

Technical Programming II

Practical Assessment: Airport Case Study

Data files:

- tsa_claims2.csv
- GlobalAirportsDatabase.txt
- maps/states.* (the shape files for the U.S. map)

Scenario

You are an analyst employed by the U.S. Transportation Security Administration (TSA). Your boss has asked you to produce a report that completes the following tasks and answers the following questions about insurance claims against airports in the U.S.

Tasks and questions

1. What is the most common type of insurance claim?
2. Which claim site within the airport are claims most commonly filed for?
3. What type of claim is made most at each claim site?
4. What is the typical claim amount?
5. What is the overall claim approval rate for the entire U.S.?
6. If a claim is approved or settled, what percent of the claim amount do the airports pay?
7. What are the five airports with the most claims?
8. Has the total close amount increased or decreased over time?
9. Create a map that shows the location of each airport in the continental U.S. and changes the size of the airport's dot depending on its number of claims. To do that, use GeoPandas as described in chapter 13.

Instructions

1. Create a Notebook for the study.
2. Clean the data and explain why you cleaned it the way you did.
3. Create a heading for the question or task.
4. If necessary, perform additional cleaning or preparation for the question or task.
5. Create a table or plot that completes the task or answers the question. Make sure to use a heading or raw text to explain what the table or plot tells you.

Repeat steps 3-5 for each question or task.

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