Photo by **Jannis Lucas** ☒ on **Unsplash** ☒.

Every year, American high school students take SATs, which are standardized tests intended to measure literacy, numeracy, and writing skills. There are three sections - reading, math, and writing, each with a **maximum score of 800 points**. These tests are extremely important for students and colleges, as they play a pivotal role in the admissions process.

Analyzing the performance of schools is important for a variety of stakeholders, including policy and education professionals, researchers, government, and even parents considering which school their children should attend.

You have been provided with a dataset called `schools.csv` , which is previewed below.

You have been tasked with answering three key questions about New York City (NYC) public school SAT performance.

```python
# Re-run this cell
import pandas as pd

# Read in the data
schools = pd.read_csv("schools.csv")

# Preview the data
schools.head()

# Start coding here...

#Project Start
#Question 1
best_math_schools = schools[schools["average_math"] >= 640][["school_name", "average_math"]]
best_math_schools = best_math_schools.sort_values(["average_math"], ascending = False)

#Question 2 Adding a new Column
schools["total_SAT"]= schools["average_math"] + schools["average_reading"] +
schools["average_writing"]
top_10_schools = schools[["school_name", "total_SAT"]].sort_values("total_SAT",
ascending=False).head(10)

#Question 3
boroughs = schools.groupby("borough")["total_SAT"].agg(["count", "mean", "std"]).round(2)

# Filter for max std and make borough a column
largest_std_dev = boroughs[boroughs["std"] == boroughs["std"].max()]

# Rename the columns for clarity
largest_std_dev = largest_std_dev.rename(columns={"count": "num_schools", "mean":
"average_SAT", "std": "std_SAT"})
```

```python
# Optional: Move borough from index to column
largest_std_dev.reset_index(inplace=True)
```