STM4PSD Assessment 2 PART III Report Michael Le 21689299

First off when we compute the confidence Intervals for Single-Mean, there are two different situations we must consider. One we assume we know the standard derivation population, Second, we do not know if were given the population standard derivation. We also must assume that were only computing 95% confidence intervals for all the dot points the executive wishes to investigate further. We computed the average or means of casual, registered, and total users which are 973.0893,3331.929 and 4305.018 respectively. Furthermore, for the single mean for the casual users their 95% confidence intervals are (764.9843 1181.1942) and (760.3079,1185.8707) respectively. For the registered users their 95% confidence intervals are (2935.313,3728.545) and (2926.4,3737.457) respectively. Lastly the total of all bike age users is (3773.277,4836.808) and (3761.277,4848.759) respectively. However, it will be appropriate to use the z-test According in Result 8.7.1. we consider the sample size (n) to be greater or equal to 30 to be large, to conclude that we are 95% confident that their respective mean lies within all the intervals. For the 95% confidence Interval for Proportion for Registered users is (0.6644142,0.8835137), we are 95% confident that the true probability of registered users occurs between 0.66 and 0.88. Computing the 95% confidence interval for the paired difference between registered and casual users are (2006.980,2710.699), to conclude that were 95% confident that the mean difference for registered and casual users is between 2006.98 and 2710.699. Lastly, the 95% confidence interval for yearly differences in bikeshare usage using the t-test unpaired is (-2705.1444, -708.0699), to conclude we are 95% confident is reduced somewhere between -2705.1444 and -708.0699. Overall completes the conclusion of the report providing the insights on the facets of the bike-sharing system.