In [1]:
```
import numpy as np
import pandas as pd
```

In [2]:
```
df = pd.read_csv('QVI_data.csv')
```

In [3]:
```
df.head()
```

Out[3]:

	LYLTY_CARD_NBR	DATE	STORE_NBR	TXN_ID	PROD_NBR	PROD_NAME	PROD_QT
0	1000	2018-10-17	1	1	5	Natural Chip Compny SeaSalt175g	
1	1002	2018-09-16	1	2	58	Red Rock Deli Chikn&Garlic Aioli 150g	
2	1003	2019-03-07	1	3	52	Grain Waves Sour Cream&Chives 210G	
3	1003	2019-03-08	1	4	106	Natural ChipCo Hony Soy Chckn175g	
4	1004	2018-11-02	1	5	96	WW Original Stacked Chips 160g	

In [4]:
```
total_sales = sum(df['TOT_SALES'])
```

In [5]:
```
print(total_sales)
```

```
1933115.0
```

In [6]:
```
df.describe()
```

Out[6]:

	LYLTY_CARD_NBR	STORE_NBR	TXN_ID	PROD_NBR	PROD_QTY	
count	2.648340e+05	264834.000000	2.648340e+05	264834.000000	264834.000000	2
mean	1.355488e+05	135.079423	1.351576e+05	56.583554	1.905813	
std	8.057990e+04	76.784063	7.813292e+04	32.826444	0.343436	
min	1.000000e+03	1.000000	1.000000e+00	1.000000	1.000000	
25%	7.002100e+04	70.000000	6.760050e+04	28.000000	2.000000	
50%	1.303570e+05	130.000000	1.351365e+05	56.000000	2.000000	
75%	2.030940e+05	203.000000	2.026998e+05	85.000000	2.000000	
max	2.373711e+06	272.000000	2.415841e+06	114.000000	5.000000	

In [7]:
```
total_customer = 241584
```

In [8]:
```
df.shape
```

Out[8]: (264834, 12)

In [9]:
```
avg_trans = total_customer/264834
```

In [10]:
```
print(avg_trans)
```

```
0.9122091574344684
```