PRAC 1

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import pandas as pd
import numpy as nm

df = pd.read_csv("academic performance dataset.csv")
df

df.head()
df.tail()

df.describe()
df.info()
df.isnull()
df.isnull().sum()
df.isnull().any().any()

avg_val = df["Discussion"].astype("float").mean()
avg_val

!pip install seaborn

import seaborn as sns
import matplotlib.pyplot as plt
from scipy import stats

sns.regplot(x='Sno', y='AnnouncementsView', data=df)
plt.show()

sns.boxplot(x=df['AnnouncementsView'])
plt.show()



z = np.abs(stats.zscore(df['AnnouncementsView']))
print(z)

threshold = 3
print(np.where(z > 3))

df1 = pd.DataFrame({ 'Income': [15000, 1800, 120000, 10000],
 'Age': [25, 18, 42, 51],
 'Department': ['HR','Legal','Marketing','Management']})

df1

df1_scaled = df1.copy()
col_names = ['Income', 'Age']
features = df1_scaled[col_names]

features
```

```
from sklearn.preprocessing import MinMaxScaler
scaler = MinMaxScaler()
df1_scaled[col_names] = scaler.fit_transform(features.values)

print(df1_scaled[col_names])
```