Unit 4: Criteria and Feedback Rubric
Song Shuffling Simulation

Handout 6: Song Shuffling Simulation (view, copy)

Process for Rubric

- Before beginning the project ask questions and clarify understanding of the criteria.
- After completing the project, comment on areas for growth and strength and provide evidence (such as quote, a link to the handout/visual, etc.). If this is both self and peer feedback, use two different colors.
- Once you or your peers have completed the feedback section, share this rubric with your instructor so they can provide their suggestions in the third column.
- Make revisions to your project based on feedback from your peers and instructor. Add comments in the self/peer assessment column in a *different color* so your instructor can see any changes made.
- When criteria has been met, your instructor will record a “yes” in the final column.
- Be sure to complete the reflection question at the end of the rubric. This will help you make sense of your learnings and will be built upon in later units.

Note: For group projects, fill this out as a group. For individual projects, complete this individually.

High Quality Work

- High quality work contains the following aspects:
    - Clearly communicates and justifies claims
    - Documents evidence of working through the data science process
    - Demonstrates thoughtful revision based on peer/instructor feedback

Feedback Note

- Feedback is one of the most well-proven learning tools because it gives you a new perspective on your work and shows you areas of strength and growth. Your peers and your teacher believe you are capable of high-quality work and considering their feedback can help you achieve that. In turn, you can help your peers with their learning by providing them actionable, kind feedback.

Topical Outline

Unit 4: Handout 6

- Algorithmic Thinking
- Basics of Programming
    - Variables
    - Loops
    - If-then statements
- Simulation
- Variability
- Probability
    - Theoretical and Experimental Probability
    - Conditional Probability

Criteria	**Self/Peer Assessment** (Evidence and comments for growth and strength areas)	**Instructor Assessment** (Evidence and comments for growth and strength areas)	**Criteria Met Y/N**
Asking Questions			
Given in assignment			
Gathering and Organizing Data			
Inputs class data set into program Collects, records, and organizes data on how many times a song is played as well as the distribution of the class playlist			
Modeling			
Calculates experimental probability of each genre of music in the trial (Probability)			

Generates pseudocode to explain thinking and steps of song-shuffling algorithm (Algorithmic Thinking) Creates a simulation program to model song shuffling (Simulation)			
Analyzing and Synthesizing			
Responds to unit question referencing specific data Makes connections between experimental and theoretical probabilities and the song shuffling simulation program (Probability and Simulation) Shows understanding of how and when coding a simulation can be a useful tool in data science (Simulation)			
Communicating			
Responds to project questions in a thorough and concise way Provides evidence to support statements			
Ethical Considerations			

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Reflection:

After doing this project, list what concepts you feel confident in understanding and what still feels tricky or unclear.