QMBU 450 Homework 2 Report

Hypothesis: There is a reverse relationship between unemployment rate and GDP per capita.

Data: For finding whether the hypothesis is true or not, we used the data for the unemployment rate and GDP per capita of the world from the World Bank.

Method: We used simple linear regression for to find out whether there is a statistical significance between these two variables. The results were:

Beta: 1398.79179864

R^2: 0.00027373979004252647

Var (Beta): 3911.01335853
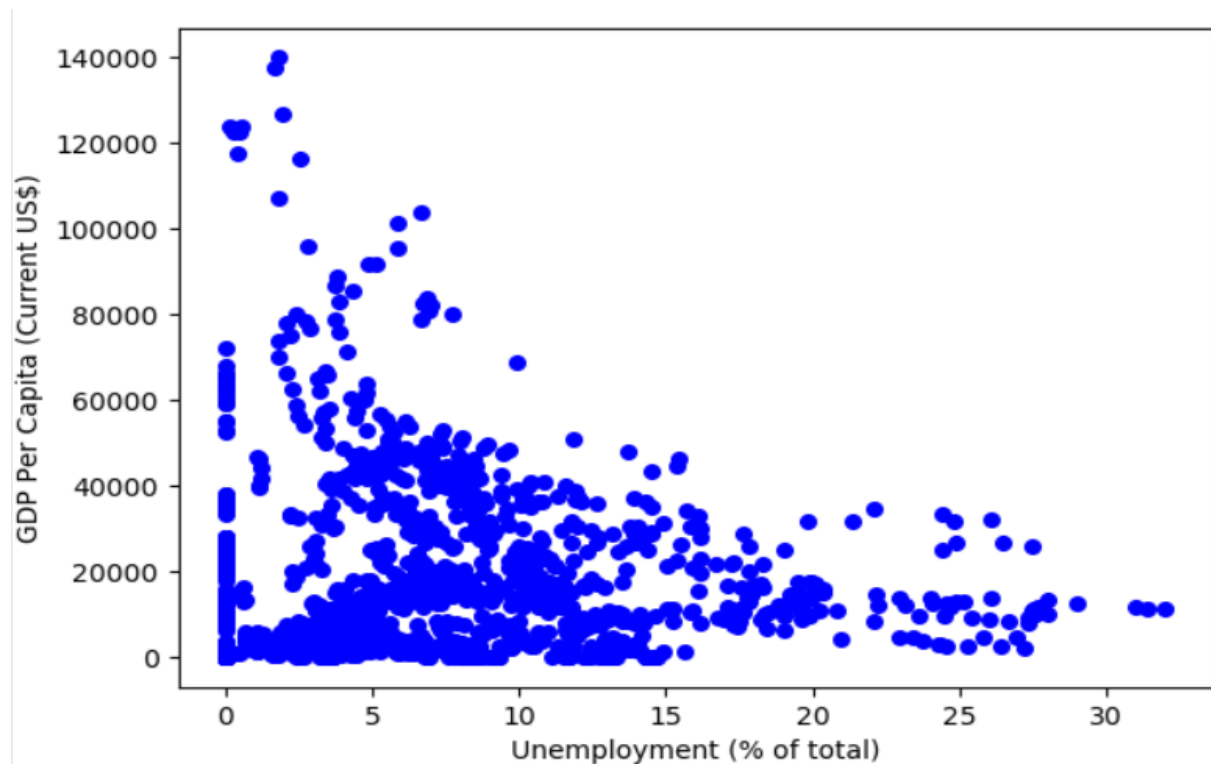
Intercept: 17075.164801161915

Std: 62.53809525828333

Slope: [-55.98841306]

Upper Bound in 95% confidence interval: 1521.36646534

Lower Bound in 95% confidence interval: 1276.21713193

Scatter Plot:

Results: By looking from the scatter plot, we can say that there is a reverse relationship between these two variables since GDP per capita decreases as the unemployment rate increases even the shape is not exactly linear but more like convex. Hence, this can prove our hypothesis, but it is hard for us to make this assumption absolutely since the standard deviation of the model is high, means that there is high chance of error when we obtain the result from the model.