PROJECT: EXPLORING NYC PUBLIC SCHOOL TEST RESULT SCORES

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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.

```
# 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...
# Add as many cells as you like...


best_math = schools[schools["average_math"]>=640][["school_name", "average_math"]]
best_math_schools = best_math.sort_values("average_math", ascending=False)

schools["total_SAT"]=schools["average_math"]+schools["average_reading"]+schools["ave
rage_writing"]
top_schools = schools.sort_values("total_SAT", ascending=False)
top_10_schools = top_schools[["school_name", "total_SAT"]].head(10)
top_10_schools

import numpy as np
schools

group_borough = schools.groupby("borough")
# group_borough["num_schools"] = schools["borough"].value_counts()
# group_borough["average_SAT"] = group_borough["total_SAT"].mean()
std = group_borough["total_SAT"].std()
mean = group_borough["total_SAT"].mean()
num_school = group_borough.size()

max_std_borough = std.idxmax()

# Create a DataFrame with the required information
largest_std_dev = pd.DataFrame({
    "borough": [max_std_borough],
    "num_schools": [num_school[max_std_borough]],
    "average_SAT": [mean[max_std_borough]],
    "std_SAT": [std[max_std_borough]]
})
largest_std_dev = largest_std_dev.round(2)
best_math_schools

# max_std = std.max()
# largest = std[std==max_std]
# # if schools["borough"] == "Manhattan":
```

```
# num_schools = schools["borough"].value_counts()
# num_schools["Manhattan"]
# schools["borough"]
# largest["
# if largest["average_SAT"] = group_borough["total_SAT"].mean()
# group_borough.head()


# largest
# largest_std
# schools.head()
# sort_values("total_SAT").head(1)
# largest_bor = group_borough[group_borough["total_SAT"]==230.2941395364]
```

index	school_name
88	Stuyvesant High School
170	Bronx High School of Science
93	Staten Island Technical High School
365	Queens High School for the Sciences at York College
68	High School for Mathematics, Science, and Engineering at City College
280	Brooklyn Technical High School
333	Townsend Harris High School
174	High School of American Studies at Lehman College
0	New Explorations into Science, Technology and Math High School
45	Eleanor Roosevelt High School

Rows: 10 Expand

Write Python code or tell our AI what to do