Research Group "Contract" for the Second Project: Contract is due Wednesday April 6th

Goal: The second research project is due on Friday May 6th. Each group will submit (a) a slide presentation (in Powerpoint or the equivalent) of 20-25 slides in total. The slide presentation should be accompanied by (b) a slide-by-slide Word document (or equivalent) in which additional information is provided to supplement what is written on the Powerpoint slide images. The idea is to say in this supplementary document what you would have said aloud in a proper oral presentation. (Do not simply repeat what is already written on the Powerpoint slide.) Also to be submitted along with the final slide presentation: (c) the R program(s) used to compose the graphs, tables, and multivariate models that appear in the final slide presentation.

[*Points*: 30 of the semester's grand total of 100 points. Each <u>participating</u> group member receives the same number of points. Members who do not participate receive 0 points.]

In the week leading up to the May 6th deadline, each group will make a brief, time-limited oral presentation to the professor and graduate grader, and ideally (where time and schedules permit), to the class as a whole. The aim of this presentation is to help the group clarify its ideas, improve the sequencing of its argument, and identify where graphs, tables, and other analytic devices need further work.

[*Points*: an additional 10 points of the 100-point semester total. Each group member who has contributed to the project receives the same number of points. (There's no requirement for every group member to speak during the presentation.) Group members who have not contributed to the project receive 0 points.]

Content: The required content includes (1) A title slide that provides a compelling expression of the group's research aims; (2) a brief, up-to-date literature review (which should be more extensive than in the first research project); (3) a statement of the research question the group is addressing; (4) a slide defining the variable the team aims to explain---this is the so-called *dependent variable*---with a justification of how this variable is constructed; (5) at least 1 well-composed graph or table depicting the distribution of the dependent variable; (6) one or more slides defining the key *explanatory variable(s)*, with justifications of how these variables are constructed; (7) at least 1 bivariate graph and/or 1 bivariate table indicating how the dependent variable is associated with each of the key explanatory variables; (8) 1 table and discussion summarizing the substantive findings of a multivariate ordinary least squares or logit/probit regression, or alternatively, the results of a machine-learning model; (9) a concise summary of what has been learned, given the group's research question; and (10) a summary of research limitations and next steps.

Key Features of a Well-Functioning Team:

- Specific goals and outcomes
- Clearly defined team member responsibilities
- Good communication plan within the team and with the professor/TA

Roles within the Research Group: Role 1: Overall manager. Keeps the group on time and on task; ensures that disagreements are resolved. Takes responsibility for communicating with the professor and TA over the course of the project to raise questions and resolve problems. Responsible for submitting this Research Group Contract to the professor by Wednesday April 6th. Role 2: Note-taker. Summarizes group meetings and (especially) documents group decisions. Follows up with non-communicative group members. Role 3: R coders. All group members will take part in coding. The group may want to designate as its Chief Coder the person with the most experience in computer programming. Role 4: Final quality-control editor. Double-checks each slide and accompanying Word-document discussion for correctness and logical coherence; corrects the spelling and grammar of the slides, the Word document, and all comments made within the submitted R programs. Takes responsibility for ensuring that the submitted R program(s) will function correctly when run by the professor and TA.

Use the following table to facilitate discussion on the division of responsibilities within the group. You may want to fill out the first four columns and then meet as a group to finalize the agreed-upon roles. Every group member must be included in this table; every group member must have at least two roles.

Name	Best Days/ Times to Meet	Strengths	Skill Hoping to Develop	Agreed-Upon Roles in the Group
Jesse Freitag	Tues/ Thurs after 4pm, weekends	Previous Model building	ML knowledge	Overall Manager, Coder
Charlie Clark	M,T,Th before 12.	Prior DS experience	ML knowledge	Chief Coder, Quality Control
Kailey Ali	Anyday before 3pm	Organization	Advancing Analytical skills	Notetaker, QC
Gavin Vergara	T-Th After 8pm	Start things early	R syntax	Notetaker, QC
Qiushi Yin	T/Th PM	Organization	Communicati on coding skills	Coder, QC
Jhordyne Donaldson	Mon Wed PM/ Fridays	Communication, critical thinking	R syntax	QC, notetaker

Signatures of all team members (signing electronically is fine) indicating agreement with designated roles. **Every team member must sign this form:**

	T	Signature	
Name	Student ID	Signature	Date signed
Jesse Freitag	112514822	Jen John	4/4/22
Kailey Ali	112621760	fally vo	4/4/22
Charlie Clark	112093806		4/4/22
Gavin Vergara	112895499	Landy-	4/4/22
Qiushi Yin	111698677	04.	4/4/22
Jhordyne Donaldson	112209203		4/4/22
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