Model Development Phase Template

Date	08 May 2024
Team ID	722312
Project Title	Walmart Sales Analysis For Retail Industry With Machine Learning
Maximum Marks	4 Marks

Initial Model Training Code, Model Validation and Evaluation Report

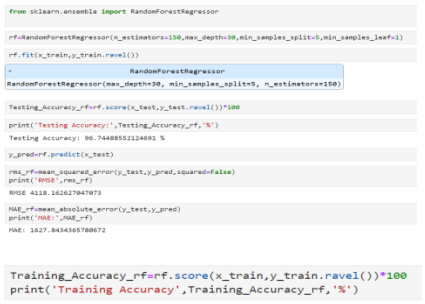
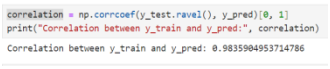
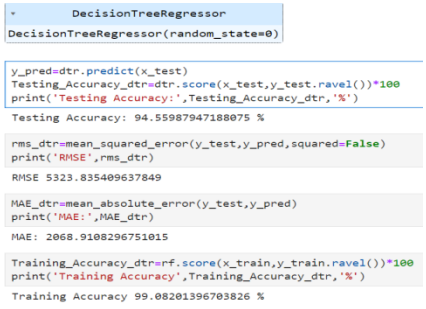
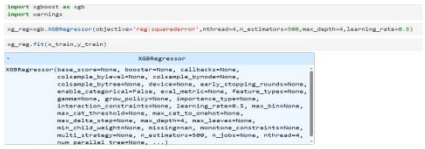
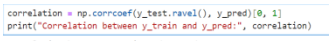
The initial model training code will be showcased in the future through a screenshot. The model validation and evaluation report will include classification reports, accuracy, and confusion matrices for multiple models, presented through respective screenshots.

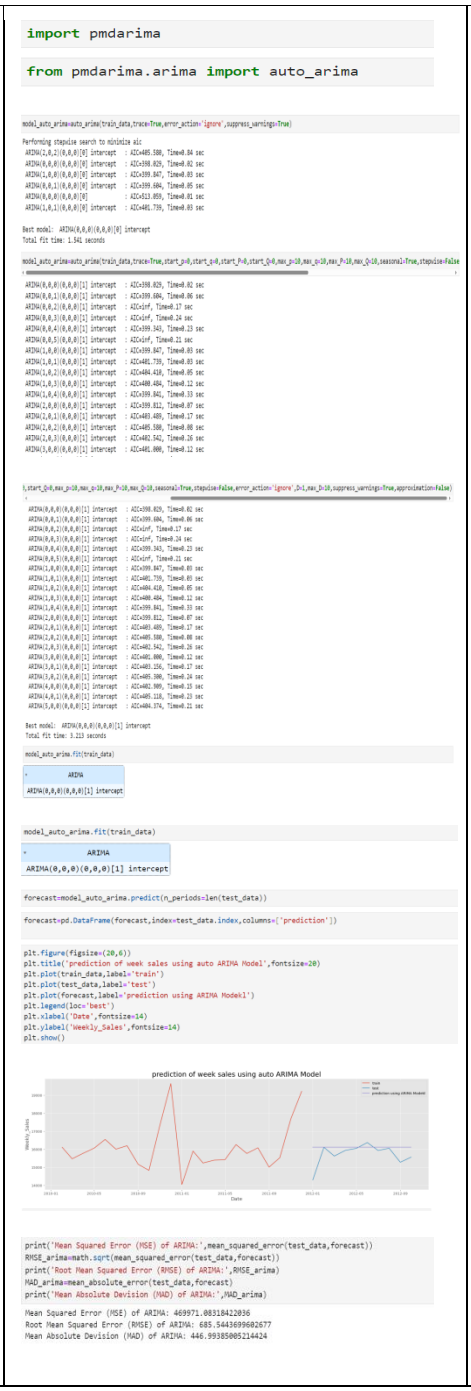
Initial Model Training Code:

Paste the screenshot of the model training code

Model Validation and Evaluation Report:

Model	Classification Report	Accuracy	Correlation Matrix

Random Forest	Screenshot of the classification report  	Accuracy Value: 96.74488552124691 %	Screenshot of the confusion matrix 
Decision Tree	Screenshot of the classification report 	Accuracy Value: 94.55987947188075 %	Screenshot of the confusion matrix 
XgBoost	 	94.12206327106377 %	

model_auto_arima		nan	nan

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|       model        |       training         |    testing accuracy    |          RMSE          |   MAE/MAD(ARIMA)   |
+--------------------+------------------------+------------------------+------------------------+--------------------+
|   Random Forest    | 99.08201396703826 | 96.74130901603351 | 4120.424388762434 | 1626.570974092273  |
|   Decision Tree    | 99.08201396703826 | 94.55987947188075 | 5323.835409637849 | 2068.9108296751015 |
|      XgBoost       | 94.09053875232357 | 94.12206327106377 | 5533.919190794416 | 3068.009812765289  |
| model_auto_arima |        nan         |        nan         | 685.5443699602677 | 446.99385005214424 |
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