**Capstone Project Submission**

| **Team Member’s Name, Email and Contribution:** |
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| **Souvik Bhattacharyya**  Email. id- souvik.ranchi@gmail.com  Contribution role:  Data Loading (read data (Rossmann Store dataset and Store dataset.csv) from the drive)  Data Exploration  Data Preprocessing  Data Analysis and Visualization  Training and testing data  Modeling  Validating  Testing the accuracy |
| **My GitHub link is below:** |
| GitHub Link: - <https://github.com/Souvik0651/Rossmann-Sales-Prediction--Regression.git> |
| **Please write a short summary of your Capstone project and its components. Describe the problem statement, your approaches, and your conclusions. (200-400 words)**  **Project Summary**  This project deals with businesses that use sales forecasts. Rossmann store managers are tasked with predicting their daily sales for up to six weeks in advance. Store sales are influenced by many factors, including promotions, competition, school and state holidays, seasonality, and locality. With thousands of individual managers predicting sales based on their unique circumstances, the accuracy of the results can be quite varied. what revenue they will generate during a specific time period and arm themselves with powerful and strategic business plans. Growth plans are affected by the revenue the company is going to make in the coming months, and for these plans to be as effective as they are planned to be, it is important for these forecasts to also be as good. The work here predicts the sales for a drugstore chain in the European market for a time period of six weeks and compares the results of different machine learning algorithms.  We started with loading the data, then did exploratory data analysis, null value treatment, encoding of categorical columns, feature selection, and then model building. After implementing three machine learning models in the dataset to find the six-week prediction, we can see that the decision tree regressor outperforms the other two models, which underperformed due to poor prediction accuracy. In contrast, the Decision Tree regressor has 97% of accuracy, which is a decent accuracy score. So, we can deploy this model to solve business problems. |