The goal of this project was to create an interactive visualization of rental units near UC Davis using scatter plots. The project evolved from a simple scatter plot of geographic coordinates to a more sophisticated interactive map, coupled with a scatter plot of price versus square footage, and a dynamic table displaying detailed information about selected rentals. This report outlines the steps taken, challenges encountered, and future improvements for the project.

The project began with the creation of a scatter plot using longitude and latitude data points to represent the locations of rental units. However, it became evident that a map-based visualization would be more visually appealing and practical for users to interact with. Users would benefit from the ability to zoom in and out of specific locations, providing a more intuitive understanding of rental unit distributions.

To implement the map-based visualization, I leveraged both lecture materials and additional resources from GitHub and Google. The map was created using the plotly package in R, which allowed for the integration of interactive features such as zooming and panning.

I aimed to use the crosstalk package to enable communication between the map and a scatter plot of price versus square footage. The goal was to highlight the corresponding point on the scatter plot when a point on the map was clicked. While the linking between the two plots was successfully implemented, I faced significant challenges with building the dynamic table that would update with new information upon clicking a point.

Building the dynamic table proved to be complex. I began by adapting code from lecture materials that opened a URL upon clicking a point. I attempted to modify this code to populate a table with rental information using insights gained from ChatGPT and my own research. Despite these efforts, I encountered persistent issues that prevented the table from functioning correctly.
Realizing the need for a different approach, I decided to restart the implementation from scratch. This fresh attempt resulted in working code that successfully integrates the map, scatter plot, and dynamic table into a single HTML page.