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## IDS Unit 2 <br> Design Project and Oral Presentation

Available data sets:

1. Food Habits
2. Time Use
3. Stress/Chill
4. Personality Color

Your mission is to ask and answer a statistical question using at least one data set above.

1. Your question must include a comparison of 2 distinct groups.
2. Your analysis should address whether any observed differences are real or could be simply due to chance.
3. You should use at least 2 of the following methods to answer your question with appropriate explanations:

- Merge data
- Create simulations
- Calculate probabilities based on simulations
- Use a Normal model
- Shuffle/permute data

You will have 5 days to complete this project with your assigned partner. You need to:

- Prepare an oral presentation (both partners need to participate) that includes:
- A 4-slide, 5-minute presentation
- An explanation of why you think your statistical question is interesting
- An interpretation of supporting plots and summaries that answer your question
- A reasoning of whether you think the outcome might be due to chance
- Submit a 2-4 page, typed, double-spaced summary of your analysis.


Project Assignment Sequence:


D Day 1: Decide on a statistical question with assigned partner; get approval from teacher

- Day 2: Working day for analysis - create plots and numerical summaries
- Day 3: Working day for analysis - create presentation (4 slides maximum)
- Day 4: Presentations

Day 5: Presentations

