WEEK 3 & 4

Hi, after completing two weeks and an assignment, you have Explored common probability distributions, such as the normal, binomial, and Poisson distributions. Now, we are finally prepared to learn some more tricks and tools. If u have still not completed the previous assignment, I suggest you do that before moving forward. don't forget to complete the MATLAB onramp course .so; here are the milestones waiting for you.

Week 3: Probability Distributions and Random Variables

Task 1: Study properties and characteristics of random variables.

Study material:
MATLAB documentation on probability distributions and random variables.

Task 2**:** Learn about sampling distributions, point estimation, and interval estimation.

Task 3: Understand hypothesis testing and perform tests using MATLAB.
Study material:
"Statistical Inference" by George Casella and Roger L. Berger.
MATLAB documentation on statistical inference.

Week 4: Regression Analysis and Data Modeling

Task 4: Explore linear regression analysis and its applications.
Task 5: Learn about multiple regression and model selection techniques.
Task 6: Apply regression analysis to real-world datasets using MATLAB.
Study material:
"Applied Linear Statistical Models" by Michael H. Kutner, Christopher J. Nachtsheim, John Neter, and William Li.
MATLAB documentation on regression analysis.

P.S:-As discussed earlier, we will be working on a problem statement involving these concepts; you were expected to come up with an idea for the same. We will be floating a Google form soon in which you are required to share your idea. We will select one aligns more to our goal and is common. Remember, it is mandatory for everyone to fill out that form.