CS 210 Project Phase 3

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Applying Machine Learning Models

K Nearest Neighbour Model:

In this section, I applied the KNN Model with different numerical values ranging from 1 to 30 and alter the code in a way that, the program will store the best result and its' neighbour value. After the run, the program has given the best neighbour as 5, the mean square error value as 0.06719740572964125, and the r^2 score as 0.9159935921659893.

Random Forest Regression Model:

In this section, I applied the Random Forest Regression Model with variety of numerical values ranging from 50 to 1000 having step size as 10. After the run, the program has given the lowest mean squared error with 50 and using that number it gave the Random Forest mean Squared Error as 0.12541247781777304, and the r^2 score as 0.8432163913972888.

Conclusion:

Both the K Nearest Neighbour and the Random Forest Regression Model have satisfactory outcomes with having significantly high r^2 scores. However, when the models compared to their outcomes it can be seen that the K Nearest Neighbour model have more accurate and feasible outcomes having a higher r^2 score rather than the Random Forest Regression Model.