In [4]:

```
import numpy as np
import pandas as pd
df =pd.read_csv(r"C:\Users\91950\Downloads\Salesworkload1.csv")
df
```

Out[4]:

	MonthYear	Time index	Country	StoreID	City	Dept_ID	Dept. Name	HoursOwn	Hou
0	10.2016	1.0	United Kingdom	88253.0	London (I)	1.0	Dry	3184.764	
1	10.2016	1.0	United Kingdom	88253.0	London (I)	2.0	Frozen	1582.941	
2	10.2016	1.0	United Kingdom	88253.0	London (I)	3.0	other	47.205	
3	10.2016	1.0	United Kingdom	88253.0	London (I)	4.0	Fish	1623.852	
4	10.2016	1.0	United Kingdom	88253.0	London (I)	5.0	Fruits & Vegetables	1759.173	
...	...	...	...	...	...	...	...	...	
7653	06.2017	9.0	Sweden	29650.0	Gothenburg	12.0	Checkout	6322.323	
7654	06.2017	9.0	Sweden	29650.0	Gothenburg	16.0	Customer Services	4270.479	
7655	06.2017	9.0	Sweden	29650.0	Gothenburg	11.0	Delivery	0	
7656	06.2017	9.0	Sweden	29650.0	Gothenburg	17.0	others	2224.929	
7657	06.2017	9.0	Sweden	29650.0	Gothenburg	18.0	all	39652.2	

7658 rows × 14 columns

In [5]:

```
df.head(18)
```

Out[5]:

	MonthYear	Time index	Country	StoreID	City	Dept_ID	Dept. Name	HoursOwn	HoursI
0	10.2016	1.0	United Kingdom	88253.0	London (I)	1.0	Dry	3184.764	
1	10.2016	1.0	United Kingdom	88253.0	London (I)	2.0	Frozen	1582.941	
2	10.2016	1.0	United Kingdom	88253.0	London (I)	3.0	other	47.205	
3	10.2016	1.0	United Kingdom	88253.0	London (I)	4.0	Fish	1623.852	
4	10.2016	1.0	United Kingdom	88253.0	London (I)	5.0	Fruits & Vegetables	1759.173	
5	10.2016	1.0	United Kingdom	88253.0	London (I)	6.0	Meat	8270.316	
6	10.2016	1.0	United Kingdom	88253.0	London (I)	13.0	Food	16468.251	
7	10.2016	1.0	United Kingdom	88253.0	London (I)	7.0	Clothing	4698.471	
8	10.2016	1.0	United Kingdom	88253.0	London (I)	8.0	Household	1183.272	
9	10.2016	1.0	United Kingdom	88253.0	London (I)	9.0	Hardware	2029.815	
10	10.2016	1.0	United Kingdom	88253.0	London (I)	14.0	Non Food	7911.558	
11	10.2016	1.0	United Kingdom	88253.0	London (I)	15.0	Admin	4308.243	
12	10.2016	1.0	United Kingdom	88253.0	London (I)	12.0	Checkout	5825.097	
13	10.2016	1.0	United Kingdom	88253.0	London (I)	16.0	Customer Services	3320.085	
14	10.2016	1.0	United Kingdom	88253.0	London (I)	11.0	Delivery	0	
15	10.2016	1.0	United Kingdom	88253.0	London (I)	17.0	others	2253.252	
16	10.2016	1.0	United Kingdom	88253.0	London (I)	18.0	all	40086.486	
17	10.2016	1.0	United Kingdom	38976.0	Manchester	1.0	Dry	2583.687	

In [6]:

```
df.tail(10)
```

Out[6]:

	MonthYear	Time index	Country	StoreID	City	Dept_ID	Dept. Name	HoursOwn	Hour
7648	06.2017	9.0	Sweden	29650.0	Gothenburg	7.0	Clothing	3587.58	
7649	06.2017	9.0	Sweden	29650.0	Gothenburg	8.0	Household	1312.299	
7650	06.2017	9.0	Sweden	29650.0	Gothenburg	9.0	Hardware	1598.676	
7651	06.2017	9.0	Sweden	29650.0	Gothenburg	14.0	Non Food	6498.555	
7652	06.2017	9.0	Sweden	29650.0	Gothenburg	15.0	Admin	3433.377	
7653	06.2017	9.0	Sweden	29650.0	Gothenburg	12.0	Checkout	6322.323	
7654	06.2017	9.0	Sweden	29650.0	Gothenburg	16.0	Customer Services	4270.479	
7655	06.2017	9.0	Sweden	29650.0	Gothenburg	11.0	Delivery	0	
7656	06.2017	9.0	Sweden	29650.0	Gothenburg	17.0	others	2224.929	
7657	06.2017	9.0	Sweden	29650.0	Gothenburg	18.0	all	39652.2	

In [7]:

```
df.describe()
```

Out[7]:

	Time index	StoreID	Dept_ID	HoursLease	Sales units	Turnover	Cu
count	7650.000000	7650.000000	7650.000000	7650.000000	7.650000e+03	7.650000e+03	
mean	5.000000	61995.220000	9.470588	22.036078	1.076471e+06	3.721393e+06	
std	2.582158	29924.581631	5.337429	133.299513	1.728113e+06	6.003380e+06	
min	1.000000	12227.000000	1.000000	0.000000	0.000000e+00	0.000000e+00	
25%	3.000000	29650.000000	5.000000	0.000000	5.457125e+04	2.726798e+05	
50%	5.000000	75400.500000	9.000000	0.000000	2.932300e+05	9.319575e+05	
75%	7.000000	87703.000000	14.000000	0.000000	9.175075e+05	3.264432e+06	
max	9.000000	98422.000000	18.000000	3984.000000	1.124296e+07	4.271739e+07	

In [8]:

```
df.shape
```

Out[8]:

```
(7658, 14)
```

In [ ]:

```

```