

```

In [1]: #HHA 507 Assignment number 2
import numpy as np
import pandas as pd
import pickle
import seaborn as sns

# code to pull the school modalities csv file and count the number of rows and columns

def load_csv(filepath):
    data = []
    col = []
    checkcol = False
    with open(filepath) as f:
        for val in f.readlines():
            val = val.replace("\n", "")
            val = val.split(',')
            if checkcol is False:
                col = val
                checkcol = True
            else:
                data.append(val)
    df = pd.DataFrame(data=data, columns=col)
    return df

myData = load_csv('C:\ProgramData\Anaconda3\Scripts\School_Learning Modalities.csv')
print(myData.head())

df = pd.DataFrame(myData, index=None)

# computing number of rows
rows = len(df.axes[0])

# computing number of columns
cols = len(df.axes[1])

# print Number of rows and columns
print(df)
print("Number of Rows: ", rows)
print("Number of Columns: ", cols)

#printing columns
print(df.columns)

#missing values
columns = df.columns[:100] # first 9 columns
colours = ['#000099', '#ffff00'] # specify the colours - yellow is missing. blue
sns.heatmap(df[columns].isnull(), cmap=sns.color_palette(colours))

```

	District	NCES ID	District Name	Week	\
0		0100005	Albertville City	08/28/2022 12:00:00 AM	
1		0100006	Marshall County	08/28/2022 12:00:00 AM	
2		0100007	Hoover City	08/28/2022 12:00:00 AM	
3		0100008	Madison City	08/28/2022 12:00:00 AM	
4		0100011	Leeds City	08/28/2022 12:00:00 AM	

Learning Modality Operational Schools Student Count

City State \

0	In Person	6	5824	Albertville	AL
1	In Person	15	5764	Guntersville	AL
2	In Person	18	14061	Hoover	AL
3	In Person	11	11695	Madison	AL
4	In Person	4	2076	Leeds	AL

ZIP Code

0	35950
1	35976
2	35243
3	35758
4	35094

	District NCES ID	District Name \
0	0100005	Albertville City
1	0100006	Marshall County
2	0100007	Hoover City
3	0100008	Madison City
4	0100011	Leeds City
...	...	...
781143	5900187	Hannahville Indian School
781144	5900190	Tiospaye Topa School
781145	5900193	Seba Dalkai Boarding School
781146	5900197	Noli School
781147	7200030	PUERTO RICO DEPARTMENT OF EDUCATION

	Week	Learning Modality	Operational Schools \
0	08/28/2022 12:00:00 AM	In Person	6
1	08/28/2022 12:00:00 AM	In Person	15
2	08/28/2022 12:00:00 AM	In Person	18
3	08/28/2022 12:00:00 AM	In Person	11
4	08/28/2022 12:00:00 AM	In Person	4
...	...	...	...
781143	08/01/2021 12:00:00 AM	In Person	1
781144	08/01/2021 12:00:00 AM	In Person	1
781145	08/01/2021 12:00:00 AM	Hybrid	1
781146	08/01/2021 12:00:00 AM	In Person	1
781147	08/01/2021 12:00:00 AM	In Person	849

	Student Count	City	State	ZIP Code
0	5824	Albertville	AL	35950
1	5764	Guntersville	AL	35976
2	14061	Hoover	AL	35243
3	11695	Madison	AL	35758
4	2076	Leeds	AL	35094
...	...	...	...	...
781143	163	Wilson	BI	49896
781144	157	LaPlant	BI	57652
781145	65	Winslow	BI	86047
781146	123	San Jacinto	BI	92581
781147	292518	HATO REY	PR	00919

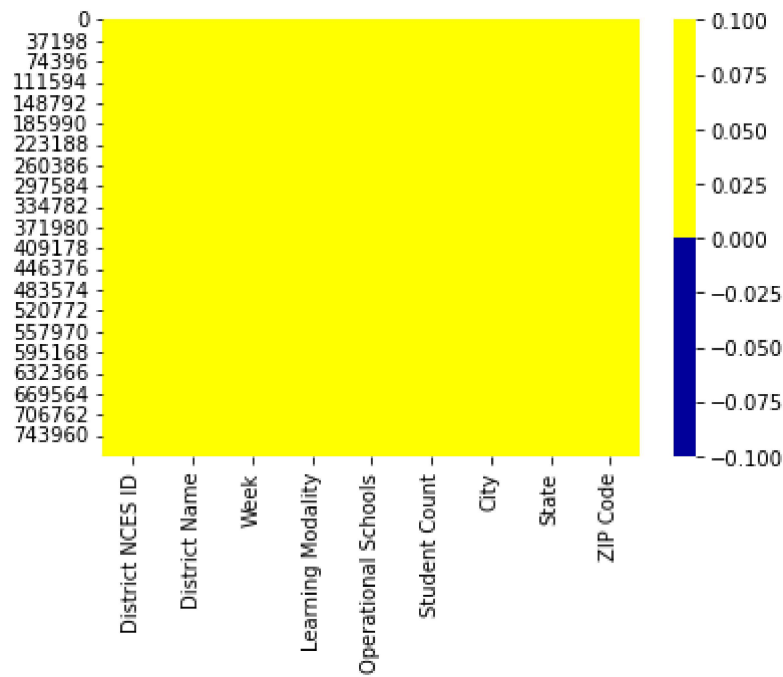
[781148 rows x 9 columns]

Number of Rows: 781148

Number of Columns: 9

```
Index(['District NCES ID', 'District Name', 'Week', 'Learning Modality',
      'Operational Schools', 'Student Count', 'City', 'State', 'ZIP Code'],
      dtype='object')
```

Out[1]: <AxesSubplot:>



In [ ]: