**Assignment 6**

**Objective**: Apply Bayesian regression analysis to replicate and extend the Ordinary Least Squares (OLS) model you developed in Assignment 4, incorporating visualizations that were covered in the class.

**Tasks:**

1. Replicating OLS Model with Bayesian Approach:

* Using the same dataset from Assignment 4, develop a Bayesian regression model that mirrors the OLS model.

1. Implementing the Model:

* Use PyMC3 or a similar Bayesian library to implement the regression model.
* Ensure that your model includes appropriate priors that reflect your assumptions about the data.

1. Visualization and Interpretation:

* Create visual representations of the posterior distributions of the model parameters.

1. Comparative Analysis:

* Compare the results of the Bayesian model with the OLS model from Assignment 4.
* Briefly discuss how the Bayesian approach may provide additional insights or different perspectives on the data.

**Submission**: A Jupyter Notebook containing the Bayesian regression model, visualizations, and a comparative analysis of the Bayesian model versus the OLS model. Send it to the “announced” e-mail address. Name your notebook file as follows: Name\_Surname\_Assignment6.