

Individual Exercise 7 (10 points)
BAN 5733

An airplane crash is devastating for the passengers, crew, airline and society as a whole. The loss of life can be high or the injuries severe but even if neither of those occur, companies suffer a huge financial blow when airplanes crash. Your objective is to analyze the “Aircrafts Incident.jmp” table, which has data on almost 2,000 airplane crashes that occurred in 2001, to see if anything stands out as a major cause of crashes.

Summarize and prepare the text data for analysis. Conduct text analysis on the data to see if there are items the airline company can take action on such as training or manufacturing issues. They strongly feel that crash data can be categorized automatically instead of manually like they do now. Does the text analysis work well with the data and create sensible topics and phrases? (Hint: If the text analysis does not create topics and phrases that make sense or break the text data appropriately then further data preparation may be needed.)

Write a short section in a manager friendly way with a separate detailed technical section for the researchers and marketing analysts. The managers are interested in primarily non-technical explanation of your final model and recommendations based on that model. The researchers and marketing analysts are interested in knowing all the technical details.

Your report should be restricted to 6-pages maximum. Please back up your assertions with appropriate statistics and graphs as needed.

Variable Descriptions:

Variable Name	Type	Variable Name	Type
Accident Number	Nominal	Model	Nominal
Event Date	Continuous	Amateur Built	Nominal
Investigation Type	Nominal	Number of Engines	Ordinal
Location	Nominal	Engine Type	Nominal
Country	Nominal	Purpose of Flight	Nominal
Latitude	Continuous	Total Fatal Injuries	Continuous
Longitude	Continuous	Total Serious Injuries	Continuous
Airport Code	Nominal	Total Minor Injuries	Continuous
Airport Name	Nominal	Total Uninjured	Continuous
Injury Severity	Nominal	Weather Condition	Nominal
Fatal	Nominal	Broad Phase of Flight	Nominal
Aircraft Damage	Nominal	Final Narrative	Text
Registration Number	Nominal	Narrative Cause	Text
Make	Nominal		