

What Makes a Great Mens Running Shoe

Motivation:

In the shoe market there are many categories; athletic, casual, boots, hiking, and running. People love shoes and I find that people are often most critical of shoes that require performance more than just style. For that reason I chose to focus on mens running shoes. Zappos has almost 1500 different mens running shoes in their inventory. That figure includes all the color pallets for each model. This figure is made from 37 different brands, and 507 different models. Zappos offers customer reviews, favorite likes (heart clicks), and ratings for true to size, true to width, and arch support.

True to size rating is a customer given rating that rates how accurate a shoe length fits compared to the size it's labeled. This is also the same for true to width and arch support. As for favorite clicks, they loosely refer style and aesthetic.

Cont.

With all of these different ratings I was curious to find out which were the top brands and models. What customers have to say about the highest rated shoes? What makes a running shoe stand out from the rest? Is it style, traction, light weight, price, fitment, or just plain comfort? To weight this out I used average customer rating, number of user reviews, favorite likes, true to size, width and arch support. Before we get to the results, let's take a look at my method for scraping.

Method:

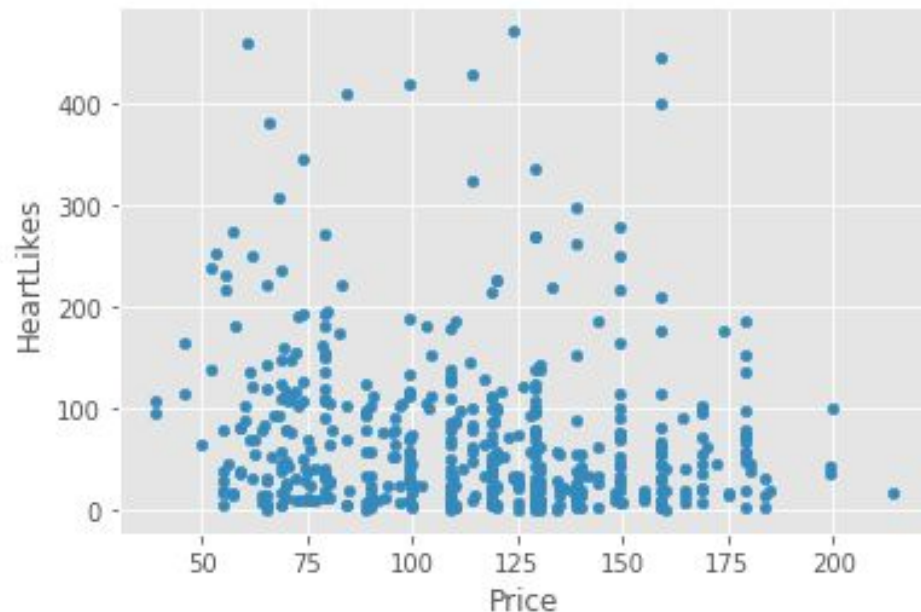
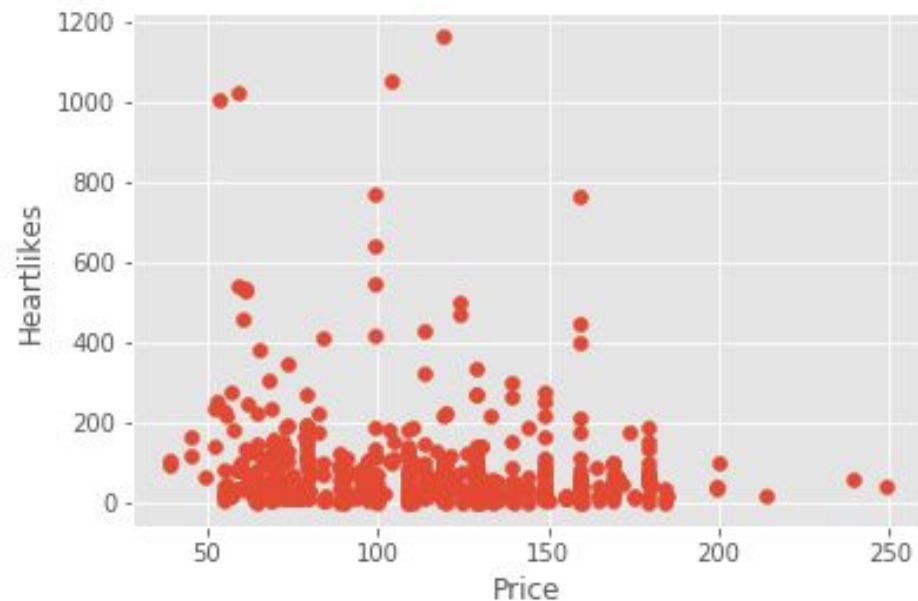
The method I used for scraping Zappos was Selenium. This allowed me to collect all necessary information for each model. This information consisted of brand name, model name, price, overall rating, favorite clicks, number of reviews, true to size, true to width, arch support, and number of customer reviews. Additionally I collected the customer reviews for the top four selling models. The data was sorted in order of the overall rating, number of customer reviews, then favorite likes.

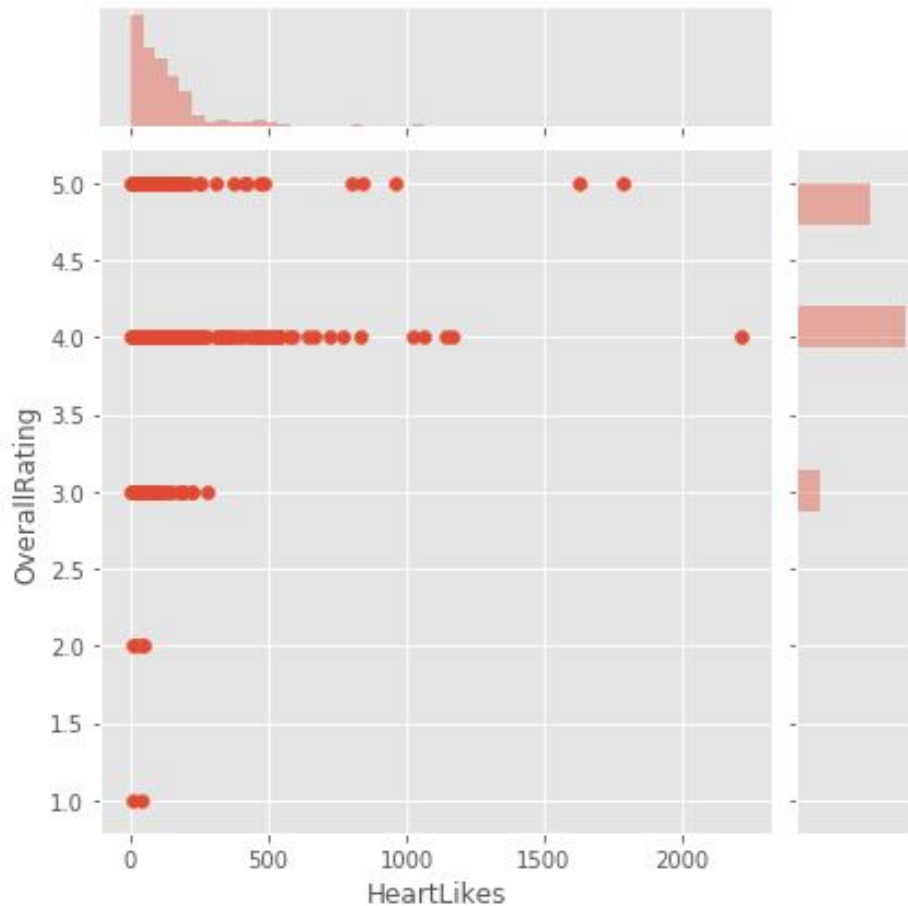
Let's take a look at the results!

Top Seven Men's Running Shoes:

index	Brand	Model	Price	Overall Rating	Favorite Clicks	True to Size	True to Width	Arch Support	Number of Reviews
1	New Balance	M990V4	104	5	1786	89	93	71	443
2	Brooks	Ghost 11	99	5	1624	88	92	79	438
3	Salomon	XA Pro 3D	129	5	414	91	89	70	167
4	Hoka One One	Bondi 6	149	5	465	83	83	72	163
5	Adidas	Rockadia Trail	46	5	199	65	96	86	99
6	Brooks	Launch 6	99	5	309	98	97	89	97
7	Merrell	Trail Glove 4	99	5	960	73	87	74	93

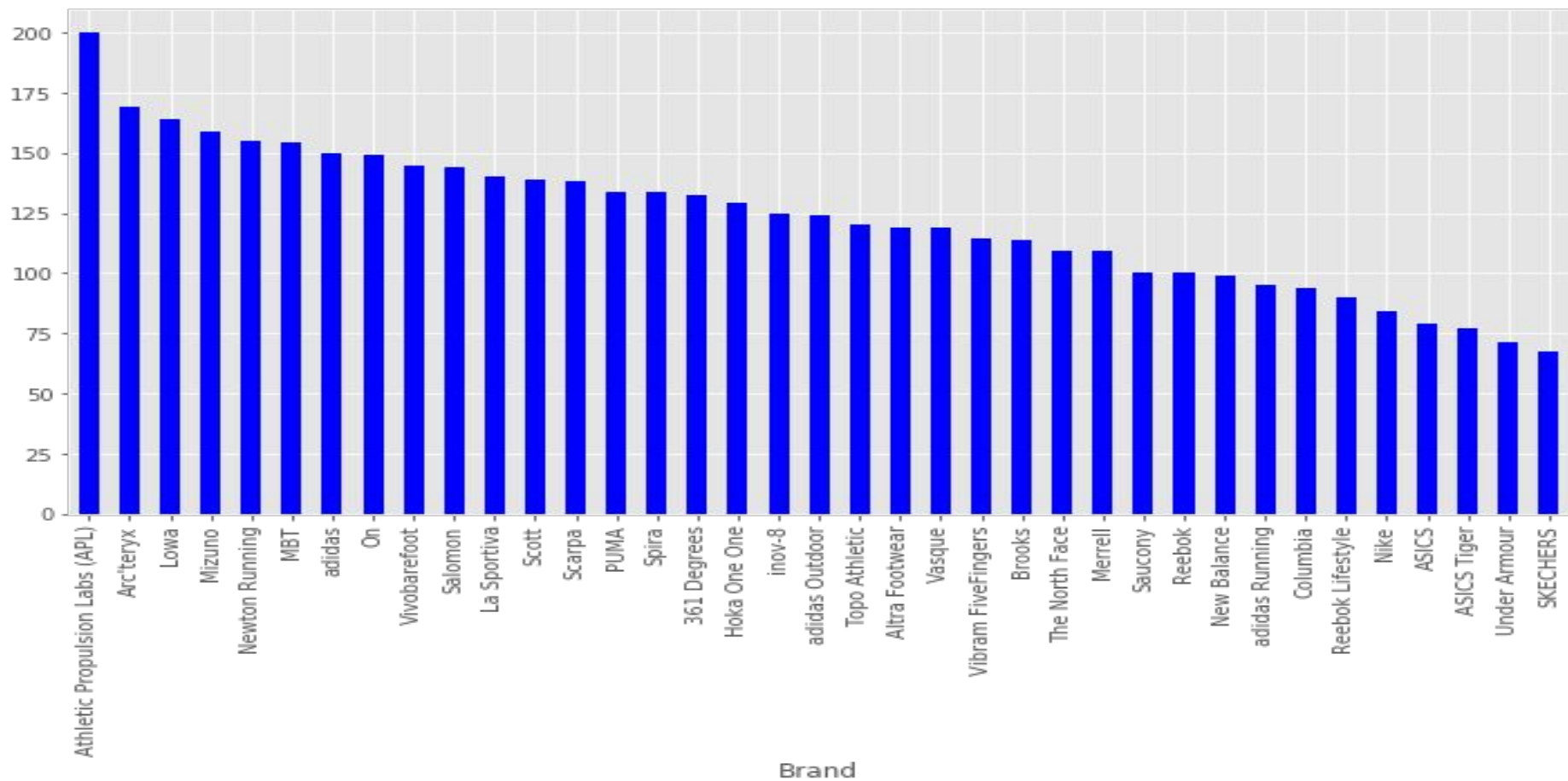
On the left is an orange scatter plot of price vs favorite clicks. On the right is the same plot but focuses in on the lower amount of favorite clicks. We can see for favorite clicks below 500 the results are pretty uniform for below 175\$. And the models with clicks over 1000 are between 50\$ and 125\$



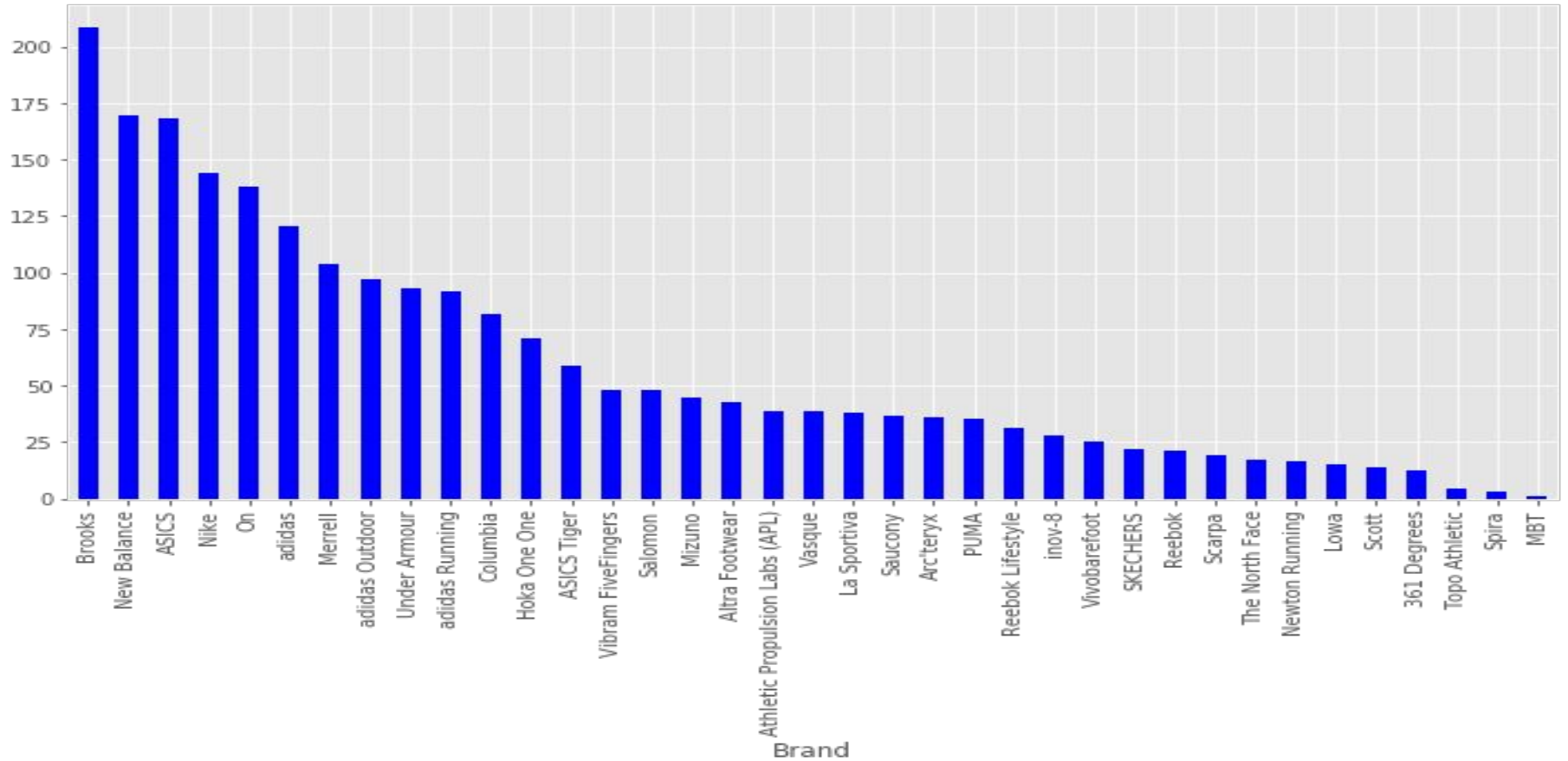


On the left is a scatter plot of overall rating vs heart likes. We can see that our intuition is generally true; that more likes are associated with higher ratings.

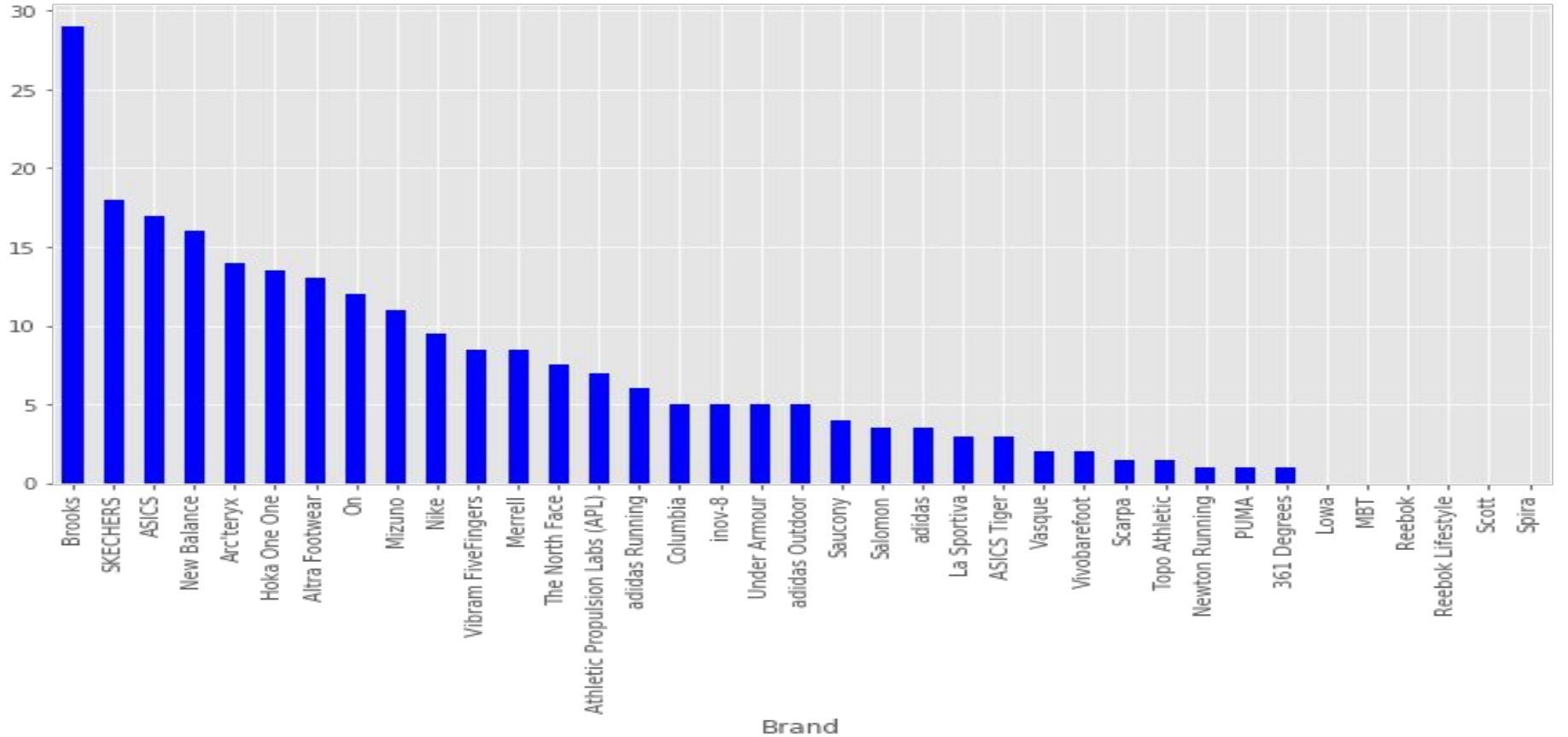
Price vs Brand



Likes vs Brand



Number of Reviews vs Brand



Top Four Shoes Word Clouds

Let's take a look at the word clouds for the top 4 running shoes, we can easily see a common theme. The words that stand out the most are 'great', 'comfortable' and 'fit'. These words agree with our intuition about what we want from a running shoe. People want comfort and a solid fit. Also notice there are almost no words regarding anything about style or aesthetics.

Conclusion:

From the results we can conclude there are really only two best men's running shoes. The models following still rated high, however the number of reviews that contribute to the ratings drop significantly.

The factors that make a top selling running shoes are comfort, accurate fitment, and a decent price point.

Future Interests

There is a whole other side to explore, womens running shoes. I'm curious how these results would compare to men's running shoes. Would they simply be the same or would other factors drive a specific shoe to the top?

Additionally I would like to explore the subcategories of running shoes; trail running and regular running shoes.

In general, how does the color pallet weigh in on customer's preferences?