



SALES PREDICTION

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Problem Statement

- We will be predicting a full year worth of sales for three items at two stores located in three different countries. This dataset is completely fictional, but contains many effects that you see in real-world data, e.g., weekend and holiday effect, seasonality, etc. The dataset is small enough to allow you to try numerous different modeling approaches.



Python Packages Used

- numpy
- pandas
- scikit learn
- r2 score
- Matplotlib

Types of Algorithms used



- Randomforest Regression Algorithm
- Linear Regression Algorithm
- Logistic Regression Algorithm

Random Forest Regression



- Random Forest Regression Algorithm:
 - Random forest regression is a machine learning algorithm that uses a group of decision trees to predict a numerical value.

Linear Regression



- Linear Regression Algorithm:
 - It is a popular algorithm used in statistics to model the relationship between a dependent variable and one or more independent variables.

Logistic Regression



- **Logistic Regression Algorithm:**
 - Logistic regression is a statistical method used for binary classification problems.

Output



| row_id | target |
|--------|----------|
| 26298 | 397.253 |
| 26299 | 578.94 |
| 26300 | 157.266 |
| 26301 | 689.625 |
| 26302 | 953.268 |
| 26303 | 287.214 |
| 26304 | 590.842 |
| 26305 | 752.689 |
| 26306 | 198.446 |
| 26307 | 1034.202 |
| 26308 | 1589.249 |
| 26309 | 444.573 |
| 26310 | 403.381 |
| 26311 | 659.742 |
| 26312 | 208.348 |
| 26313 | 792.148 |
| 26314 | 1215.38 |
| 26315 | 315.543 |
| 26316 | 332.921 |
| 26317 | 514.564 |
| 26318 | 146.339 |
| 26319 | 554.942 |
| 26320 | 857.902 |
| 26321 | 266.354 |
| 26322 | 505.539 |



Output-Deployment

date
2002-02-21

country
Finland

store
KaggleMart

product
Kaggle Hat

Clear Submit

sales
[177]

Flag



Output-GUI

Sales Prediction

SALES

Date (YYYY-MM-DD):

Country:

Store:

Product:

Predicted sales: [1333.775]



Comparison Table

| Algorithm | Accuracy |
|-------------------------|----------|
| Randomforest Regression | 0.94 |
| Linear Regression | 0.24 |
| Logistic Regression | -0.61 |

Execute of code



Here's a link to [colab.com](https://colab.research.google.com/).



THANK YOU