STAT 824 Final Project

Noah Campbell • 07.19.2024

Luxury Watches

I have been interested in nice watches for awhile now. I decided for this project I wanted to make a tool that could help visualize sales data on watches.

Data

	A	B	C	D	E	F	G	H	I	J	K
1	Brand	Model	CaseMateria	StrapMateria	MovementTy	WaterResist	CaseDiamet	CaseThickne	BandWidth(r	DialColor	Price(USD)
2	Rolex	Submariner	Stainless Ste	Stainless Ste	Automatic	300	40	13	20	Black	$9,500.00
3	Omega	Seamaster	Titanium	Rubber	Automatic	600	44	14	21	Blue	$5,800.00
4	Tag Heuer	Carrera	Stainless Ste	Leather	Automatic	100	41	13	20	White	$4,200.00
5	Breitling	Navitimer	Stainless Ste	Stainless Ste	Automatic	30	43	14	22	Black	$7,900.00
6	Cartier	Tank Solo	Stainless Ste	Leather	Quartz	30	31	6	20	Silver	$2,800.00
7	Jaeger-LeCor	Reverso	Stainless Ste	Leather	Manual	30	43	9	20	Black	$5,500.00
8	Seiko	Prospex	Stainless Ste	Rubber	Automatic	200	44	13	20	Black	$1,400.00
9	Tissot	Le Locle	Stainless Ste	Leather	Automatic	30	39	10	19	White	$650.00
10	Hamilton	Khaki Field	Stainless Ste	Leather	Automatic	100	38	10	20	Black	$495.00
11	Longines	Master Colle	Stainless Ste	Leather	Automatic	30	39	10	20	Silver	$1,150.00
12	Bell & Ross	Aviation	Stainless Ste	Rubber	Automatic	100	42	12	24	Black	$4,500.00
13	Breguet	Classique	White Gold	Leather	Manual	30	38	9	20	Silver	$16,000.00
14	Audemars Pig	Royal Oak	Stainless Ste	Stainless Ste	Automatic	50	41	10	20	Silver	$22,000.00
15	Vacheron Co	Overseas	Stainless Ste	Rubber	Automatic	150	41	11	22	Blue	$19,000.00
16	Omega	Speedmaster	Stainless Ste	Stainless Ste	Automatic	50	42	15	20	Black	$4,500.00
17	Breitling	Superocean	Stainless Ste	Rubber	Automatic	500	42	13	20	Blue	$3,200.00
18	Panerai	Luminor Base	Stainless Ste	Leather	Manual	100	44	11	22	Black	$3,900.00
19	Tudor	Black Bay	Stainless Ste	Leather	Automatic	200	41	12	22	Black	$3,500.00
20	Rolex	GMT-Master	Stainless Ste	Stainless Ste	Automatic	100	40	13	20	Black	$14,000.00

Data

- I found this educational data set online through kaggle. There were originally 500 observations of 14 variables.

- The original variables are brand, case material, strap material, movement types, water resistance level, case diameter, case thickness, band width, dial color, crystal material, complications, power reserve, and price.

- The variables complications and power reserve were missing entries so I decided to remove them from the data set that I loaded in R. The crystal material variable was almost unanimously sapphire so I removed that variable also as it was redundant.

Shiny App

I decided to create a shiny app that would help me visualize the discrete variables in the data set via box plot.

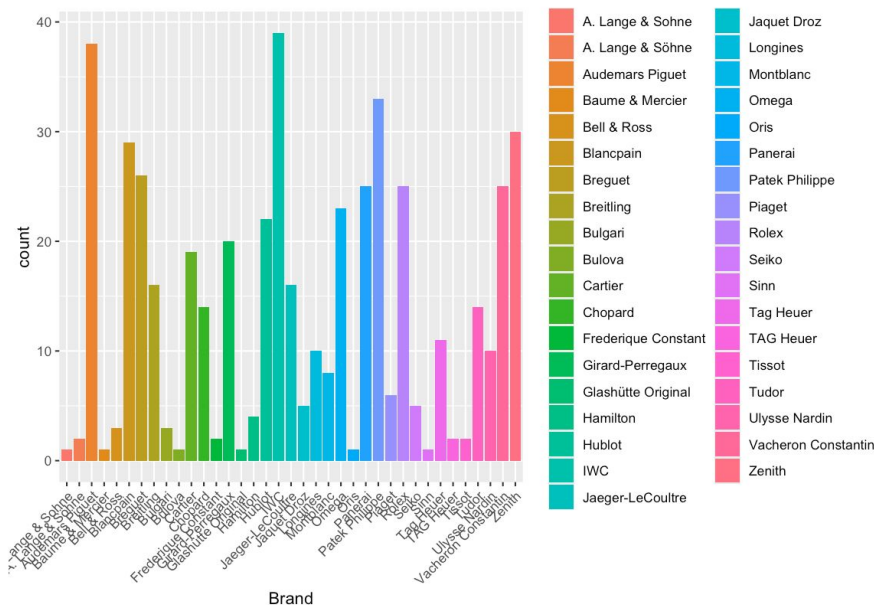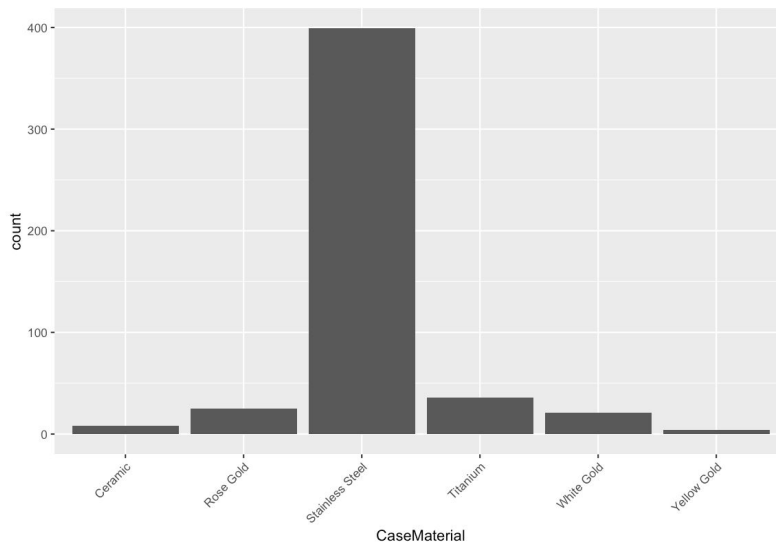# Application Example 1

In this example I selected the variable case material with no fill. This shows viewers what the majority of luxury watches are mostly made of. We can see that most of the watches are stainless steel.
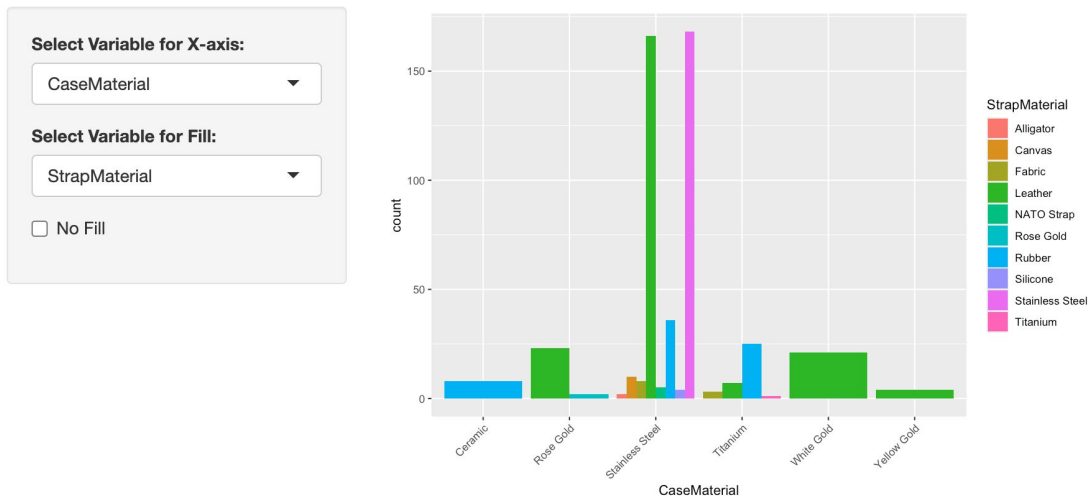
Application Example 2

In this example I selected the variable case material with fill of band material. This shows viewers what the majority of luxury watches are mostly made of and what bracelet type is on those watches. We can see that most of the precious metal watches in this data set have a leather band.

Application Example 3

In this example I selected the variable movement type with fill of brand. This shows that the majority of the watches are automatic but also shows which brand has a quartz offering. These are just a couple of examples that are possible with this application.
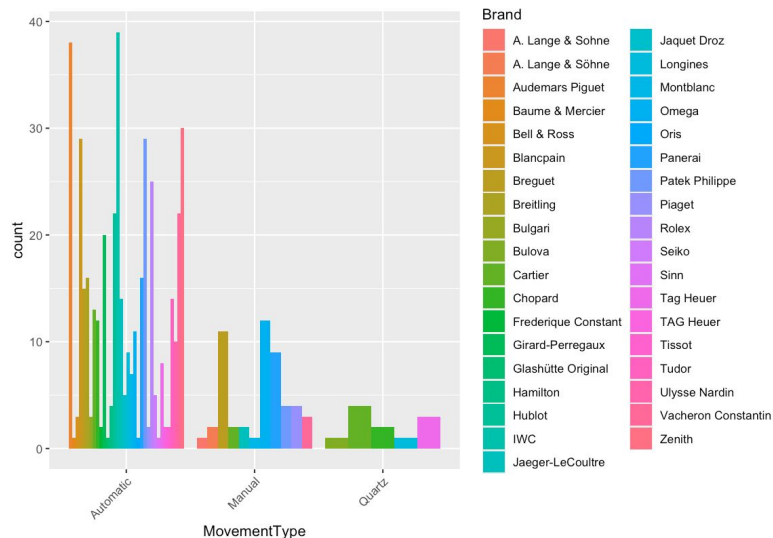
Conclusion

- It was challenging to work with Shiny but this project really helped open my eyes to the explanatory power that these applications can have

- I tried to incorporate some of the continuous variables into this project but was having trouble getting the application to run. I definitely need more practice with Shiny, but it seems like Shiny is the best way to present data visualizations

Shiny/Github link

- Shiny link http://127.0.0.1:3618/

- Github link https://github.com/NoahCampbell9