Problem Statement: Beginner: (no chemical engineering background is required, just visualization, logical indexing and unit conversion knowledge is needed)

You cracked CH_4 (methane) and n-heptane by passing them through a quartz tube, that is 10-25 mm diameter by 200-250 mm long packed with 5-6 mm quartz fragments, and heated to 1100-1400 °C. You examined the acetylene yield of your experiments as a function of temperature, contact time, and quantity of H_2 added to the inlet gas and you captured your experiment results in acetylene.mat dataset that is available with MATLAB Statistics and Machine Learning Toolbox. You want to present these experimental results to your manager, who is not a programmer. Your manager asked you to create an interactive app using MATLAB App Designer to enable other engineers at your company to do the following:

- Visualize how different input variables relate to each other (x1 vs x3 etc.). The app should allow users to select different inputs and display scatter plots.
- The user wants to have an option to compare all these plots side by side as well.
- By selecting one input parameter, the user wants to see all the other input parameters corresponding to that input and associated output. The app should be able to tell the user whether this is the maximum conversion achieved in this experiment for the selected input parameters.
- For any selected temperature, this app should also show temperature values in Fahrenheit as some engineers prefer British units.