

HOUSE PRICE ANALYSIS VISUALIZATION

NAME: SHABARIVASAN GK

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Assignment_3.ipynb
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!unzip 'content/archive (2).zip'

[ ] import pandas as v
import numpy as s
import matplotlib.pyplot as plt
import seaborn as sea

[ ] vs = v.read_csv('/content/House Price India.csv')

[ ] vs.head()
```

	id	Date	number of bedrooms	number of bathrooms	living area	lot area	number of floors	waterfront present	number of views	condition of the house	...	Built Year	Renovation Year	Postal Code	Latitude	Longitude	living_area
0	6762810145	42491	5	2.50	3650	9050	2.0	0	4	5	...	1921	0	122003	52.8645	-114.557	
1	6762810635	42491	4	2.50	2920	4000	1.5	0	0	5	...	1909	0	122004	52.8878	-114.470	
2	6762810998	42491	5	2.75	2910	9480	1.5	0	0	3	...	1939	0	122004	52.8852	-114.468	
3	6762812605	42491	4	2.50	3310	42998	2.0	0	0	3	...	2001	0	122005	52.9532	-114.321	

```
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[ ]
```

#	Column	non-null count	dtype
0	id	14620 non-null	int64
1	Date	14620 non-null	int64
2	number of bedrooms	14620 non-null	int64
3	number of bathrooms	14620 non-null	float64
4	living area	14620 non-null	int64
5	lot area	14620 non-null	int64
6	number of floors	14620 non-null	float64
7	waterfront present	14620 non-null	int64
8	number of views	14620 non-null	int64
9	condition of the house	14620 non-null	int64
10	grade of the house	14620 non-null	int64
11	Area of the house(excluding basement)	14620 non-null	int64
12	Area of the basement	14620 non-null	int64
13	Built Year	14620 non-null	int64
14	Renovation Year	14620 non-null	int64
15	Postal Code	14620 non-null	int64
16	Latitude	14620 non-null	float64
17	Longitude	14620 non-null	float64
18	living_area_renov	14620 non-null	int64
19	lot_area_renov	14620 non-null	int64
20	Number of schools nearby	14620 non-null	int64
21	Distance from the airport	14620 non-null	int64
22	Price	14620 non-null	int64

```
dtypes: float64(4), int64(19)
memory usage: 2.6 MB
```

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[] vs_price

	id	Date	number of bedrooms	number of bathrooms	living area	lot area	number of floors	water-front present	number of views	condition of the house	...	Built Year	Renovation Year	Postal Code	Latitude	Longitude	livi
243	6762810052	42496	7	4.50	6210	8856	2.5	0	2	5	...	1910	0	122061	52.8607	-114.544	
1622	6762810059	42518	6	4.25	6980	15682	3.0	0	4	4	...	1999	0	122057	52.7852	-114.421	
1697	6762810035	42519	4	3.50	5550	28078	2.0	0	2	4	...	2000	0	122071	52.8695	-114.424	
2424	6762810021	42531	5	4.50	10040	37325	2.0	1	2	3	...	1940	2001	122048	52.8800	-114.404	
2794	6762810027	42537	5	6.75	9640	13068	1.0	1	4	3	...	1983	2009	122057	52.7870	-114.400	
2907	6762810029	42538	4	3.00	6430	27517	2.0	0	0	3	...	2001	0	122048	52.8508	-114.409	
2908	6762810065	42538	4	4.25	4850	12445	2.0	1	4	5	...	1989	0	122033	52.9311	-114.434	
3234	6762810043	42543	3	4.50	5230	17826	2.0	1	4	3	...	2005	0	122057	52.7648	-114.433	
3376	6762810062	42544	4	5.00	4550	18641	1.0	1	4	3	...	2002	0	122019	52.8353	-114.267	
3946	6762810033	42551	5	5.50	7050	42840	1.0	0	2	4	...	1978	0	122048	52.8529	-114.410	
4061	6762810047	42552	5	6.25	8020	21738	2.0	0	0	3	...	2001	0	122027	52.7975	-114.379	

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5887	6762810060	42579	5	5.25	5090	23669	2.0	0	0	3	...	2006	0	122048	52.8597	-114.406	
6244	6762810023	42585	5	5.75	9200	35069	2.0	0	0	3	...	2001	0	122071	52.8589	-114.423	
6674	6762810066	42592	3	3.50	4410	10756	2.0	1	4	3	...	2014	0	122053	52.7583	-114.395	
6781	6762810053	42593	4	3.25	7000	28206	1.0	1	4	4	...	1991	0	122020	52.8228	-114.276	
7627	6762810061	42606	3	3.00	3920	13085	2.0	1	4	4	...	1996	0	122057	52.8016	-114.394	
7736	6762810054	42607	4	4.00	4810	18851	2.0	0	3	3	...	2007	0	122048	52.8664	-114.404	
7955	6762810057	42609	5	3.50	4330	11979	1.0	0	4	3	...	2008	0	122048	52.8551	-114.408	
8265	6762810048	42616	5	4.75	6200	13873	2.0	1	4	4	...	1989	0	122029	52.8350	-114.302	
8691	6762810034	42623	3	4.25	5510	35000	2.0	0	4	3	...	1997	0	122050	52.9596	-114.560	
8692	6762810038	42623	4	3.25	4830	22257	2.0	1	4	4	...	1990	0	122071	52.8709	-114.431	
9171	6762810022	42631	6	7.75	9890	31374	2.0	0	4	3	...	2001	0	122071	52.8605	-114.430	
9348	6762810055	42635	6	5.00	7100	18200	2.5	0	0	3	...	1933	2002	122032	52.8727	-114.598	
10167	6762810042	42649	5	5.00	5450	20412	2.0	0	0	3	...	2014	0	122071	52.8509	-114.427	
10498	6762810039	42653	5	6.00	5490	19897	2.0	0	0	3	...	2005	0	122071	52.8485	-114.426	
10503	6762810020	42655	6	8.00	12050	27600	2.5	0	3	4	...	1910	1987	122013	52.8598	-114.513	

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9348	6762810055	42635	6	5.00	7100	18200	2.5	0	0	3	...	1933	2002	122032	52.8727	-114.598
10167	6762810042	42649	5	5.00	5450	20412	2.0	0	0	3	...	2014	0	122071	52.8509	-114.427
10498	6762810039	42653	5	6.00	5490	19897	2.0	0	0	3	...	2005	0	122071	52.8465	-114.426
10503	6762810020	42655	6	8.00	12050	27600	2.5	0	3	4	...	1910	1987	122013	52.8598	-114.513
10566	6762810031	42656	4	5.50	7080	16573	2.0	0	0	3	...	2008	0	122071	52.8451	-114.414
10915	6762810026	42662	5	5.25	8010	45517	2.0	1	4	3	...	1999	0	122010	52.9067	-114.401
10916	6762810049	42662	8	4.00	7710	11750	3.5	0	0	5	...	1904	0	122047	52.8563	-114.504
12442	6762810032	42687	4	4.25	5770	21300	2.0	1	4	4	...	1980	0	122057	52.8150	-114.412
12599	6762810040	42691	3	3.25	5020	12431	2.0	1	4	3	...	1941	2002	122054	52.8225	-114.477
12768	6762810063	42693	3	2.50	3930	55867	1.0	1	4	4	...	1957	0	122033	52.9322	-114.414
12947	6762810058	42697	3	3.50	4490	56609	2.0	1	4	3	...	1993	0	122033	52.9297	-114.430
13709	6762810051	42713	2	1.75	6840	10000	2.5	1	4	3	...	2001	0	122029	52.8342	-114.302
14532	6762810050	42733	3	3.25	4220	41300	1.0	1	4	4	...	1958	1987	122029	52.8383	-114.300

35 rows x 23 columns

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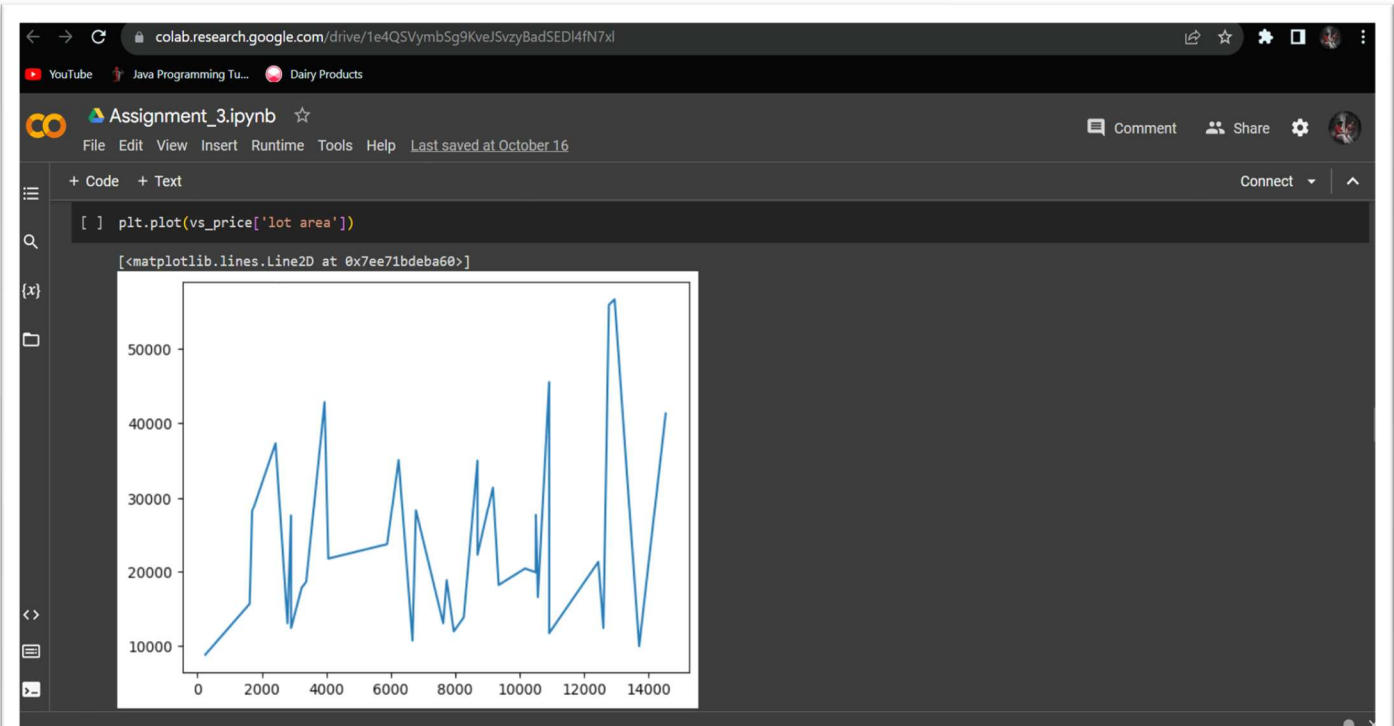
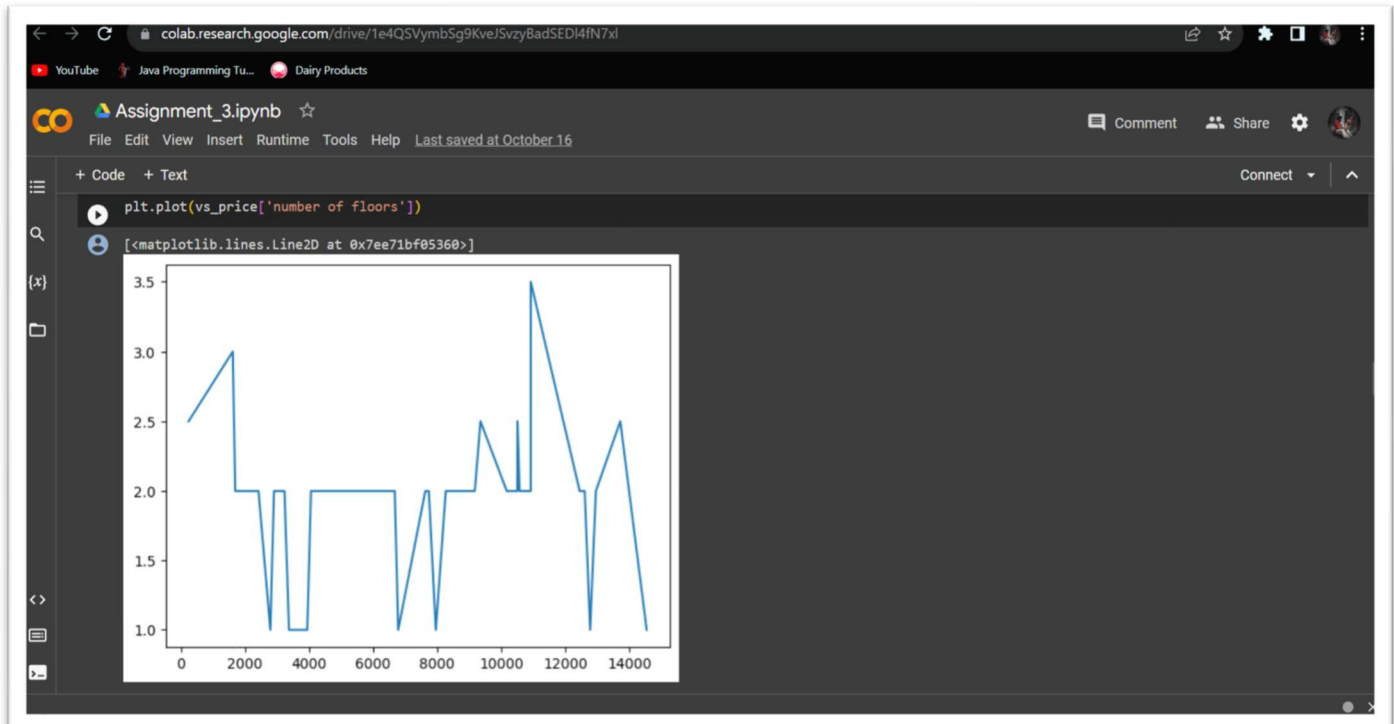
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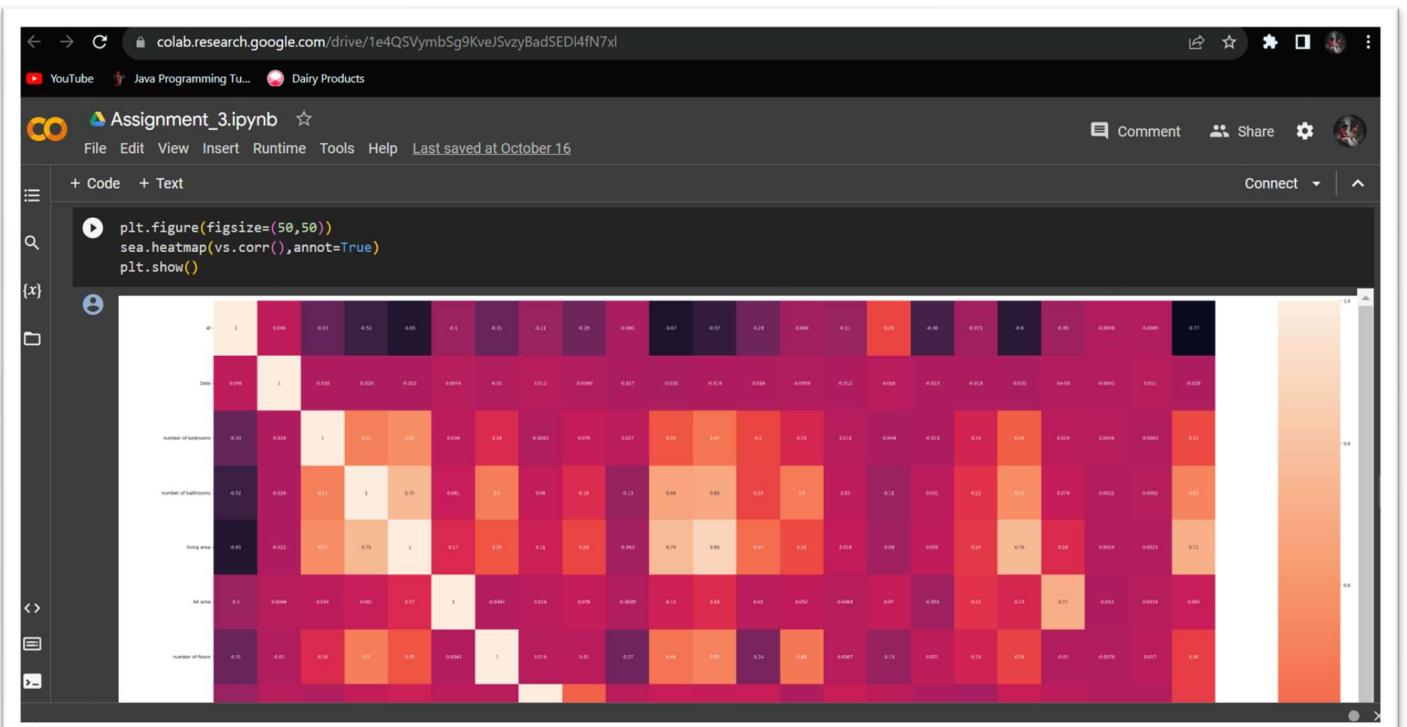
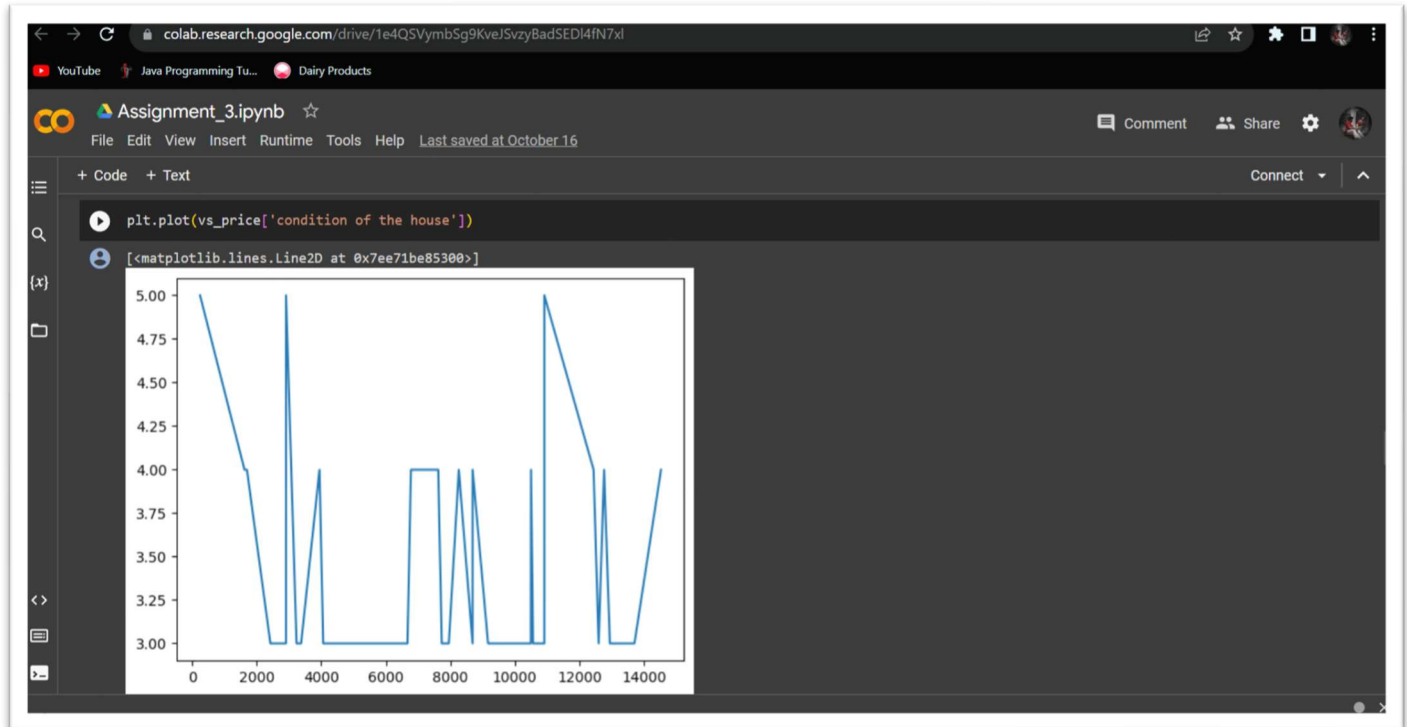
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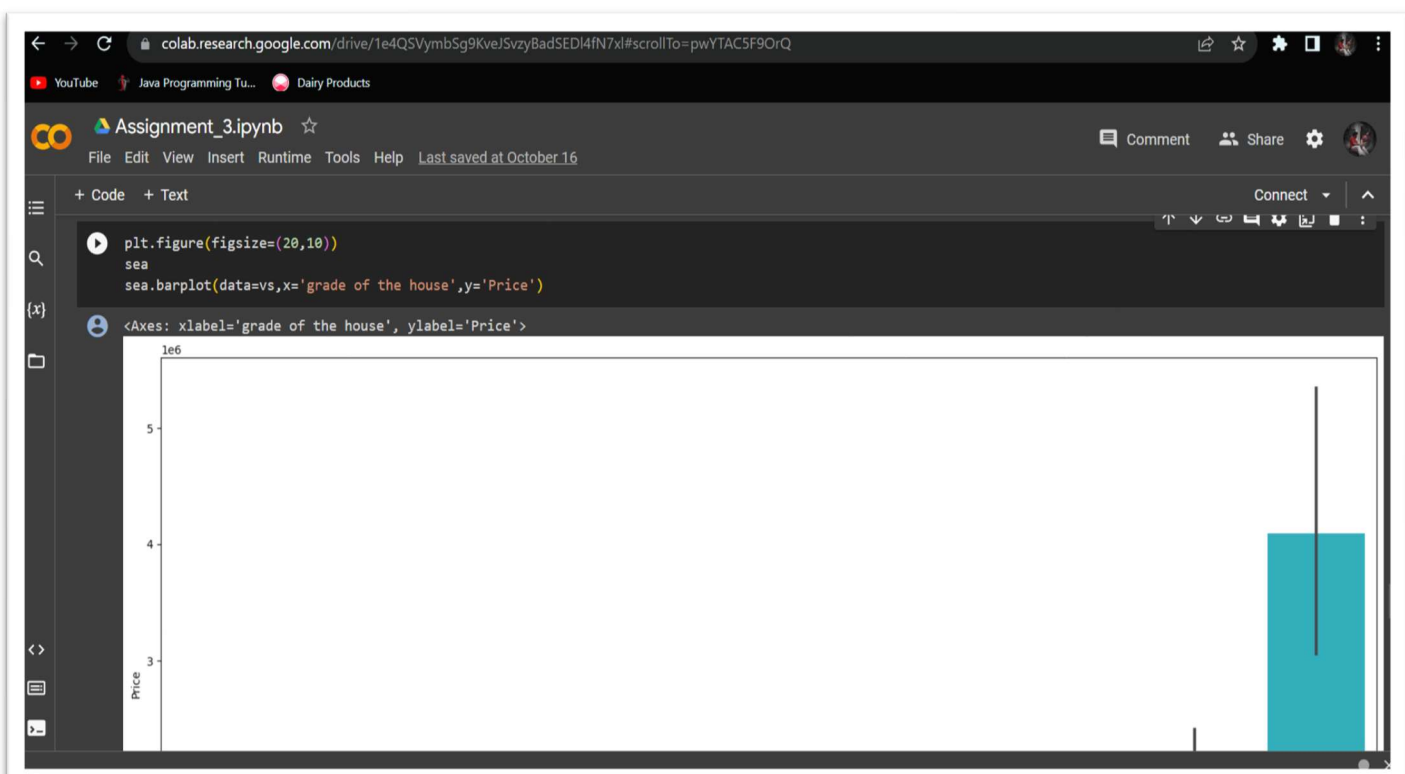
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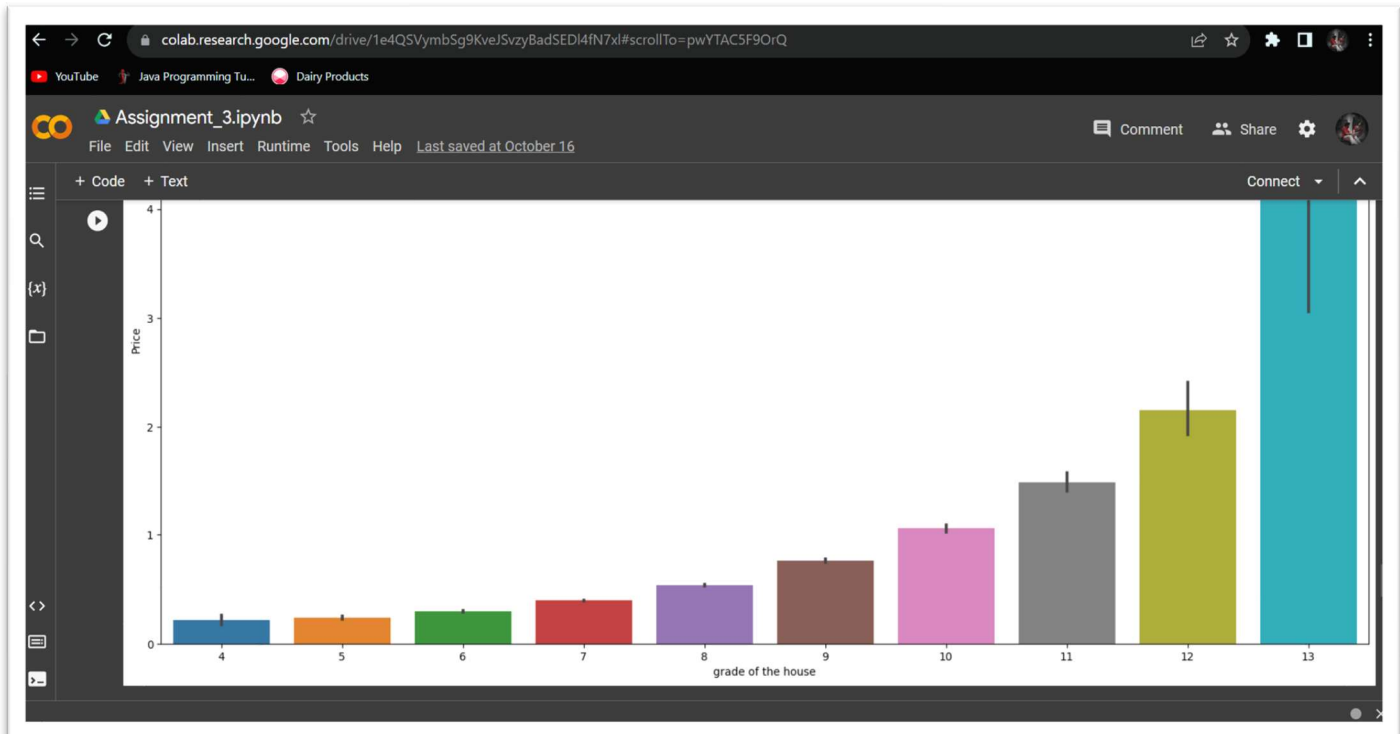
9348	6762810055	42635	6	5.00	7100	18200	2.5	0	0	3	...	1933	2002	122032	52.8727	-114.598
10167	6762810042	42649	5	5.00	5450	20412	2.0	0	0	3	...	2014	0	122071	52.8509	-114.427
10498	6762810039	42653	5	6.00	5490	19897	2.0	0	0	3	...	2005	0	122071	52.8465	-114.426
10503	6762810020	42655	6	8.00	12050	27600	2.5	0	3	4	...	1910	1987	122013	52.8598	-114.513
10566	6762810031	42656	4	5.50	7080	16573	2.0	0	0	3	...	2008	0	122071	52.8451	-114.414
10915	6762810026	42662	5	5.25	8010	45517	2.0	1	4	3	...	1999	0	122010	52.9067	-114.401
10916	6762810049	42662	8	4.00	7710	11750	3.5	0	0	5	...	1904	0	122047	52.8563	-114.504
12442	6762810032	42687	4	4.25	5770	21300	2.0	1	4	4	...	1980	0	122057	52.8150	-114.412
12599	6762810040	42691	3	3.25	5020	12431	2.0	1	4	3	...	1941	2002	122054	52.8225	-114.477
12768	6762810063	42693	3	2.50	3930	55867	1.0	1	4	4	...	1957	0	122033	52.9322	-114.414
12947	6762810058	42697	3	3.50	4490	56609	2.0	1	4	3	...	1993	0	122033	52.9297	-114.430
13709	6762810051	42713	2	1.75	6840	10000	2.5	1	4	3	...	2001	0	122029	52.8342	-114.302
14532	6762810050	42733	3	3.25	4220	41300	1.0	1	4	4	...	1958	1987	122029	52.8383	-114.300

35 rows x 23 columns









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vs.describe()

	id	Date	number of bedrooms	number of bathrooms	living area	lot area	number of floors	waterfront present	number of views	condition of the house	...	Built Year
count	1.462000e+04	14620.000000	14620.000000	14620.000000	14620.000000	1.462000e+04	14620.000000	14620.000000	14620.000000	14620.000000	...	14620.000000
mean	6.762821e+09	42604.538646	3.379343	2.129583	2098.262996	1.509328e+04	1.502360	0.007661	0.233105	3.430506	...	1970.926402
std	6.237575e+03	67.347991	0.938719	0.769934	928.275721	3.791962e+04	0.540239	0.087193	0.766259	0.664151	...	29.493625
min	6.762810e+09	42491.000000	1.000000	0.500000	370.000000	5.200000e+02	1.000000	0.000000	0.000000	1.000000	...	1900.000000
25%	6.762815e+09	42546.000000	3.000000	1.750000	1440.000000	5.010750e+03	1.000000	0.000000	0.000000	3.000000	...	1951.000000
50%	6.762821e+09	42600.000000	3.000000	2.250000	1930.000000	7.620000e+03	1.500000	0.000000	0.000000	3.000000	...	1975.000000
75%	6.762826e+09	42662.000000	4.000000	2.500000	2570.000000	1.080000e+04	2.000000	0.000000	0.000000	4.000000	...	1997.000000
max	6.762832e+09	42734.000000	33.000000	8.000000	13540.000000	1.074218e+06	3.500000	1.000000	4.000000	5.000000	...	2015.000000

8 rows x 23 columns

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```
vs['number of floors'].value_counts()
```

1.0	7103
2.0	5666
1.5	1311
3.0	418
2.5	118
3.5	4

Name: number of floors, dtype: int64

```
[ ] vs['Renovation Year'].value_counts()
```

0	13954
2014	76
2013	30
2003	27
2005	23
...	
1948	1
1967	1
1944	1
1959	1
1962	1

Name: Renovation Year, Length: 68, dtype: int64

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```
[ ] vs['Number of schools nearby'].value_counts()
```

3	4973
2	4853
1	4794

Name: Number of schools nearby, dtype: int64