

Summer Project Assignment

Dr. Christopher West and Brandon Barbour

Intent

Assignment

Data

Deliverable Specifics

Access

Summer Project Assignment Intent

An open-ended, initial, experiential learning assignment that lays the foundation for soft skills instructional content and more structured experiences most of which are still to come

Technical Communication

Professional Reflection

Team Dynamics

MBTI

Leadership Models

Summer Project Debrief

Project Management

Strengths Finder

Ethics

Team Dysfunctions

Followership

Scenario

Analyze recent US Commercial air travel data

Government has conducted their own internal/typical analysis that you might expect

US Federal Aviation Administration (FAA) executive (role played by Dr. W) interested in an open-ended, non-directed outside analysis that produces value for stakeholders

Assignment

Each team: analyze the datasets, reach conclusions, present results impactful to stakeholders including: descriptive insights, predictive/inferential findings, and visual tools

Collaboration between teams is NOT permitted; All work-product must be developed by the team

Presentations will be July 24th - 25th (We-Th); Order will be posted a few days prior to the presentation

Data

12 ZIP files each containing one month of information from 4/22 - 3/23:~30MB zipped, ~300MB unzipped

Data sourced from link below also serves as data dictionary and contains lookup tables necessary to subset the data down and merge correctly

https://transtats.bts.gov/DL_SelectFields.aspx?gnoyr_VQ=FGK&QO_fu146_anzr=b0-gvzr

Teams must use **all months** in data set but must subset the data in one of the following ways:

1. Only focusing on the top 10 US airlines (American Airlines, Delta Airlines, United Airlines, Southwest Airlines, Alaska Airlines, JetBlue Airlines, Spirit Airlines, Frontier Airlines, Allegiant Air, Hawaiian Airlines)
2. Only focusing on the top 10 US airports (ATL, DFW, DEN, ORD, LAX, CLT, MCO, LAS, PHX, MIA)
3. Only focusing on the top 10 US airlines at the top 10 US airports (subsetting by both options above)

Deliverable

20 minute presentation with additional 10 minutes for faculty Q&A/feedback. Attendees at the presentation will be some senior DOT executives. Only a few will have “statistical” backgrounds.

- Each team member must speak
- Dress is business formal
- Presentation slides must be uploaded to AA500 Moodle website by 8am on Jul 24: [Summer Project Submission](#)
- Presentation title slide must include your team number & the names of all team members

Q&A Roles

Technical Faculty available as an IAA faculty member to answer analytical technical questions

Dr. Egan Warren available for communication questions/discussion

- Use Scheduler Page: [Sarah Egan Warren](#)
- Use resources from her class on 6/24
- Use optional Q&A Session on 7/23

Dr. West will play the role of the sponsoring executive from the FAA - Can answer questions and discuss issues related to the project scenario

- Available for email correspondence only from Jul 8 - Jul 12 (cjwest4@ncsu.edu)
- Available in-person via scheduler otherwise: [Chris West](#)

Evaluation Criteria (Part 1)

Presentation Materials, Structure, Skills - (1-5. 1 = weak; 5 = strong): _____

For consideration:

- Was the content appropriate/suitable for and focused on the expected audience?
- Was the presentation well-structured:
 - Clear introduction
 - Title Slide
 - BLUF-Bottom line up front
 - Agenda
 - Chevron/navigational-aids/crumbs
- Was the presenting group well prepared for their presentation?

Evaluation Criteria (Part 2)

The Analysis - (1-5. 1 = weak; 5 = strong):_____

For consideration:

- Problem framing: Did the presenting group provide a clear, concise, and well-defined structuring of the situation?
- Did the team present an understanding of the datasets that were used?
- Were the analysis/results/plans presented methodologically sound?
- Did the presenting group identify the business impacting/relevant issues?
- Did the presenting group make specific recommendations and provide adequate support for their decision?
- What was the overall quality of visuals?

Technical Overview

What you Need?

Cisco VPN Client

Microsoft Remote Desktop

- Windows (built in)
- MacOS – AppStore - Docs

Team Server Addresses

- [Moodle](#)

Documentation

- MSA Student IT Shared Drive
- [Practicum Documentation](#)

Server Specs and Software

Lenovo Thinkcenter

- Intel Xeon 8 Core
- 768 GB RAM
- 11 TB Storage space (D: Drive)
- X: Drive Network Backup Storage

Software

- R / Rstudio
- Python / Anaconda
- Tableau / Prep
- PostgreSQL
- Microsoft PowerBI

Technical Overview

Security Summer vs Fall

Google Apps Access

Github

Microsoft Login/Online

Slack - Web Version on Server
– Free discussion

Contacting IT

Talk to team first!!!

-n=1 -> Contact IT

-n= team -> designate liaison

#msa25-it-help-desk

iaa@help.ncsu.edu

Office Drop ins

Questions?