**Intro to AI HW2 Outputs**

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Visualizations

Chart, histogram

Description automatically generated

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Correlation Matrix with respect to #Retweets

#Retweets

#Followers 0.134503

#Friends 0.026502

#Favorites 0.890328

Positive\_sentiment 0.000433

Negative\_sentiment -0.010565

Hour\_of\_the\_Post -0.009850

#Mentions -0.015828

#Hashtags -0.002856

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Least Squares Method Performance Metrics

MAE is 17.861671960362546

MSE is 11631.458344394678

R2 Score is 0.7986811923542654

Features Predictions

0 #Followers -1.388267

1 #Friends 2.588393

2 #Favorites 5.117073

3 Positive\_sentiment 22.364804

4 Negative\_sentiment -0.608888

5 Hour\_of\_the\_Post 48.648459

6 #Mentions -0.616327

7 #Hashtags -0.165251

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Ridge Regression Performance Metrics

MAE is 17.861663557212534

MSE is 11631.458344133955

R2 Score is 0.7986811923587781

Features Predictions

0 #Followers -1.388247

1 #Friends 2.588398

2 #Favorites 5.117055

3 Positive\_sentiment 22.364835

4 Negative\_sentiment -0.608883

5 Hour\_of\_the\_Post 48.648422

6 #Mentions -0.616322

7 #Hashtags -0.165246

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Lasso Regression Performance Metrics

MAE is 17.795504611705027

MSE is 11631.531710517213

R2 Score is 0.7986799225237873

Features Predictions

0 #Followers -1.226571

1 #Friends 2.578041

2 #Favorites 5.066627

3 Positive\_sentiment 22.661557

4 Negative\_sentiment -0.616963

5 Hour\_of\_the\_Post 48.491673

6 #Mentions -0.624412

7 #Hashtags -0.173176

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Decision Tree Performance Metrics

MAE is 28.536726836341817

MSE is 195353.7937896895

R2 Score is -2.381209102963753

Features Predictions

0 #Followers 0.0

1 #Friends 5.0

2 #Favorites 1.0

3 Positive\_sentiment 113.0

4 Negative\_sentiment 0.0

5 Hour\_of\_the\_Post 26.0

6 #Mentions 0.0

7 #Hashtags 0.0