

```
In [45]: import matplotlib.pyplot as plt
import numpy as np
import pandas as pd
import seaborn as sns
```

```
In [46]: data = pd.read_csv('Data_Science_Internship - Dump.csv', na_values='9b2d5b4678781e53038e91ea5324530a03f27dc1d0e5f6c9b')
```

```
In [47]: data.head()
```

```
Out[47]:
```

	Unnamed: 0	Agent_id	status	lost_reason	budget	lease	movein
0	0	1deba9e96f404694373de9749ddd1ca8aa7bb823145a6f...	LOST	Not responding	NaN	NaN	NaN
1	1	299ae77a4ef350ae0dd37d6bba1c002d03444fb1edb236...	LOST	Low budget	NaN	NaN	NaN
2	2	c213697430c006013012dd2aca82dd9732aa0a1a6bca13...	LOST	Not responding	£121 - £180 Per Week	Full Year Course Stay 40 - 44 weeks	31/08/22 7aae3e886e89fc1187a5c47c
3	3	eac9815a500f908736d303e23aa227f0957177b0e6756b...	LOST	Low budget	0-0	0	NaN ba2d0a29556ac20f86f45e45
4	4	1deba9e96f404694373de9749ddd1ca8aa7bb823145a6f...	LOST	Junk lead	NaN	NaN	NaN

```
In [48]: data.dtypes
```

```
Out[48]: Unnamed: 0      int64
         Agent_id      object
         status        object
         lost_reason    object
         budget         object
         lease          object
         movein         object
         source         object
         source_city    object
         source_country object
         utm_source     object
         utm_medium     object
         des_city       object
         des_country    object
         room_type      object
         lead_id        object
         dtype: object
```

```
In [49]: data.tail()
```

```
Out[49]:
```

	Unnamed: 0	Agent_id	status	lost_reason	budget	lease	movein
46603	46603	2306878a9ad9b57686cd623dd285aaa9b25afdf627f651...	LOST	Low availability	£60 - £120 Per week	Complete Education Year Stay 50 - 52 weeks	01/09/22
46604	46604	327ec29056cc47c24bf922f7dc0f78261dad5c726d7353...	LOST	Semester stay	£60 - £120 Per week	Summer/Short Stay 8 - 12 weeks	29/09/22
46605	46605	1134c0a7d44fdae1afd7f1f64e2789496784095ca0a050...	LOST	Low availability	£241 - £300 Per week	Full Year Course Stay 40 - 44 weeks	20/09/22 7aae3e886e89f
46606	46606	8b8b029f1142f5cbc825aa6cbee01406c915c6b055db79...	LOST	Low availability	1108	294	30/08/22 d684761c17c11
46607	46607	1ea65ea38f2f574b3875ba895e4ff76b284b7725041612...	LOST	Low availability	£181 - £240 Per Week	Full Year Course Stay 40 - 44 weeks	01/09/22 7aae3e886e89f

```
In [50]: data.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 46608 entries, 0 to 46607
Data columns (total 16 columns):
#   Column                Non-Null Count  Dtype
---  -
0   Unnamed: 0            46608 non-null  int64
1   Agent_id              46608 non-null  object
2   status               46608 non-null  object
3   lost_reason          43244 non-null  object
4   budget              42908 non-null  object
5   lease               44267 non-null  object
6   movein              32970 non-null  object
7   source              40631 non-null  object
8   source_city         37757 non-null  object
9   source_country     37967 non-null  object
10  utm_source          46547 non-null  object
11  utm_medium          43421 non-null  object
12  des_city            44071 non-null  object
13  des_country         44071 non-null  object
14  room_type           23061 non-null  object
15  lead_id             46608 non-null  object
dtypes: int64(1), object(15)
memory usage: 5.7+ MB
```

```
In [51]: data.isnull().sum()
```

```
Out[51]: Unnamed: 0            0
Agent_id              0
status               0
lost_reason          3364
budget              3700
lease               2341
movein             13638
source              5977
source_city         8851
source_country     8641
utm_source           61
utm_medium          3187
des_city            2537
des_country         2537
room_type           23547
lead_id              0
dtype: int64
```

```
In [52]: data['status'].unique()
```

```
Out[52]: array(['LOST', 'WON', 'OPPORTUNITY', 'CONTACTED', 'PROCESSING',  
              'IMPORTANT'], dtype=object)
```

```
In [107... data['lost_reason'].describe()  
data['budget'].describe()  
data['lease'].describe()  
data['movein'].describe()  
data['source'].describe()  
data['source_country'].describe()  
data['utm_source'].describe()  
data['utm_medium'].describe()  
data['des_city'].describe()  
data['des_country'].describe()  
data['room_type'].describe()
```

```
Out[107]: count      46317.000000  
mean          0.498392  
std           1.033709  
min           0.000000  
25%           0.000000  
50%           0.000000  
75%           0.000000  
max           4.000000  
Name: room_type, dtype: float64
```

```
In [53]: data.head()
```

Out[53]:

Unnamed: 0		Agent_id	status	lost_reason	budget	lease	movein
0	0	1deba9e96f404694373de9749ddd1ca8aa7bb823145a6f...	LOST	Not responding	NaN	NaN	NaN
1	1	299ae77a4ef350ae0dd37d6bba1c002d03444fb1edb236...	LOST	Low budget	NaN	NaN	NaN
2	2	c213697430c006013012dd2aca82dd9732aa0a1a6bca13...	LOST	Not responding	£121 - £180 Per Week	Full Year Course Stay 40 - 44 weeks	31/08/22 7aae3e886e89fc1187a5c47c
3	3	eac9815a500f908736d303e23aa227f0957177b0e6756b...	LOST	Low budget	0-0	0	NaN ba2d0a29556ac20f86f45e45
4	4	1deba9e96f404694373de9749ddd1ca8aa7bb823145a6f...	LOST	Junk lead	NaN	NaN	NaN

```
In [54]: data = data[data['status'].isin(['WON', 'LOST'])]
```

```
In [55]: data.tail()
```

Out[55]:

	Unnamed: 0	Agent_id	status	lost_reason	budget	lease	movein
46603	46603	2306878a9ad9b57686cd623dd285aaa9b25afdf627f651...	LOST	Low availability	£60 - £120 Per week	Complete Education Year Stay 50 - 52 weeks	01/09/22
46604	46604	327ec29056cc47c24bf922f7dc0f78261dad5c726d7353...	LOST	Semester stay	£60 - £120 Per week	Summer/Short Stay 8 - 12 weeks	29/09/22
46605	46605	1134c0a7d44fdae1afd7f1f64e2789496784095ca0a050...	LOST	Low availability	£241 - £300 Per week	Full Year Course Stay 40 - 44 weeks	20/09/22 7aae3e886e89f
46606	46606	8b8b029f1142f5cbc825aa6cbee01406c915c6b055db79...	LOST	Low availability	1108	294	30/08/22 d684761c17c11
46607	46607	1ea65ea38f2f574b3875ba895e4ff76b284b7725041612...	LOST	Low availability	£181 - £240 Per Week	Full Year Course Stay 40 - 44 weeks	01/09/22 7aae3e886e89f

```
In [56]: data.drop('Unnamed: 0',axis=1, inplace=True)
data.drop('lead_id',axis=1, inplace=True)
```

```
In [57]: data.drop('Agent_id',axis=1, inplace=True)
```

In []:

In []:

Filling null values

```
In [58]: cat_cols = data.select_dtypes(include=['object']).columns
         for col in cat_cols:
             if data[col].isnull().any():
                 data[col].fillna(data[col].mode()[0], inplace=True)
```

```
In [59]: cat_cols.values
```

```
Out[59]: array(['status', 'lost_reason', 'budget', 'lease', 'movein', 'source',
               'source_city', 'source_country', 'utm_source', 'utm_medium',
               'des_city', 'des_country', 'room_type'], dtype=object)
```

```
In [60]: data.head()
```


Out[60]:

	status	lost_reason	budget	lease	movein	source
0	LOST	Not responding	£60 - £120 Per week	Full Year Course Stay 40 - 44 weeks	10/09/22 7aae3e886e89fc1187a5c47d6cea1c22998ee610ade1f2...	ecc0e7dc084f141b29479058967d0bc07dec
1	LOST	Low budget	£60 - £120 Per week	Full Year Course Stay 40 - 44 weeks	10/09/22 7aae3e886e89fc1187a5c47d6cea1c22998ee610ade1f2...	ecc0e7dc084f141b29479058967d0bc07dec
2	LOST	Not responding	£121 - £180 Per Week	Full Year Course Stay 40 - 44 weeks	31/08/22 7aae3e886e89fc1187a5c47d6cea1c22998ee610ade1f2...	9b8cc3c63cdf447e463c11544924bf02794
3	LOST	Low budget	0-0	0	10/09/22 ba2d0a29556ac20f86f45e4543c0825428cba33fd7a9ea...	a5f0d2d08eb0592087e3a3a2f9c1ba2c67c
4	LOST	Junk lead	£60 - £120 Per week	Full Year Course Stay 40 - 44 weeks	10/09/22 7aae3e886e89fc1187a5c47d6cea1c22998ee610ade1f2...	ecc0e7dc084f141b29479058967d0bc07dec

```
In [90]: from pandas_profiling import ProfileReport
profile = ProfileReport(data, title="Pandas Profiling Report")
```

```
In [91]: profile.to_file("report.html")
```

```
Summarize dataset: 0%|          | 0/5 [00:00<?, ?it/s]
Generate report structure: 0%|          | 0/1 [00:00<?, ?it/s]
Render HTML: 0%|          | 0/1 [00:00<?, ?it/s]
```

Export report to file: 0%| | 0/1 [00:00<?, ?it/s]

In []:

In []:

Chi-square test

```
In [61]: import scipy.stats as stats
for feature in list(data.columns):
    contingency_table = pd.crosstab(data['status'], data[feature])
    chi2, p, dof, expected = stats.chi2_contingency(contingency_table)
    print(f'With feature: {feature}, Chi-square Statistic : {chi2} ,p-value: {p}')
    # Performing Cramer's V calculation
    N = contingency_table.sum().sum()
    minimum_dimension = min(contingency_table.shape)-1
    result = np.sqrt((chi2/N) / minimum_dimension)
    print(f'Cramer\'s V : {result}\n')
```

With feature: status, Chi-square Statistic : 46300.85810265466 ,p-value: 0.0
Cramer's V : 0.9998257302503388

With feature: lost_reason, Chi-square Statistic : 9449.665762398678 ,p-value: 0.0
Cramer's V : 0.4516874384286259

With feature: budget, Chi-square Statistic : 4716.0726436093855 ,p-value: 3.1298314048408433e-249
Cramer's V : 0.3190950241966005

With feature: lease, Chi-square Statistic : 2170.9186594461084 ,p-value: 4.486803427870402e-276
Cramer's V : 0.21649684151375784

With feature: movein, Chi-square Statistic : 558.2056676791419 ,p-value: 0.0025606904988760668
Cramer's V : 0.10978093110045306

With feature: source, Chi-square Statistic : 3868.8149974325943 ,p-value: 0.0
Cramer's V : 0.28901392657360697

With feature: source_city, Chi-square Statistic : 4061.1963576178405 ,p-value: 0.9971926192935603
Cramer's V : 0.2961125286990821

With feature: source_country, Chi-square Statistic : 347.40148165901604 ,p-value: 2.6804512567243833e-12
Cramer's V : 0.08660552968654472

With feature: utm_source, Chi-square Statistic : 2054.737985840134 ,p-value: 0.0
Cramer's V : 0.2106240764571771

With feature: utm_medium, Chi-square Statistic : 396.69785715060914 ,p-value: 2.680136035614884e-50
Cramer's V : 0.09254643978259028

With feature: des_city, Chi-square Statistic : 1945.9019621575128 ,p-value: 1.2460054627860648e-274
Cramer's V : 0.20496998391400814

With feature: des_country, Chi-square Statistic : 84.25878172925214 ,p-value: 1.7318777633198024e-12
Cramer's V : 0.04265180124892342

With feature: room_type, Chi-square Statistic : 59.34706865038228 ,p-value: 3.978428927109605e-12
Cramer's V : 0.035795581779052586

```
In [62]: data.drop('source_city',axis=1, inplace=True)
```

```
In [63]: data.columns
```

```
Out[63]: Index(['status', 'lost_reason', 'budget', 'lease', 'movein', 'source',  
              'source_country', 'utm_source', 'utm_medium', 'des_city', 'des_country',  
              'room_type'],  
              dtype='object')
```

```
In [20]: data.head()
```

```
Out[20]:
```

	status	lost_reason	budget	lease	movein	source	sc
0	LOST	Not responding	£60 - £120 Per week	Full Year Course Stay 40 - 44 weeks	10/09/22	7aae3e886e89fc1187a5c47d6cea1c22998ee610ade1f2...	e09e10e67812e9d236ad900e5d46b4308fc
1	LOST	Low budget	£60 - £120 Per week	Full Year Course Stay 40 - 44 weeks	10/09/22	7aae3e886e89fc1187a5c47d6cea1c22998ee610ade1f2...	e09e10e67812e9d236ad900e5d46b4308fc
2	LOST	Not responding	£121 - £180 Per Week	Full Year Course Stay 40 - 44 weeks	31/08/22	7aae3e886e89fc1187a5c47d6cea1c22998ee610ade1f2...	e09e10e67812e9d236ad900e5d46b4308fc
3	LOST	Low budget	0-0	0	10/09/22	ba2d0a29556ac20f86f45e4543c0825428cba33fd7a9ea...	e09e10e67812e9d236ad900e5d46b4308fc
4	LOST	Junk lead	£60 - £120 Per week	Full Year Course Stay 40 - 44 weeks	10/09/22	7aae3e886e89fc1187a5c47d6cea1c22998ee610ade1f2...	e09e10e67812e9d236ad900e5d46b4308fc

Label-Encoding

```
In [64]: from sklearn.preprocessing import LabelEncoder

# Create a LabelEncoder object
le = LabelEncoder()

# Encode the categorical variable
data['lost_reason'] = le.fit_transform(data['lost_reason'])

In [86]: data['status'] = le.fit_transform(data['status'])

In [66]: data['budget'] = le.fit_transform(data['budget'])

In [67]: data['lease'] = le.fit_transform(data['lease'])

In [68]: data['movein'] = le.fit_transform(data['movein'])

In [69]: data['source'] = le.fit_transform(data['source'])

In [70]: data['source_country'] = le.fit_transform(data['source_country'])

In [71]: data['utm_source'] = le.fit_transform(data['utm_source'])

In [72]: data['utm_medium'] = le.fit_transform(data['utm_medium'])

In [73]: data['des_city'] = le.fit_transform(data['des_city'])

In [74]: data['des_country'] = le.fit_transform(data['des_country'])

In [75]: data['room_type'] = le.fit_transform(data['room_type'])

In [76]: data
```

Out[76]:

	status	lost_reason	budget	lease	movein	source	source_country	utm_source	utm_medium	des_city	des_country	room_type
0	LOST	21	1834	266	165	343	165	5	10	205	8	0
1	LOST	16	1834	266	165	343	165	5	10	74	8	0
2	LOST	21	1752	266	463	343	165	25	3	18	8	0
3	LOST	16	10	2	165	507	165	25	3	26	8	0
4	LOST	8	1834	266	165	343	165	5	10	205	8	0
...
46603	LOST	15	1834	263	19	343	100	25	3	22	8	3
46604	LOST	24	1834	286	431	343	100	25	3	135	8	3
46605	LOST	15	1810	266	308	343	100	25	3	205	8	3
46606	LOST	15	815	93	449	578	133	19	49	205	8	0
46607	LOST	15	1793	266	19	343	165	25	3	85	8	3

46317 rows × 12 columns

Models and Validation

In [87]: `from sklearn.model_selection import train_test_split`

```
X = data.drop('status', axis=1)
y = data['status']
```

```
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, random_state=42)
```

Logistic Regression

```
In [90]: from sklearn.linear_model import LogisticRegression
```

```
# Create the model object  
lr = LogisticRegression()  
  
# Fit the model to the training data  
lr.fit(X_train, y_train)  
  
# Predict the target variable for test data  
y_pred = lr.predict(X_test)
```

C:\Users\anika\anaconda3\lib\site-packages\sklearn\linear_model_logistic.py:814: ConvergenceWarning: lbfgs failed to converge (status=1):
STOP: TOTAL NO. of ITERATIONS REACHED LIMIT.

Increase the number of iterations (max_iter) or scale the data as shown in:

<https://scikit-learn.org/stable/modules/preprocessing.html>

Please also refer to the documentation for alternative solver options:

https://scikit-learn.org/stable/modules/linear_model.html#logistic-regression

n_iter_i = _check_optimize_result(

```
In [91]: from sklearn.metrics import accuracy_score, precision_score, recall_score, f1_score
```

```
print('Accuracy:', accuracy_score(y_test, y_pred))  
print('Precision:', precision_score(y_test, y_pred, average='weighted'))  
print('Recall:', recall_score(y_test, y_pred, average='weighted'))  
print('F1-Score:', f1_score(y_test, y_pred, average='weighted'))
```

Accuracy: 0.9370682210708118

Precision: 0.8782928096012942

Recall: 0.9370682210708118

F1-Score: 0.9067290382097283

SVC

```
In [92]: from sklearn.svm import SVC
```

```
# Create the model object  
svm = SVC()
```

```
# Fit the model to the training data  
svm.fit(X_train, y_train)
```

```
# Predict the target variable for test data  
y_pred = svm.predict(X_test)
```

```
In [93]: from sklearn.metrics import accuracy_score, precision_score, recall_score, f1_score
```

```
print('Accuracy:', accuracy_score(y_test, y_pred))  
print('Precision:', precision_score(y_test, y_pred, average='weighted'))  
print('Recall:', recall_score(y_test, y_pred, average='weighted'))  
print('F1-Score:', f1_score(y_test, y_pred, average='weighted'))
```

```
Accuracy: 0.9371761658031088
```

```
Precision: 0.8782991657494161
```

```
Recall: 0.9371761658031088
```

```
F1-Score: 0.9067829568151778
```

```
C:\Users\anika\anaconda3\lib\site-packages\sklearn\metrics\_classification.py:1318: UndefinedMetricWarning: Precision is ill-defined and being set to 0.0 in labels with no predicted samples. Use `zero_division` parameter to control this behavior.
```

```
_warn_prf(average, modifier, msg_start, len(result))
```

RandomForest

```
In [94]: from sklearn.ensemble import RandomForestClassifier
```

```
rfc = RandomForestClassifier(n_estimators=100, random_state=42)
```

```
In [95]: rfc.fit(X_train, y_train)
```

```
Out[95]: RandomForestClassifier(random_state=42)
```

```
In [96]: y_pred = rfc.predict(X_test)
```



```
In [97]: from sklearn.metrics import accuracy_score, precision_score, recall_score, f1_score
```

```
print('Accuracy:', accuracy_score(y_test, y_pred))
print('Precision:', precision_score(y_test, y_pred, average='weighted'))
print('Recall:', recall_score(y_test, y_pred, average='weighted'))
print('F1-Score:', f1_score(y_test, y_pred, average='weighted'))
```

```
Accuracy: 0.9735535405872193
Precision: 0.972323771958689
Recall: 0.9735535405872193
F1-Score: 0.9726752234941063
```

DecisionTree

```
In [98]: from sklearn.tree import DecisionTreeClassifier
```

```
# Train a Decision Tree Classifier model
```

```
model = DecisionTreeClassifier(random_state=42)
model.fit(X_train, y_train)
```

```
# Evaluate the performance of the model
```

```
y_pred = model.predict(X_test)
print("Accuracy:", accuracy_score(y_test, y_pred))
print("Precision:", precision_score(y_test, y_pred, average='weighted'))
print("Recall:", recall_score(y_test, y_pred, average='weighted'))
print("F1-Score:", f1_score(y_test, y_pred, average='weighted'))
```

```
Accuracy: 0.9752806563039723
Precision: 0.9749978119121996
Recall: 0.9752806563039723
F1-Score: 0.9751299706500031
```

```
In [108... pip install nbconvert[webpdf]
```

```
Requirement already satisfied: nbconvert[webpdf] in c:\users\anika\anaconda3\lib\site-packages (6.4.4)
Requirement already satisfied: jinja2>=2.4 in c:\users\anika\anaconda3\lib\site-packages (from nbconvert[webpdf])
(2.11.3)
Requirement already satisfied: pandocfilters>=1.4.1 in c:\users\anika\anaconda3\lib\site-packages (from nbconvert[webpdf]) (1.5.0)
Requirement already satisfied: defusedxml in c:\users\anika\anaconda3\lib\site-packages (from nbconvert[webpdf]) (0.7.1)
Requirement already satisfied: mistune<2,>=0.8.1 in c:\users\anika\anaconda3\lib\site-packages (from nbconvert[webpdf]) (0.8.4)
Requirement already satisfied: jupyterlab-pygments in c:\users\anika\anaconda3\lib\site-packages (from nbconvert[webpdf]) (0.1.2)
Requirement already satisfied: beautifulsoup4 in c:\users\anika\anaconda3\lib\site-packages (from nbconvert[webpdf]) (4.11.1)
Requirement already satisfied: traitlets>=5.0 in c:\users\anika\anaconda3\lib\site-packages (from nbconvert[webpdf]) (5.1.1)
Requirement already satisfied: pygments>=2.4.1 in c:\users\anika\anaconda3\lib\site-packages (from nbconvert[webpdf]) (2.11.2)
Requirement already satisfied: nbformat>=4.4 in c:\users\anika\anaconda3\lib\site-packages (from nbconvert[webpdf]) (5.5.0)
Requirement already satisfied: bleach in c:\users\anika\anaconda3\lib\site-packages (from nbconvert[webpdf]) (4.1.0)
Requirement already satisfied: nbclient<0.6.0,>=0.5.0 in c:\users\anika\anaconda3\lib\site-packages (from nbconvert[webpdf]) (0.5.13)
Requirement already satisfied: entrypoints>=0.2.2 in c:\users\anika\anaconda3\lib\site-packages (from nbconvert[webpdf]) (0.4)
Requirement already satisfied: testpath in c:\users\anika\anaconda3\lib\site-packages (from nbconvert[webpdf]) (0.6.0)
Requirement already satisfied: jupyter-core in c:\users\anika\anaconda3\lib\site-packages (from nbconvert[webpdf]) (4.11.1)
Collecting pypeteer<1.1,>=1
  Downloading pypeteer-1.0.2-py3-none-any.whl (83 kB)
----- 83.4/83.4 kB 2.4 MB/s eta 0:00:00
Requirement already satisfied: MarkupSafe>=0.23 in c:\users\anika\anaconda3\lib\site-packages (from jinja2>=2.4->nbconvert[webpdf]) (2.0.1)
Requirement already satisfied: jupyter-client>=6.1.5 in c:\users\anika\anaconda3\lib\site-packages (from nbclient<0.6.0,>=0.5.0->nbconvert[webpdf]) (7.3.4)
Requirement already satisfied: nest-asyncio in c:\users\anika\anaconda3\lib\site-packages (from nbclient<0.6.0,>=0.5.0->nbconvert[webpdf]) (1.5.5)
Requirement already satisfied: jsonschema>=2.6 in c:\users\anika\anaconda3\lib\site-packages (from nbformat>=4.4->nbconvert[webpdf]) (4.16.0)
Requirement already satisfied: fastjsonschema in c:\users\anika\anaconda3\lib\site-packages (from nbformat>=4.4->nbconvert[webpdf]) (2.16.2)
Requirement already satisfied: urllib3<2.0.0,>=1.25.8 in c:\users\anika\anaconda3\lib\site-packages (from pypeteer<1.1,>=1->nbconvert[webpdf]) (1.26.11)
Requirement already satisfied: importlib-metadata>=1.4 in c:\users\anika\anaconda3\lib\site-packages (from pypeteer
```

```

<1.1,>=1->nbconvert[webpdf]) (4.11.3)
Requirement already satisfied: appdirs<2.0.0,>=1.4.3 in c:\users\anika\anaconda3\lib\site-packages (from pyppeteer
<1.1,>=1->nbconvert[webpdf]) (1.4.4)
Collecting pyee<9.0.0,>=8.1.0
  Downloading pyee-8.2.2-py2.py3-none-any.whl (12 kB)
Requirement already satisfied: tqdm<5.0.0,>=4.42.1 in c:\users\anika\anaconda3\lib\site-packages (from pyppeteer<1.
1,>=1->nbconvert[webpdf]) (4.64.1)
Collecting websockets<11.0,>=10.0
  Using cached websockets-10.4-cp39-cp39-win_amd64.whl (101 kB)
Requirement already satisfied: certifi>=2021 in c:\users\anika\anaconda3\lib\site-packages (from pyppeteer<1.1,>=1->
nbconvert[webpdf]) (2022.9.14)
Requirement already satisfied: soupsieve>1.2 in c:\users\anika\anaconda3\lib\site-packages (from beautifulsoup4->nbc
onvert[webpdf]) (2.3.1)
Requirement already satisfied: packaging in c:\users\anika\anaconda3\lib\site-packages (from bleach->nbconvert[webpd
f]) (21.3)
Requirement already satisfied: webencodings in c:\users\anika\anaconda3\lib\site-packages (from bleach->nbconvert[we
bpdf]) (0.5.1)
Requirement already satisfied: six>=1.9.0 in c:\users\anika\appdata\roaming\python\python39\site-packages (from blea
ch->nbconvert[webpdf]) (1.15.0)
Requirement already satisfied: pywin32>=1.0 in c:\users\anika\anaconda3\lib\site-packages (from jupyter-core->nbconv
ert[webpdf]) (302)
Requirement already satisfied: zipp>=0.5 in c:\users\anika\anaconda3\lib\site-packages (from importlib-metadata>=1.4
->pyppeteer<1.1,>=1->nbconvert[webpdf]) (3.8.0)
Requirement already satisfied: pyparsing!=0.17.0,!0.17.1,!0.17.2,>=0.14.0 in c:\users\anika\anaconda3\lib\site-pa
ckages (from jsonschema>=2.6->nbformat>=4.4->nbconvert[webpdf]) (0.18.0)
Requirement already satisfied: attrs>=17.4.0 in c:\users\anika\anaconda3\lib\site-packages (from jsonschema>=2.6->nb
format>=4.4->nbconvert[webpdf]) (21.4.0)
Requirement already satisfied: pyzmq>=23.0 in c:\users\anika\anaconda3\lib\site-packages (from jupyter-client>=6.1.5
->nbclient<0.6.0,>=0.5.0->nbconvert[webpdf]) (23.2.0)
Requirement already satisfied: python-dateutil>=2.8.2 in c:\users\anika\anaconda3\lib\site-packages (from jupyter-cl
ient>=6.1.5->nbclient<0.6.0,>=0.5.0->nbconvert[webpdf]) (2.8.2)
Requirement already satisfied: tornado>=6.0 in c:\users\anika\anaconda3\lib\site-packages (from jupyter-client>=6.1.
5->nbclient<0.6.0,>=0.5.0->nbconvert[webpdf]) (6.1)
Requirement already satisfied: colorama in c:\users\anika\appdata\roaming\python\python39\site-packages (from tqdm
<5.0.0,>=4.42.1->pyppeteer<1.1,>=1->nbconvert[webpdf]) (0.4.4)
Requirement already satisfied: pyparsing!=3.0.5,>=2.0.2 in c:\users\anika\anaconda3\lib\site-packages (from packagin
g->bleach->nbconvert[webpdf]) (3.0.9)
Installing collected packages: pyee, websockets, pyppeteer
Successfully installed pyee-8.2.2 pyppeteer-1.0.2 websockets-10.4
Note: you may need to restart the kernel to use updated packages.

```

In []: