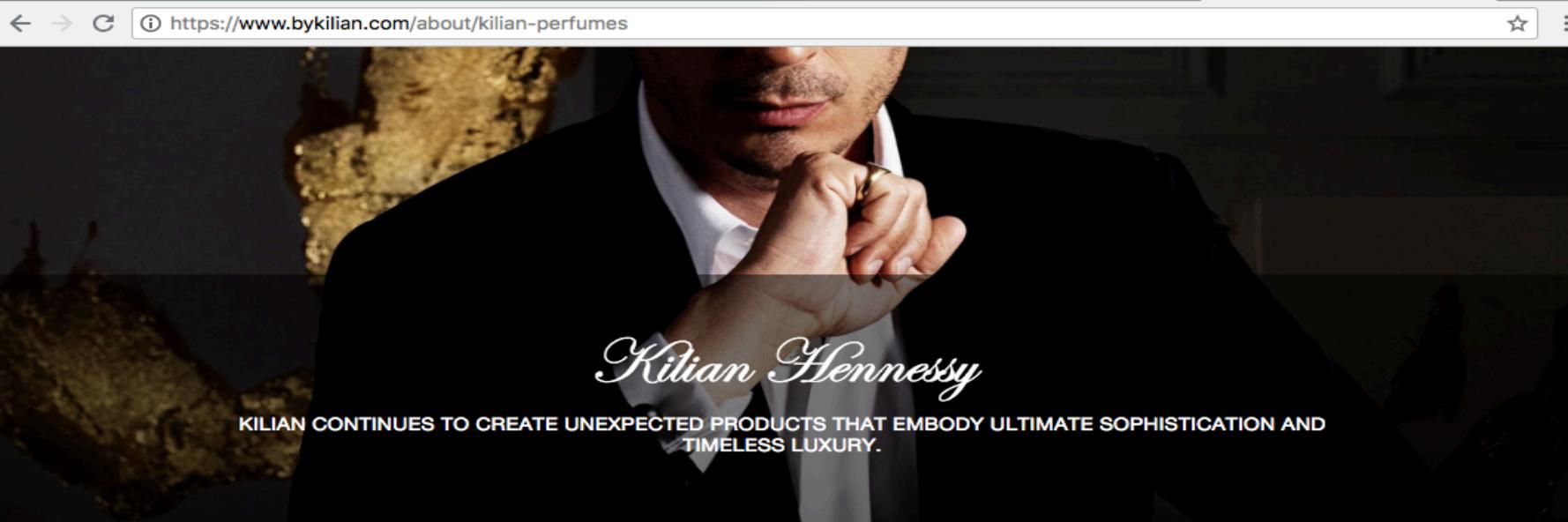
Trends related with prices, types, design houses



Eau De Parfum in general is more expensive than Eau De Toilette. This could due to its fragrance concentration within the product.

Kilian and Clive Christian
seems to be super
luxurious perfume brands.

Tom Ford is generally high end and also contain quite a lot of products in the market.



Kilian Hennessy

KILIAN CONTINUES TO CREATE UNEXPECTED PRODUCTS THAT EMBODY ULTIMATE SOPHISTICATION AND TIMELESS LUXURY.

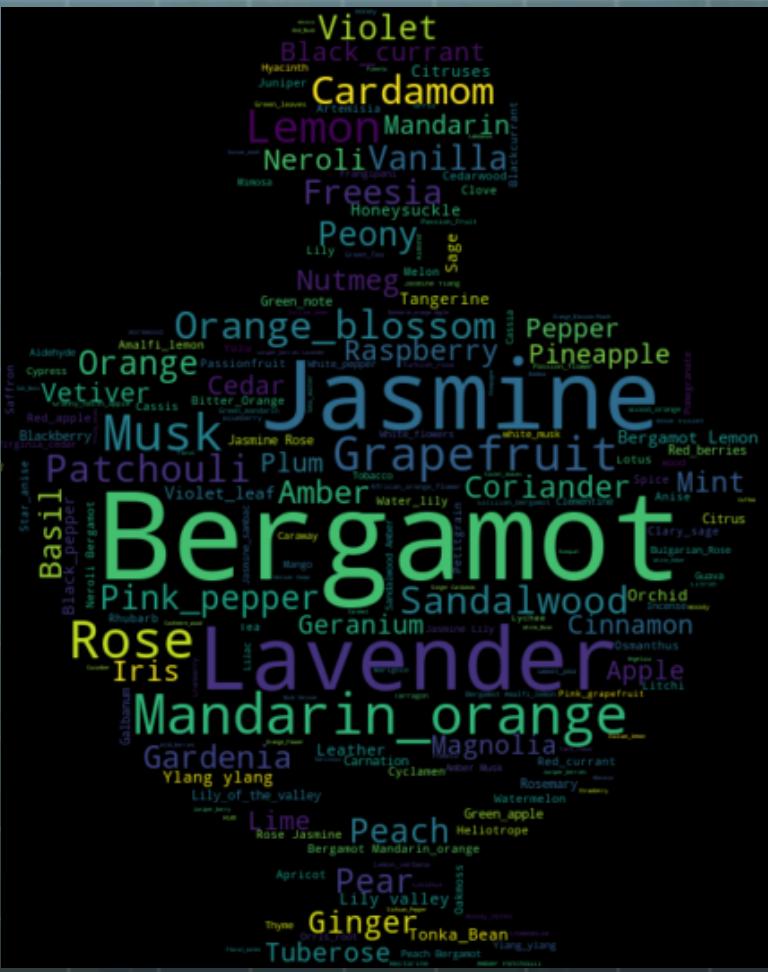
BIOGRAPHY

Heir to a long line of cognac-makers who were pioneers in luxury, Kilian decided to take up the torch of family tradition. Creating a new luxury brand was definitely a challenge worthy of his predecessors.

His childhood haunts included the family cellars in Cognac. Before graduating from CELSA, he wrote a thesis on the semantics of scent, in search of a 'language' common to gods and mortals. Remembering the «angels' share» as part of his heritage, he was led into the world of perfumery. The «angels' share» is what the House of Hennessy calls the percentage that - inexplicably - evaporates from cognac cellars, like an offering to the gods.

Many of Kilian's fragrances today carry this childhood memory as they are reminiscent of the sugar in the alcohol and the wood of the cognac barrels.

What are the most common scents among the products ?



~5,100 fragrances in fragrancenet



~1,000 fragrances in sephora

Underlining Sematic Lexicon

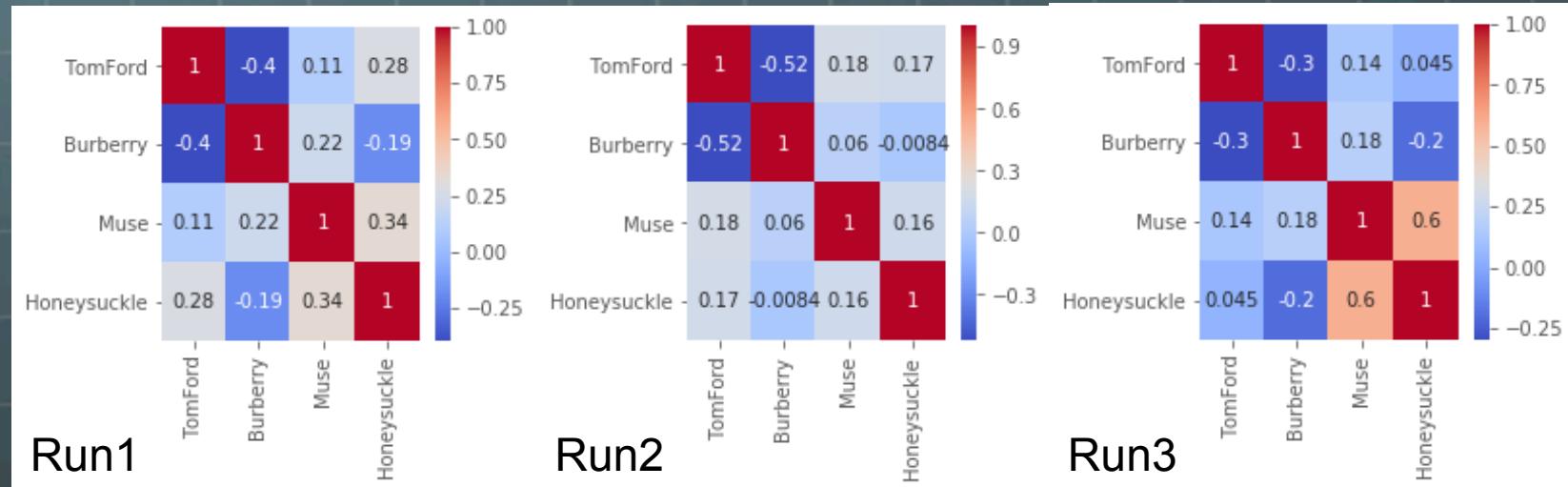
- **Each fragrance has a series of notes describing how does it smell. The total vocabulary is relatively simple =~ 1200 vocabulary.**
- **Objective: learn the relationships between those words (What is similar. What is not similar.). Based on how they often describe a fragrance, we can use word2vec to estimate the Semantic similarity.**

Check for successful of the learning results

• **wv.similarity (peach vs. raspberry) = 0.74**

• **wv.similarity (peach vs. sandalwood) = - 0.0198**

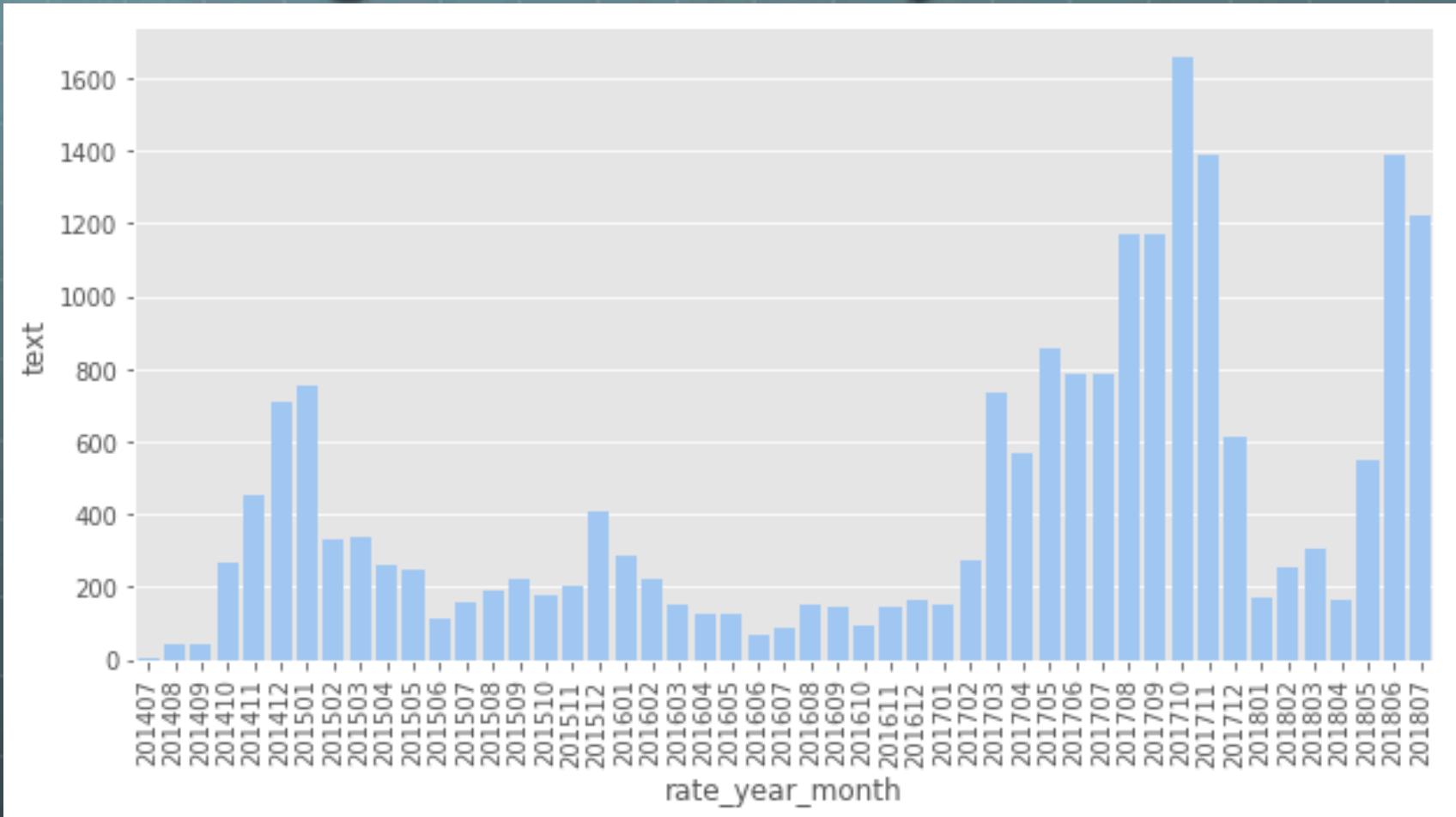
- Tom Ford = ['grapefruit,aromatic_sage,orris,orange_blossom,pimiento,oak_moss,amber_woods,nutmeg']
- Burberry = ['Orange ,Cassia ,Cranberry ,Blackberry ,Red_pepper']
- muse = ['Red_Currant ,Raspberry ,Pink_Pepper ,Saffron ,Bulgarian_Rose']
- Honeysuckle = ['Italian_Bergamot,Honeysuckle,Grapefruit,Mandarin_Oil,Jasmine_Sambac_Absolute']



Conclusion:

- Testing by few words, the result is quite stable.
- The absolute number didn't seem to preserved by different runs. However, the relative relationship seems preserved.

Consumers love buying perfumes during winter holiday season ?



- Customers posted more reviews during the winter holiday season.

Top 10 fragrances got the most reviews

product	product_brand	product_type	rating_count	rating_mean	rating_median	rating_std
D & G Light Blue	Dolce & Gabbana	Eau De Toilette	438	5.000000	5.0	0.000000
Euphoria	Calvin Klein	Eau De Parfum	220	5.000000	5.0	0.000000
Acqua Di Gio	Giorgio Armani	Eau De Toilette	186	5.000000	5.0	0.000000
Eternity	Calvin Klein	Eau De Parfum	180	4.200000	5.0	1.604463
Simply Belle	Exceptional Parfums	Eau De Parfum	178	4.286517	5.0	1.496489
Angel	Thierry Mugler	Eau De Parfum	175	5.000000	5.0	0.000000
Cool Water	Davidoff	Eau De Toilette	172	4.220930	5.0	1.462203
Burberry	Burberry	Eau De Parfum	160	4.975000	5.0	0.222903
Obsession	Calvin Klein	Eau De Parfum	154	5.000000	5.0	0.000000
La Vie Est Belle	Lancome	Eau De Parfum	140	4.800000	5.0	0.401436



Review rating didn't give us much insights.

I still didn't get the reviewer's language...



SURE ENUFF KNOWING SIGNATURE through years ago compliments changes received bottle THIS NORN
NORN ALT MONMOM ASKED Euphoria FRAGRANCE Calvint
ABSOLUTELY ADORE GEORGIA PHILA DAD FRONT one
MONMOM KNOWN NICE KNOH EUPHORIA DAUGHTER RECENTLY
SOON TAKEN ABSOLUTELY EUPHORIA CALVIN • receive compliment
SOON AROUND floats behind smell floats FRAGRANCE DAUGHTER
ITEMS THAT RECEIVED FIRST absolutely love son bags though SMELT MONMOM scent smell
experience love PA DAUGHTER RECENTLY HUGS HUGS
PHILA PA DAUGHTER RECENTLY HUGS HUGS
happy experience KNOH GRANDS behind front present years
PA RECEIVED TOLD SMELL many years RECENTLY PURCHASED
FRAGRANCE SURE GRANDS RECOGNIZED
ADORE EUPHORIA ALL GEORGIA KLEIN EUPHORIA
fragrance happy ASKED FRAGRANCE Klein amazing
birthday presents birthday present ABSOLUTELY age absolutely want bags
RECENTLY PURCHASED GRADS RECOGNIZED
ONE GRANDCHILDREN TWO EUPHORIA NICE
LOVED SELL SIGNATURE GRANDCHILDREN
RECOGNIZED ONE GRANDCHILDREN TWO EUPHORIA NICE
LOVED SELL SIGNATURE GRANDCHILDREN

Apple
Cedar
Bellflower
Sicilian lemon
White rose

Bergamot
Peach
Green Notes
Lotus
Orchid