Overview: The purpose of the project is to provide you the opportunity to show your ability to solve problems using computational programming. For your project, you will be expected to come up with a problem to solve using your acquired knowledge on advanced data structures and procedures in Python programming. The problem that you choose to solve must be original. To assure that your problem is original, you will be expected to develop a prospectus that details the problem that you are planning to solve using Python. For more details regarding the prospectus, refer the Prospectus section below. Prospectus: For your final project, originality will be highly emphasized. The program(s) that you create as part of your final project MUST be your own idea and work. Therefore, you will be required to create a prospectus that details your project idea prior to implementing any code. Likewise, you will have to defend your prospectus in class before being allowed to proceed with implementing your project (NO EXCEPTIONS). For your presentation, you will be required to discuss: ● What problem you are planning to solve? How does this problem currently impact society? ● What data structures you are proposing to use to solve this problem? see Required Data Structures section for further details. ● What real-world/societal impact will your project exhibit? You Required Data Structures: you have been/or will be exposed to a variety of advanced data structures that are comprised of: Conditions/Loops, Lists/Tuples, Functions/Recursion, Advanced String Usage and Dictionaries/Sets. For this project, you will be expected to build a program that encompasses one of the five combinations of data structures: Data Structure Combinations Combination #1 Functions OR Recursion, Conditions OR Loops, and Lists or Tuples Combination #2 Functions OR Recursion, Conditions OR Loops, and Advanced String Usage Combination #3 Functions OR Recursion, Conditions OR Loops, Dictionaries OR Sets