

Deck of Tables

```
# Load json file to dataframe
filename = "transaction-data-adhoc-analysis.json"
df = pd.read_json(filename)
df
```

	address	birthdate	mail	name	sex	username	transaction_items	transaction_value	transaction_date
0	USNS Wagner\nFPO AE 00917	1926/03/11	watsonbrenda@gmail.com	Jennifer Campbell	F	veronicawells	Exotic Extras,Beef Chicharon,(x4)	5196	2022/01/12
1	USCGC Benson\nFPO AP 48794	2016/07/08	moorelisa@gmail.com	Melissa Kim	F	cgilbert	Exotic Extras,Beef Chicharon,(x3);HealthyKid 3...	12056	2022/01/12
2	USCGC Benson\nFPO AP 48794	2016/07/08	moorelisa@gmail.com	Melissa Kim	F	cgilbert	HealthyKid 3+,Gummy Vitamins,(x3);HealthyKid 3...	5500	2022/01/08
3	USCGC Benson\nFPO AP 48794	2016/07/08	moorelisa@gmail.com	Melissa Kim	F	cgilbert	HealthyKid 3+,Yummy Vegetables,(x1)	500	2022/01/10
4	33911 Hansen Loaf\nWest Sandra, ND 54188	1949/09/27	michael78@yahoo.com	Kristen Cooper	F	qhernandez	Candy City,Orange Beans,(x3);Candy City,Gummy ...	2697	2022/01/24
...
83031	96081 Harrison Brooks\nJenniferbury, MA 02124	2019/10/26	christina55@hotmail.com	Tammy Byrd	F	kmcconnell	Exotic Extras,Kimchi and Seaweed,(x2);HealthyK...	3588	2022/06/05
83032	428 Kristopher Curve Apt. 206\nMcculloughville...	1913/11/04	melvinschmidt@hotmail.com	Donald Andersen	M	llowe	HealthyKid 3+,Yummy Vegetables,(x1);Exotic Ext...	2095	2022/06/12
83033	428 Kristopher Curve Apt. 206\nMcculloughville...	1913/11/04	melvinschmidt@hotmail.com	Donald Andersen	M	llowe	Candy City,Orange Beans,(x4);Candy City,Gummy ...	3396	2022/06/15
83034	428 Kristopher Curve Apt. 206\nMcculloughville...	1913/11/04	melvinschmidt@hotmail.com	Donald Andersen	M	llowe	HealthyKid 3+,Nutritional Milk,(x2);Candy City,G...	4280	2022/06/09
83035	PSC 1089, Box 3720\nAPO AE 08973	2012/04/30	xjones@hotmail.com	Stephanie Russell	F	cmcdowell	HealthyKid 3+,Nutritional Milk,(x1);Candy City,G...	2639	2022/06/03

83036 rows × 9 columns

	Brand	Product	Quantity
0	Exotic Extras	Beef Chicharon	(x4)
1	Exotic Extras	Beef Chicharon	(x3)
2	HealthyKid 3+	Nutritional Milk	(x4)
3	Candy City	Orange Beans	(x1)
4	HealthyKid 3+	Gummy Vitamins	(x3)
...
166114	HealthyKid 3+	Nutritional Milk	(x2)
166115	Candy City	Gummy Worms	(x2)
166116	HealthyKid 3+	Nutritional Milk	(x1)
166117	Candy City	Gummy Worms	(x3)
166118	Candy City	Orange Beans	(x1)

166119 rows × 3 columns

	Year	Month	Day
0	2022	01	12
1	2022	01	12
2	2022	01	08
3	2022	01	10
4	2022	01	24
...
83031	2022	06	05
83032	2022	06	12
83033	2022	06	15
83034	2022	06	09
83035	2022	06	03

83036 rows × 3 columns

	Month
0	01
1	01
2	01
3	01
4	01
...	...
83031	06
83032	06
83033	06
83034	06
83035	06

83036 rows × 1 columns

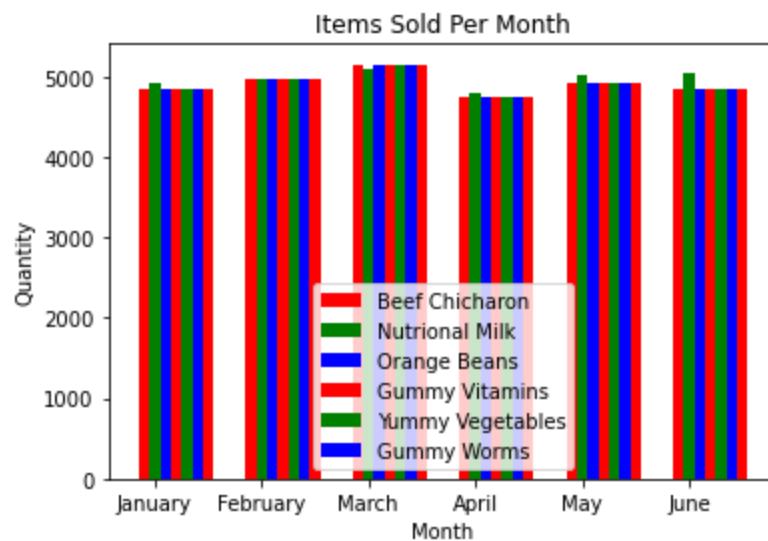
	Month	Brand	Product	Quantity
0	01	Exotic Extras	Beef Chicharon	(x4)
1	01	Exotic Extras	Beef Chicharon	(x3)
2	01	HealthyKid 3+	Nutrional Milk	(x4)
3	01	Candy City	Orange Beans	(x1)
4	01	HealthyKid 3+	Gummy Vitamins	(x3)

	Month	Brand	Product	Quantity
0	01	Exotic Extras	Beef Chicharon	4
1	01	Exotic Extras	Beef Chicharon	3
2	01	HealthyKid 3+	Nutrional Milk	4
3	01	Candy City	Orange Beans	1
4	01	HealthyKid 3+	Gummy Vitamins	3

	Month	Brand	Product	Quantity
0	01	Exotic Extras	Beef Chicharon	4
1	01	Exotic Extras	Beef Chicharon	3
2	01	HealthyKid 3+	Nutrional Milk	4
3	01	Candy City	Orange Beans	1
4	01	HealthyKid 3+	Gummy Vitamins	3

Month	Product	Brand	Quantity
01	Beef Chicharon	Exotic Extras	4856
	Gummy Vitamins	HealthyKid 3+	4907
	Gummy Worms	Candy City	4801
	Kimchi and Seaweed	Exotic Extras	4923
	Nutrional Milk	HealthyKid 3+	4854
	Orange Beans	Candy City	5059
	Yummy Vegetables	HealthyKid 3+	4978
02	Beef Chicharon	Exotic Extras	4979
	Gummy Vitamins	HealthyKid 3+	4959
	Gummy Worms	Candy City	4956
	Kimchi and Seaweed	Exotic Extras	4937
	Nutrional Milk	HealthyKid 3+	5037
	Orange Beans	Candy City	4885
	Yummy Vegetables	HealthyKid 3+	5175
03	Beef Chicharon	Exotic Extras	5150
	Gummy Vitamins	HealthyKid 3+	5083
	Gummy Worms	Candy City	4950
	Kimchi and Seaweed	Exotic Extras	4972
	Nutrional Milk	HealthyKid 3+	4746
	Orange Beans	Candy City	4836
	Yummy Vegetables	HealthyKid 3+	5086
04	Beef Chicharon	Exotic Extras	4745
	Gummy Vitamins	HealthyKid 3+	4806
	Gummy Worms	Candy City	4912
	Kimchi and Seaweed	Exotic Extras	4907
	Nutrional Milk	HealthyKid 3+	4859
	Orange Beans	Candy City	5140

	Yummy Vegetables	HealthyKid 3+	5054
05	Beef Chicharon	Exotic Extras	4926
	Gummy Vitamins	HealthyKid 3+	5030
	Gummy Worms	Candy City	5051
	Kimchi and Seaweed	Exotic Extras	4873
	Nutrional Milk	HealthyKid 3+	4974
	Orange Beans	Candy City	4744
	Yummy Vegetables	HealthyKid 3+	4961
06	Beef Chicharon	Exotic Extras	4849
	Gummy Vitamins	HealthyKid 3+	5050
	Gummy Worms	Candy City	4908
	Kimchi and Seaweed	Exotic Extras	5010
	Nutrional Milk	HealthyKid 3+	4859
	Orange Beans	Candy City	4779
	Yummy Vegetables	HealthyKid 3+	4891



	Month	Brand	Product	Quantity	transaction_value
0	01	Exotic Extras	Beef Chicharon	4	5196.0
1	01	Exotic Extras	Beef Chicharon	3	12056.0
2	01	HealthyKid 3+	Nutritional Milk	4	5500.0
3	01	Candy City	Orange Beans	1	500.0
4	01	HealthyKid 3+	Gummy Vitamins	3	2697.0

			Quantity	transaction_value
Month	Product	Brand		
01	Beef Chicharon	Exotic Extras	4856	8995181
	Gummy Vitamins	HealthyKid 3+	4907	9055587
	Gummy Worms	Candy City	4801	8564797
	Kimchi and Seaweed	Exotic Extras	4923	9159691
	Nutrional Milk	HealthyKid 3+	4854	8758669
	Orange Beans	Candy City	5059	8550704
	Yummy Vegetables	HealthyKid 3+	4978	9437936
02	Beef Chicharon	Exotic Extras	4979	8966888
	Gummy Vitamins	HealthyKid 3+	4959	8993410
	Gummy Worms	Candy City	4956	9040305
	Kimchi and Seaweed	Exotic Extras	4937	8975510
	Nutrional Milk	HealthyKid 3+	5037	9246059
	Orange Beans	Candy City	4885	9038793
	Yummy Vegetables	HealthyKid 3+	5175	9559438
03	Beef Chicharon	Exotic Extras	5150	9269679
	Gummy Vitamins	HealthyKid 3+	5083	9254508
	Gummy Worms	Candy City	4950	8976293
	Kimchi and Seaweed	Exotic Extras	4972	9167393
	Nutrional Milk	HealthyKid 3+	4746	8921327
	Orange Beans	Candy City	4836	9200190
	Yummy Vegetables	HealthyKid 3+	5086	9154456
04	Beef Chicharon	Exotic Extras	4745	8959610
	Gummy Vitamins	HealthyKid 3+	4806	8740608
	Gummy Worms	Candy City	4912	9306284
	Kimchi and Seaweed	Exotic Extras	4907	8819170
	Nutrional Milk	HealthyKid 3+	4859	9156120
	Orange Beans	Candy City	5140	9119146
	Yummy Vegetables	HealthyKid 3+	5054	9320027

05	Beef Chicharon	Exotic Extras	4926	8981636
	Gummy Vitamins	HealthyKid 3+	5030	9387627
	Gummy Worms	Candy City	5051	9569930
	Kimchi and Seaweed	Exotic Extras	4873	8893251
	Nutrional Milk	HealthyKid 3+	4974	9006873
	Orange Beans	Candy City	4744	8548527
	Yummy Vegetables	HealthyKid 3+	4961	9352831
06	Beef Chicharon	Exotic Extras	4849	8987634
	Gummy Vitamins	HealthyKid 3+	5050	9252118
	Gummy Worms	Candy City	4908	8763540
	Kimchi and Seaweed	Exotic Extras	5010	9260005
	Nutrional Milk	HealthyKid 3+	4859	9239757
	Orange Beans	Candy City	4779	9014616
	Yummy Vegetables	HealthyKid 3+	4891	9186648

	transaction_items	transaction_value
0	Exotic Extras,Beef Chicharon,(x4)	5196
3	HealthyKid 3+,Yummy Vegetables,(x1)	500
6	Exotic Extras,Kimchi and Seaweed,(x4)	3196
8	Candy City,Gummy Worms,(x1)	150
11	HealthyKid 3+,Gummy Vitamins,(x2)	3000
17	HealthyKid 3+,Yummy Vegetables,(x3)	1500
18	HealthyKid 3+,Nutrional Milk,(x3)	5970
19	Candy City,Orange Beans,(x3)	597
26	HealthyKid 3+,Yummy Vegetables,(x4)	2000
36	HealthyKid 3+,Gummy Vitamins,(x4)	6000
41	Candy City,Gummy Worms,(x2)	300
51	HealthyKid 3+,Nutrional Milk,(x4)	7960
53	Exotic Extras,Beef Chicharon,(x3)	3897
55	Exotic Extras,Beef Chicharon,(x1)	1299
57	Exotic Extras,Beef Chicharon,(x4)	5196
61	Exotic Extras,Kimchi and Seaweed,(x1)	799
63	Exotic Extras,Beef Chicharon,(x3)	3897
68	HealthyKid 3+,Gummy Vitamins,(x3)	4500
69	HealthyKid 3+,Gummy Vitamins,(x2)	3000
70	Candy City,Orange Beans,(x3)	597

	Month	Brand	Product	Quantity	transaction_value	Price
0	01	Exotic Extras	Beef Chicharon	4	5196	1299
1	01	Exotic Extras	Beef Chicharon	3	12056	1299
2	01	HealthyKid 3+	Nutrional Milk	4	5500	1990
3	01	Candy City	Orange Beans	1	500	199
4	01	HealthyKid 3+	Gummy Vitamins	3	2697	1500
...
166114	NaN	HealthyKid 3+	Nutrional Milk	2	0	1990
166115	NaN	Candy City	Gummy Worms	2	0	150
166116	NaN	HealthyKid 3+	Nutrional Milk	1	0	1990
166117	NaN	Candy City	Gummy Worms	3	0	150
166118	NaN	Candy City	Orange Beans	1	0	199

166119 rows × 6 columns

	Month	Brand	Product	Quantity	transaction_value	Price	Sales
0	01	Exotic Extras	Beef Chicharon	4	5196	1299	5196
1	01	Exotic Extras	Beef Chicharon	3	12056	1299	3897
2	01	HealthyKid 3+	Nutrional Milk	4	5500	1990	7960
3	01	Candy City	Orange Beans	1	500	199	199
4	01	HealthyKid 3+	Gummy Vitamins	3	2697	1500	4500
...
166114	NaN	HealthyKid 3+	Nutrional Milk	2	0	1990	3980
166115	NaN	Candy City	Gummy Worms	2	0	150	300
166116	NaN	HealthyKid 3+	Nutrional Milk	1	0	1990	1990
166117	NaN	Candy City	Gummy Worms	3	0	150	450
166118	NaN	Candy City	Orange Beans	1	0	199	199

166119 rows × 7 columns

Month	Product	Brand	Price	Quantity	Sales
01	Beef Chicharon	Exotic Extras	1299	4856	6307944
	Gummy Vitamins	HealthyKid 3+	1500	4907	7360500
	Gummy Worms	Candy City	150	4801	720150
	Kimchi and Seaweed	Exotic Extras	799	4923	3933477
	Nutrional Milk	HealthyKid 3+	1990	4854	9659460
	Orange Beans	Candy City	199	5059	1006741
	Yummy Vegetables	HealthyKid 3+	500	4978	2489000
02	Beef Chicharon	Exotic Extras	1299	4979	6467721
	Gummy Vitamins	HealthyKid 3+	1500	4959	7438500
	Gummy Worms	Candy City	150	4956	743400
	Kimchi and Seaweed	Exotic Extras	799	4937	3944663
	Nutrional Milk	HealthyKid 3+	1990	5037	10023630
	Orange Beans	Candy City	199	4885	972115
	Yummy Vegetables	HealthyKid 3+	500	5175	2587500
03	Beef Chicharon	Exotic Extras	1299	5150	6689850
	Gummy Vitamins	HealthyKid 3+	1500	5083	7624500
	Gummy Worms	Candy City	150	4950	742500
	Kimchi and Seaweed	Exotic Extras	799	4972	3972628
	Nutrional Milk	HealthyKid 3+	1990	4746	9444540
	Orange Beans	Candy City	199	4836	962364
	Yummy Vegetables	HealthyKid 3+	500	5086	2543000

04	Beef Chicharon	Exotic Extras	1299	4745	6163755
	Gummy Vitamins	HealthyKid 3+	1500	4806	7209000
	Gummy Worms	Candy City	150	4912	736800
	Kimchi and Seaweed	Exotic Extras	799	4907	3920693
	Nutrional Milk	HealthyKid 3+	1990	4859	9669410
	Orange Beans	Candy City	199	5140	1022860
	Yummy Vegetables	HealthyKid 3+	500	5054	2527000
05	Beef Chicharon	Exotic Extras	1299	4926	6398874
	Gummy Vitamins	HealthyKid 3+	1500	5030	7545000
	Gummy Worms	Candy City	150	5051	757650
	Kimchi and Seaweed	Exotic Extras	799	4873	3893527
	Nutrional Milk	HealthyKid 3+	1990	4974	9898260
	Orange Beans	Candy City	199	4744	944056
	Yummy Vegetables	HealthyKid 3+	500	4961	2480500
06	Beef Chicharon	Exotic Extras	1299	4849	6298851
	Gummy Vitamins	HealthyKid 3+	1500	5050	7575000
	Gummy Worms	Candy City	150	4908	736200
	Kimchi and Seaweed	Exotic Extras	799	5010	4002990
	Nutrional Milk	HealthyKid 3+	1990	4859	9669410
	Orange Beans	Candy City	199	4779	951021
	Yummy Vegetables	HealthyKid 3+	500	4891	2445500

	Month	name
0	01	Jennifer Campbell
1	01	Melissa Kim
2	01	Melissa Kim
3	01	Melissa Kim
4	01	Kristen Cooper
...
166114	NaN	NaN
166115	NaN	NaN
166116	NaN	NaN
166117	NaN	NaN
166118	NaN	NaN

	Month	name
0	01	Jennifer Campbell, Melissa Kim, Melissa Kim, M...
1	02	Jennifer Campbell, Jennifer Campbell, Melissa ...
2	03	Jennifer Campbell, Melissa Kim, Melissa Kim, K...
3	04	Melissa Kim, Kristen Cooper, Alexander Davis, ...
4	05	Melissa Kim, Melissa Kim, Melissa Kim, Kristen...
5	06	Jennifer Campbell, Jennifer Campbell, Alexande...