In [66]:
```
import re
import csv
import pandas as pd
```

Count number of products sold for a certain brand

In [67]:
```
df = pd.read_csv('WB.csv')
```

In [68]:
```
df.info()
df.head()
df[:10]
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 61430 entries, 0 to 61429
Data columns (total 7 columns):
 #   Column                       Non-Null Count  Dtype 
---  ------                       --------------  ----- 
 0   Requisition ID               61430 non-null  object
 1   Requisitioning Date          61430 non-null  object
 2   Supplier - ERP Supplier      61430 non-null  object
 3   Description                  61430 non-null  object
 4   Requester - Shopper ID       61430 non-null  object
 5   Part - Supplier Part Number  61430 non-null  object
 6   Category                     61430 non-null  object
dtypes: object(7)
memory usage: 3.3+ MB
```

Out[68]:

	Requisition ID	Requisitioning Date	Supplier - ERP Supplier	Description	Requester - Shopper ID	Part - Supplier Part Number	Category
0	PR8853	9/8/2020	WB Mason Company	952 Ink Cartridges - Cyan, Magenta, Yellow, 3 ...	AMBERFW	HEWN9K27AN	Toner
1	PR32062	1/5/2021	WB Mason Company	61XL Ink Cartridge, Black (CH563WN)	TWARE	HEWCH563WN	Toner
2	PR12682	9/24/2020	WB Mason Company	63 Ink Cartridges - Black, Tri-color, 2 Cartri...	SARAHBF	HEWL0R46AN	Toner
3	PR31013	12/21/2020	WB Mason Company	62 Ink Cartridge, Black (C2P04AN)	JGGOMEZ	HEWC2P04AN	Toner
4	PR28465	12/9/2020	WB Mason Company	962XL Ink Cartridge, Black (3JA03AN)	TAFELSKI	HEW3JA03AN	Toner
5	PR22162	11/10/2020	WB Mason Company	950XL Ink Cartridge, Black (CN045AN)	SGSMITH	HEWCN045AN	Toner
6	PR37770	1/28/2021	WB Mason Company	60XL Ink Cartridge, Tri-color (CC644WN)	CHRISQL	HEWCC644WN	Toner
7	PR25272	11/23/2020	WB Mason Company	63 Ink Cartridges - Black, Tri-color, 2 Cartri...	SARAHBF	HEWL0R46AN	Toner
8	PR24179-V2	11/18/2020	WB Mason Company	62XL Ink Cartridge, Black (C2P05AN)	KSTEFANI	HEWC2P05AN	Toner
9	PR22042	11/9/2020	WB Mason Company	PGI-280/CLI-281 Ink Cartridge - Pigment Black,...	ORTIZEB	CNM2075C006	Toner

In [45]:
```
df = df.loc[:, ('Description', 'Part - Supplier Part Number')]
df[:10]
```

Out[45]:

	Description	Part - Supplier Part Number
0	952 Ink Cartridges - Cyan, Magenta, Yellow, 3 ...	HEWN9K27AN
1	61XL Ink Cartridge, Black (CH563WN)	HEWCH563WN
2	63 Ink Cartridges - Black, Tri-color, 2 Cartri...	HEWL0R46AN
3	62 Ink Cartridge, Black (C2P04AN)	HEWC2P04AN
4	962XL Ink Cartridge, Black (3JA03AN)	HEW3JA03AN
5	950XL Ink Cartridge, Black (CN045AN)	HEWCN045AN
6	60XL Ink Cartridge, Tri-color (CC644WN)	HEWCC644WN
7	63 Ink Cartridges - Black, Tri-color, 2 Cartri...	HEWL0R46AN
8	62XL Ink Cartridge, Black (C2P05AN)	HEWC2P05AN
9	PGI-280/CLI-281 Ink Cartridge - Pigment Black,...	CNM2075C006

Ground Coffee Sold (Decreasing order)

In [46]:
```
df=df[df['Description'].str.contains("Ground Coffee")]
```

In [47]:
```
 df.insert(df.shape[1], 'Supplier Name', 0)
df.info()
# df['Part - Supplier Part Number'] = df['Part - Supplier Part Number'
].str[:3]
df[:3]
```

```
<class 'pandas.core.frame.DataFrame'>
Int64Index: 153 entries, 52494 to 61397
Data columns (total 3 columns):
 #   Column                       Non-Null Count  Dtype 
---  ------                       --------------  ----- 
 0   Description                  153 non-null    object
 1   Part - Supplier Part Number  153 non-null    object
 2   Supplier Name                153 non-null    int64 
dtypes: int64(1), object(2)
memory usage: 4.8+ KB
```

Out[47]:

	Description	Part - Supplier Part Number	Supplier Name
52494	Coffee, Decaffeinated Ground Coffee, 29.3 oz Can	MWH04658	0
52529	Caffe Espresso Ground Coffee, Dark Roast, 8 oz...	LAV1450	0
52645	C-59872851|5823475603|Ground Coffee, French Ro...	KRF04352	0

In [49]:
```
norepeat_df = df.drop_duplicates(subset=['Part - Supplier Part Number'
], keep='first')
norepeat_df.to_csv('ground coffee.csv')
```

In [ ]:
```
df.loc[df['Part - Supplier Part Number'].str.contains('MWH')]
```

Ground Coffee Sold (Decreasing order)

In [82]:
```
df = pd.read_csv('WB.csv')
df = df.loc[:, ('Description', 'Part - Supplier Part Number')]
df=df[df['Description'].str.contains("Ground Coffee")]
df.insert(df.shape[1], 'Supplier Name', 0)
print(df['Part - Supplier Part Number'].value_counts())
df = df['Part - Supplier Part Number'].value_counts()[:10]
#norepeat_df = df.drop_duplicates(subset=['Part - Supplier Part Number
'], keep='first')
df.to_csv('Ground Coffee.csv')
```

```
SMU1014962    45
EIG320820     24
INT121199      8
KRF04358       8
SMU0136        6
WGP013663      5
SMU0048        4
FOL00374       4
GMT037120      4
LAV1450        4
GMT037134      4
SMU0681        4
LAV7511        3
KRF04352       3
INT165230      3
MWH04658       3
FOL20672       3
SMU0680        2
SMU0679        2
PEE504874      2
SMU0046        2
SMU0076        2
LAV2709        1
JAV4066        1
SMU0147        1
SMU0279        1
SMU0988        1
SMU0049        1
SMU0678        1
JAV4097        1
Name: Part - Supplier Part Number, dtype: int64
```

K-cup Sold (Decreasing order)

In [83]:
```
df = pd.read_csv('WB.csv')
df = df.loc[:, ('Description', 'Part - Supplier Part Number')]
df=df[df['Description'].str.contains("K-Cup")]
df.insert(df.shape[1], 'Supplier Name', 0)
print(df['Part - Supplier Part Number'].value_counts())
df = df['Part - Supplier Part Number'].value_counts()[:10]
#norepeat_df = df.drop_duplicates(subset=['Part - Supplier Part Number
'], keep='first')
df.to_csv('K-cup.csv')
```

```
GMT6520          2534
GMT4061          2378
GMT6663          1616
GMT6732          1293
GMT6792          1124
                 ...
TWG12080            1
Unclassified        1
GMT0040             1
GMT5476             1
GMT7605             1
Name: Part - Supplier Part Number, Length: 247, dtype: int64
```

Coffee Creamer Sold (Decreasing order)

In [84]:
```
df = pd.read_csv('WB.csv')
df = df.loc[:, ('Description', 'Part - Supplier Part Number')]
df=df[df['Description'].str.contains("Coffee Creamer")]
df.insert(df.shape[1], 'Supplier Name', 0)
print(df['Part - Supplier Part Number'].value_counts())
df = df['Part - Supplier Part Number'].value_counts()[:10]
#norepeat_df = df.drop_duplicates(subset=['Part - Supplier Part Number
'], keep='first')
df.to_csv('Coffee_Creamer.csv')
```

```
NES753032     776
NES35110BX    450
NES35170BX    292
NES35010      209
ITD102042     132
NES35180BX    130
ITD102041      93
NES79129BX     73
NES13799       72
NES35115       65
NES30212       60
NES84652       56
NES35070       52
NES42498       34
ITD100680      33
NES91757       31
```

```
NJO827783      26
NES31803       26
ITD02284       25
NES55882       25
NES35080       25
ITD02282       15
OFX00020       12
ITD827981      11
NES75520       11
ITD02283       10
NES35112       10
ITD100722       8
ITD827965       8
NES31831        8
ITD100681       7
NES35775        6
IDL100708       5
NES77197        5
ITD101766       5
NES35115CT      4
ITD102579       4
DMN0700         4
ITD100709       4
NES68613        4
NES18447        3
NES30032CT      3
NES02441        3
NES79129CT      3
NES45773        3
NES22075        2
NES12345        2
NJO90780        1
OFX00020G       1
NES17570        1
NES30032        1
NES42498CT      1
NJO94255        1
MKL11778        1
NES38771        1
NES76060        1
NES30302        1
Name: Part - Supplier Part Number, dtype: int64
```

Hot Cups Sold (Decreasing order)

In [85]:
```
df = pd.read_csv('WB.csv')
df = df.loc[:, ('Description', 'Part - Supplier Part Number')]
df=df[df['Description'].str.contains("Hot Cups")]
df.insert(df.shape[1], 'Supplier Name', 0)
print(df['Part - Supplier Part Number'].value_counts())
df = df['Part - Supplier Part Number'].value_counts()[:10]
#norepeat_df = df.drop_duplicates(subset=['Part - Supplier Part Number
'], keep='first')
df.to_csv('Hot Cups.csv')
```

```
DXE5342DX       394
DXE5342CDPK     369
DXE5356CD       350
DXE5342CD       208
DXE5310DX       139
DXE5338CDPK     138
DXE5310DXPK     123
DXE5338CD        44
BGC461571        37
DXE5356DX        31
DXE5338DX        22
PME75000244      21
PME75000242      19
DXE5360CD         6
DXED9542          6
PME75000243       3
DXE5356CDCT       1
Unclassified      1
PME75000241       1
Name: Part - Supplier Part Number, dtype: int64
```

Toner Sold (Decreasing order)

In [89]:
```
df = pd.read_csv('WB.csv')
df = df.loc[:, ('Description', 'Part - Supplier Part Number')]
df=df[df['Description'].str.contains("Ink Cartridge")]
df.insert(df.shape[1], 'count', 0)
print(df['Part - Supplier Part Number'].value_counts())
df['Part - Supplier Part Number'] = df['Part - Supplier Part Number'].
value_counts()[:10]
#norepeat_df = df.drop_duplicates(subset=['Part - Supplier Part Number
'], keep='first')
df.to_csv('Ink Cartridge.csv')
```

```
HEWCR314FN     314
HEWCN045AN     301
HEWF6U19AN     112
HEWN9K27AN      89
HEWCN046AN      89
               ...
CNM6385B002      1
HEWC4871A        1
HEWCH568A        1
HEWC4844A        1
HEWCN624AM       1
Name: Part - Supplier Part Number, Length: 233, dtype: int64
```

Total cost that different departments spent on K-cups and Bagged Coffee

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

In [2]:
```
#Preprocessing data
df = pd.read_excel('d1.xlsx')
df=df[df['Category'].str.contains("Coffee")]
df1 = df['Description'].str.split(',',expand=True)
df2 = df.drop('Description',axis=1).join(df1)
df2.rename(columns={0:'cato1'},inplace=True)
df2 = df2.loc[:, ('Product P/N (Vendor)','Unit name','Total Paid','Category','cato1')]
df2[:50]
```

Out[2]:

	Product P/N (Vendor)	Unit name	Total Paid	Category	cato1
0	GMT6505	ADMINISTRATIVE SERVICES	19.68	Coffee	C-66920349|5853096957|Tea K-Cups Sampler
1	NES35110BX	ADMINISTRATIVE SERVICES	8.94	Coffee	Original Liquid Coffee Creamer
		INFORMATION			

2	GMT4050	SERVICES & TECHNOLOGY	10.32	Coffee	Newman's Special Blend K-Cup Pods
3	ITD102042	INFORMATION SERVICES & TECHNOLOGY	28.52	Coffee	Half AND Half Liquid Coffee Creamer
12	NES35170BX	BUMC FACILITIES MANAGEMENT	6.90	Coffee	French Vanilla Liquid Coffee Creamer
13	NES35180BX	BUMC FACILITIES MANAGEMENT	6.90	Coffee	Hazelnut Liquid Coffee Creamer
18	DIE60052101	PHYSICAL DEVELOPMENT PROGRAMS & ATHLETIC	30.96	Coffee	Donut Shop Coffee K-Cup Pods
19	GMT14731	PROVOST	29.52	Coffee	English Breakfast Black Tea K-Cup Pods
20	GMT4061	PHYSICAL DEVELOPMENT PROGRAMS & ATHLETIC	20.64	Coffee	Dark Magic Extra Bold Coffee K-Cup Pods
21	GMT6545	PHYSICAL DEVELOPMENT PROGRAMS & ATHLETIC	21.61	Coffee	C-24871677|5751038288|French Roast Coffee K-Cu...
22	GMT6792	PROVOST	20.64	Coffee	Hazelnut Coffee K-Cup Pods
25	NES35170BX	QUESTROM SCHOOL OF BUSINESS (QST)	3.45	Coffee	French Vanilla Liquid Coffee Creamer
26	SBK11018185	COLLEGE OF ARTS AND SCIS (CAS)	36.60	Coffee	Coffee
27	SBK11018186	COLLEGE OF ARTS AND SCIS (CAS)	36.60	Coffee	Coffee
28	GMT6520	HENRY M GOLDMAN SCH OF DENTAL MED (GSDM)	10.32	Coffee	Breakfast Blend Coffee K-Cup Pods
29	GMT6732	HENRY M GOLDMAN SCH OF DENTAL MED (GSDM)	10.32	Coffee	French Vanilla Coffee K-Cup Pods
30	DIE60052101	INFORMATION SERVICES & TECHNOLOGY	10.32	Coffee	Donut Shop Coffee K-Cup Pods
31	DXE5342CDPK	HENRY M GOLDMAN SCH OF DENTAL MED (GSDM)	4.00	Coffee	C-31568461|5782067773|PerfecTouch Hot Cups
32	GMT4050	INFORMATION SERVICES & TECHNOLOGY	10.32	Coffee	Newman's Special Blend K-Cup Pods
33	GMT4061	INFORMATION SERVICES & TECHNOLOGY	10.32	Coffee	Dark Magic Extra Bold Coffee K-Cup Pods
		HENRY M GOLDMAN			C-22668816|5740860106|Dark

34	GMT4067	SCH OF DENTAL MED (GSDM)	10.32	Coffee	Magic Decaf Extra B...
35	GMT6406	INFORMATION SERVICES & TECHNOLOGY	11.28	Coffee	C-65316246|5846393456|Hazelnut Coffee K-Cup Pods
36	GMT6700	CENTRAL ADMINISTRATION	10.32	Coffee	Caramel Vanilla Cream Coffee K-Cup Pods
37	GMT6732	CENTRAL ADMINISTRATION	10.32	Coffee	French Vanilla Coffee K-Cup Pods
38	GMT6758	INFORMATION SERVICES & TECHNOLOGY	10.32	Coffee	Seasonal Selections Pumpkin Spice Flavored Cof...
39	GMT6813	CENTRAL ADMINISTRATION	11.28	Coffee	Caf Caramel K-Cup Pods
40	GMT7534	HENRY M GOLDMAN SCH OF DENTAL MED (GSDM)	13.15	Coffee	C-30467505|5777033708|Donut House Decaf Coffee...
41	GMT9577	CENTRAL ADMINISTRATION	13.44	Coffee	Veranda Blend Coffee K-Cups Pods
42	BUNBCF100B	COLLEGE OF ARTS AND SCIS (CAS)	1.59	Coffee	C-67095452|5853839401|Coffee Filters
43	MWH04648	COLLEGE OF ARTS AND SCIS (CAS)	7.63	Coffee	Coffee
44	GMT192919	GENERAL ED SUPPORT & ACADEMIC INITIATIVS	10.32	Coffee	C-31007345|5779523636|House Blend Coffee K-Cup...
45	GMT4050	GENERAL ED SUPPORT & ACADEMIC INITIATIVS	20.64	Coffee	Newman's Special Blend K-Cup Pods
46	GMT4061	GENERAL ED SUPPORT & ACADEMIC INITIATIVS	10.32	Coffee	Dark Magic Extra Bold Coffee K-Cup Pods
47	GMT6505	GENERAL ED SUPPORT & ACADEMIC INITIATIVS	19.68	Coffee	C-66920349|5853096957|Tea K-Cups Sampler
48	GMT6613	GENERAL ED SUPPORT & ACADEMIC INITIATIVS	20.64	Coffee	C-27903944|5764853562|Colombia K-Cup Pods
49	GMT6614	GENERAL ED SUPPORT & ACADEMIC INITIATIVS	10.32	Coffee	Italian Roast K-Cup Pods
50	GMT6792	GENERAL ED SUPPORT & ACADEMIC INITIATIVS	20.64	Coffee	Hazelnut Coffee K-Cup Pods
51	NES35110BX	GENERAL ED SUPPORT & ACADEMIC INITIATIVS	5.96	Coffee	Original Liquid Coffee Creamer
52	NES35170BX	GENERAL ED SUPPORT & ACADEMIC INITIATIVS	3.45	Coffee	French Vanilla Liquid Coffee Creamer
53	NES35180BX	GENERAL ED SUPPORT & ACADEMIC INITIATIVS	3.45	Coffee	Hazelnut Liquid Coffee Creamer
54	SBK11018193	THE BU ACADEMY	55.44	Coffee	C-63497833|5838514224|Coffee
57	DXE5342CDPK	HENRY M GOLDMAN SCH OF DENTAL MED (GSDM)	4.00	Coffee	C-31568461|5782067773|PerfecTouch Hot Cups

58	FOL20631	COLLEGE OF ARTS AND SCIS (CAS)	7.51	Coffee	C-24893732|5751142079|Coffee
59	GMT1243	HENRY M GOLDMAN SCH OF DENTAL MED (GSDM)	13.15	Coffee	C-19995668|5728638537|100% Columbian Coffee K-...
60	GMT1266	HENRY M GOLDMAN SCH OF DENTAL MED (GSDM)	13.15	Coffee	C-24896448|5751154779|Espresso Style K-Cup Pods
61	GMT14734	PHYSICAL DEVELOPMENT PROGRAMS & ATHLETIC	9.84	Coffee	Green Tea K-Cup Pods
62	GMT4050	HENRY M GOLDMAN SCH OF DENTAL MED (GSDM)	10.32	Coffee	Newman's Special Blend K-Cup Pods
63	GMT4061	GLOBAL PROGRAMS	20.64	Coffee	Dark Magic Extra Bold Coffee K-Cup Pods
64	GMT6080	CENTRAL ADMINISTRATION	9.84	Coffee	English Breakfast Tea K-Cup Pods
65	GMT6082	CENTRAL ADMINISTRATION	9.84	Coffee	C-74438575|5881900948|Earl Grey Tea K-Cup Pods

In [3]:
```
df3=df2[df2['cato1'].str.contains("K-Cup")]
df3 = df3.loc[:, ('Product P/N (Vendor)','Unit name','Total Paid','cato1')]
df3[:10]
```

Out[3]:

	Product P/N (Vendor)	Unit name	Total Paid	cato1
0	GMT6505	ADMINISTRATIVE SERVICES	19.68	C-66920349|5853096957|Tea K-Cups Sampler
2	GMT4050	INFORMATION SERVICES & TECHNOLOGY	10.32	Newman's Special Blend K-Cup Pods
18	DIE60052101	PHYSICAL DEVELOPMENT PROGRAMS & ATHLETIC	30.96	Donut Shop Coffee K-Cup Pods
19	GMT14731	PROVOST	29.52	English Breakfast Black Tea K-Cup Pods
20	GMT4061	PHYSICAL DEVELOPMENT PROGRAMS & ATHLETIC	20.64	Dark Magic Extra Bold Coffee K-Cup Pods
21	GMT6545	PHYSICAL DEVELOPMENT PROGRAMS & ATHLETIC	21.61	C-24871677|5751038288|French Roast Coffee K-Cu...
22	GMT6792	PROVOST	20.64	Hazelnut Coffee K-Cup Pods
28	GMT6520	HENRY M GOLDMAN SCH OF DENTAL MED (GSDM)	10.32	Breakfast Blend Coffee K-Cup Pods
29	GMT6732	HENRY M GOLDMAN SCH OF DENTAL MED (GSDM)	10.32	French Vanilla Coffee K-Cup Pods
30	DIE60052101	INFORMATION SERVICES & TECHNOLOGY	10.32	Donut Shop Coffee K-Cup Pods

In [4]:
```
#Total K-cups bought by different departments
df5=df3['Unit name'].value_counts()
df5
```

Out[4]:
```
HENRY M GOLDMAN SCH OF DENTAL MED (GSDM)    3013
SCHOOL OF MEDICINE (BUSM)                   2744
GENERAL ED SUPPORT & ACADEMIC INITIATIVS    2251
COLLEGE OF ARTS AND SCIS (CAS)              1981
ADMINISTRATIVE SERVICES                     1746
ENROLLMENT & STUDENT AFFAIRS                1436
SCHOOL OF PUBLIC HEALTH (SPH)               1290
CRC FACILITIES MANAGEMENT & PLANNING        1253
VICE PRESIDENT FINANCE                      1229
METROPOLITAN COLLEGE (MET)                  1222
INFORMATION SERVICES & TECHNOLOGY           1106
ACADEMIC INSTITUTES & CENTERS                941
SCHOOL OF LAW (LAW)                          917
PHYSICAL DEVELOPMENT PROGRAMS & ATHLETIC     885
PROVOST                                      879
UNIV PROFESSORS-HONORS COLLEGE               745
QUESTROM SCHOOL OF BUSINESS (QST)            713
MEDICAL CAMPUS ADMINISTRATION (BUMC)         698
UNIVERSITY LIBRARIES                         656
GRADUATE MEDICAL SCIENCES (GMS)              599
SARGENT COLLEGE OF HEALTH & REHAB. SCI.      546
COLLEGE OF FINE ARTS (CFA)                   502
```

```
WHEELOCK COLLEGE OF EDUC & HUMAN DEVELOP     464
EVENTS & CONFERENCES                         450
CRC RENTAL PROPERTIES                        444
NBL ACADEMIC PLANT                           415
PARDEE SCHOOL OF GLOBAL STUDIES              401
COLLEGE OF ENGINEERING (ENG)                 385
SCHOOL OF THEOLOGY (STH)                     365
CENTRAL ADMINISTRATION                       349
HUMAN RESOURCES                              344
MET & EXTENDED EDUCATION ADMINISTRATION      310
STUDENT LIFE                                 304
NATL EMERGING INFECTIOUS DIS LAB (NEIDL)     287
STUDENT HEALTH SERVICES                      281
GLOBAL PROGRAMS                              252
SDM DENTAL CLINICS                           228
SCHOOL OF SOCIAL WORK (SSW)                  202
COLLEGE OF COMMUNICATION (COM)               184
CRC RESIDENCE LIFE                           169
COLLEGE OF GENERAL STUDIES (CGS)             154
FACULTY AND STAFF BENEFITS                   143
MET SPECIAL PROGRAMS NON-CREDIT (MSP)        129
BUMC FACILITIES MANAGEMENT                   128
MARKETING AND COMMUNICATION                  110
PHYSICAL EDUCATION, RECREATION & DANCE        80
HARRY AGGANIS ARENA                           76
DEVELOPMENT & ALUMNI RELATIONS                68
SCHOOL OF HOSPITALITY (SHA)                   46
OTHER OPS & AUXLIARY                          46
THE BU ACADEMY                                29
CRC PARKING                                   12
GENERAL INSTITUTIONAL EXP                      6
SUMMER TERM (SUM)                              5
Name: Unit name, dtype: int64
```

In [ ]:

```python
# create excel for K-cup
df4 = pd.read_excel('k-cup_cost.xlsx')
for i in range(0,54):
    str1 = df4['depart-name'][i][0:7]
    a = df4[df4['Unit name'].str.contains(str1)]
    df4['total cost'][i] = a['Total Paid'].sum()
df4.to_excel('k-cup_cost.xlsx')
```

In [10]:
```
# Total bagged coffee bought by different departments
df6=df[df['Description'].str.contains("bag")]
df6 = df6.loc[:, ('Product P/N (Vendor)','Unit name','Total Paid','Des
cription')]
df7=df6['Unit name'].value_counts()
df7
```

Out[10]:
```
COLLEGE OF ARTS AND SCIS (CAS)    84
METROPOLITAN COLLEGE (MET)         5
ACADEMIC INSTITUTES & CENTERS      1
SCHOOL OF PUBLIC HEALTH (SPH)      1
SCHOOL OF LAW (LAW)                1
SCHOOL OF MEDICINE (BUSM)          1
SUMMER TERM (SUM)                  1
Name: Unit name, dtype: int64
```

In [ ]:
```
# create excel for bagged coffee
df6.to_excel('bags_cost1.xlsx')
df7 = pd.read_excel('bags_cost.xlsx')
for i in range(0,8):
    str1 = df7['depart-name'][i][0:5]
    a = df7[df7['Unit name'].str.contains(str1)]
    df7['total cost'][i] = a['Total Paid'].sum()
    df7.to_excel('bags_cost1.xlsx')
```