THE UNIVERSITY of NORTH CAROLINA at CHAPEL HILL

STOR 320 Final Project I

Lecture 6

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Introduction to Project

Process	Deliverable	Points
Data to Questions	Project Proposal	10
Questions to Investigation	Exploratory Data Analysis	20
Investigation to Modeling	Final Written Paper	40
Modeling to Communication	Final Presentation	30

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Introduction to Project

- Final Project Score
  - 30% of Course Grade
  - Mostly Objective:
    - Follow All Rules
    - Meet All Deadlines
    - Well-Defined Rubrics
  - Partially Subjective
    - Interest Level
    - Verbal Communication
    - Written Communication
    - Grammar and Spelling
- Members of the Group Will Receive Approximately the Same Grade
- 10 Points of the Final Written Paper Based on Peer Scoring

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Introduction to Project

- Four Roles
  - Randomly Assigned to Research Groups of 4 or 5
  - Group Assignment: google sheet
  - Each Part of the Project Will State the Expectations of All Members of the Group According to Their Role

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Four Roles

- Role 1: Creator
  - Schedule a 10-minute Meeting with the instructor on Sep 17 or 19 (8:00 AM – 10:00 AM).
    - Location: Hanes 334
  - 5-minute presentation, 5-minute Q&A
  - Verbally Explain the Dataset(s) Your Group has Chosen
  - Verbally Communicate the Initial Questions Your Group Plans to Pursue
  - State the Roles the Other Members Have Chosen
  - Lead Designer in Slides for Final Presentation

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Four Roles

- Role 2: Interpreter
  - Schedule a 10 Minute Meeting with the instructional assistant.
  - Briefly Discuss Any Interesting Results from the Initial Questions
  - Discuss Your Group's Findings on The Follow-up Questions
  - Explain Which Areas Your Group Will Focus on For the Final Presentation and Paper
  - Responsible for Watching Practice Presentation Before Presentation Day

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Four Roles

- Role 3: Orator(s)
  - Deliver a 5-7 Minute Presentation
  - Use a Slide Show
  - Explain the Data You Used
  - Show Visuals/ Tables to Illustrate Discoveries
  - Discuss Details of Methods Used For Questions Your Group Pursued Deeper After the EDA
  - Summarization of Written Paper
  - Groups of 5 Will Have 2 Orators

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Four Roles

- Role 4: Deliverer
  - Proposal, EDA, and Final Paper Will Follow RMarkdown Templates
  - Ensure that These Parts are Organized According To Templates
  - Ensure that These Parts are Free of Grammar and Spelling Errors
  - Ensure that These Parts are Clearly Explained and Hit All Requirements
  - Submit All Submissions Before deadlines in HTML
  - Submit Slides Before Final Presentation Day

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Four Roles

- Abbreviated Roles
  - Creator (C)
  - Interpreter (I)
  - Orator (O)
  - Deliverer (D)

- For Each Part, There Are Clearly Defined Expectations for Each of These 4 Roles

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Part 1: Project Proposal

- Select Data From Online (CIOD)
  - Must Contain At Least 5 Variables (Non-Identifier)
  - May Be Divided Into Multiple Data Sets (Requires Joins)
  - At Least 2 Variables Must Be Categorical or You Must Have a Clear Idea on How You Will Treat Numerical Variables as Categorical
- 2 Initial Questions From Each Member (CIOD)
  - Innovative Thought
  - Non-Trivial (Not Obvious)
  - Groups of 4 = 8 Questions
  - Groups of 5 = 10 Questions
- Delegate Your Roles (CIOD)

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Part 1: Project Proposal

- Template Submitted in HTML via Canvas by Sep 16
- Communication of Proposal (C)
  - Schedule a 10-minute Meeting with the instructor on Sep 17 or 19 (8:00 AM – 10:00 AM).
  - Have Computer With Data Ready
  - Information on:
    - Data Source
    - Variables Contained
    - Types of Variables
    - Questions Your Group Will Investigate and Variables of Interest
    - What Roles Your Other Members Are Taking

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Part 2: Exploratory Data Analysis

- Investigate Initial Questions (CIOD)
  - Divide All Initial Questions Evenly Among the Group
  - Each Member Must Create 2 Tables or Figures that Investigate Answers to the Questions Posed
  - 1 Table or Figure for Each Proposed Question

- Follow up Questions (CIOD)
  - Propose 4 Additional Questions You Want to Explore for Statistical Significance Based on What You Found in Pursuit of Answering Initial Questions

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Part 2: Exploratory Data Analysis

- Investigate Follow-Up Questions (CIOD)
  - Display 2 Tables or Figures Illustrating Your Attempt to Answer 2 of the Four Follow-Up Questions

- Summarize Investigation (CIOD)
  - Follow Rmarkdown Template
  - Results From Initial Questions Should Be Divided According to Each Member
  - Follow-Up Questions Should Be Proposed
  - Results from Investigating Follow-Up Questions

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Part 2: Exploratory Data Analysis

- Written Summary (CIOD)
  - Paragraph 1: Describes what you learned from your investigation of the initial questions.
  - Paragraph 2: Describes what you learned from your investigation of the follow-up questions
- Template Submitted as HTML via Canvas by Due Date (D)
- Schedule a 10-Minute with the instructor or IA (I)

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Helpful Advice

- Project Proposal
  - Choose Roles Based Off Strengths and Availability
  - Select a Dataset That is Interesting With Many Variables (>10)
  - Pick Very General Initial Questions
  - Work as a Team to Come Up With All Initial Questions Then Split Them Up as a Group

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Helpful Advice

- Exploratory Data Analysis
  - Meet to Discuss Results
  - Discuss Follow-Up Questions
  - Investigate the Follow-Up Questions as a Team
  - Discuss the Information That Will Be Written About in the Summary

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Helpful Advice

- General Advice
  - Do Your Job and Hold Each Other Accountable
  - Be Prepared to Evaluate Each Other at the End
  - Read the Rubrics To Ensure You Get All Points