

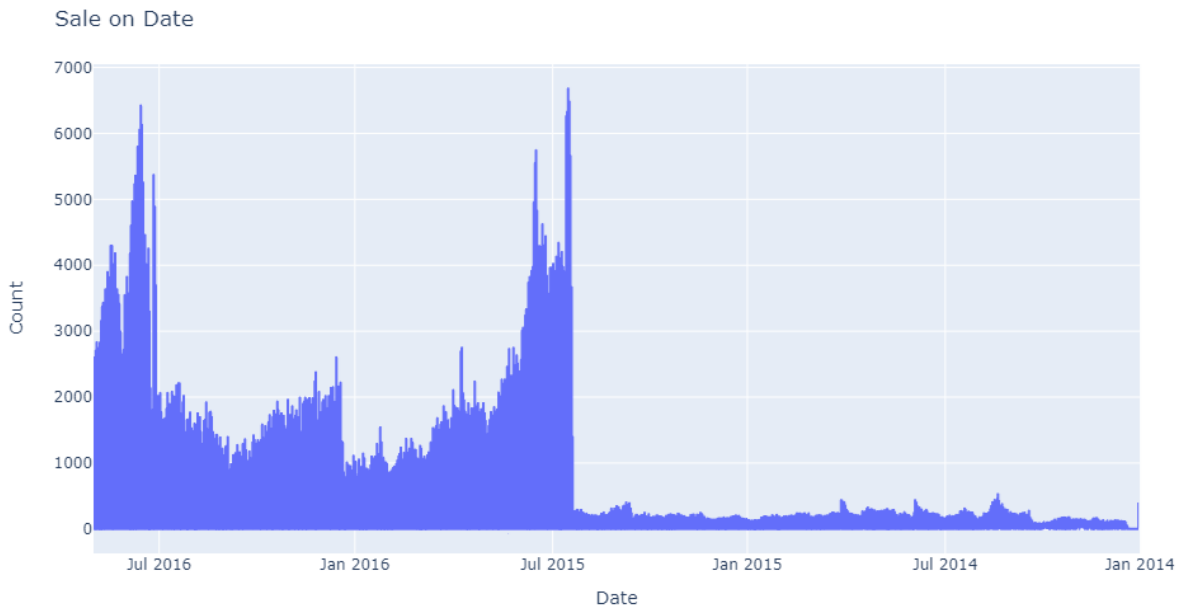
Name : fahema sultana , Id : 1711593042 , section : 3 , course : cse445
Nsu email : fahema.sulatana@northsouth.edu semester : spring 21

2. Regression Task: [Daily Demand Task]

Shape of sale dataset (46116, 3)

The data set has 46116 row and 3 column

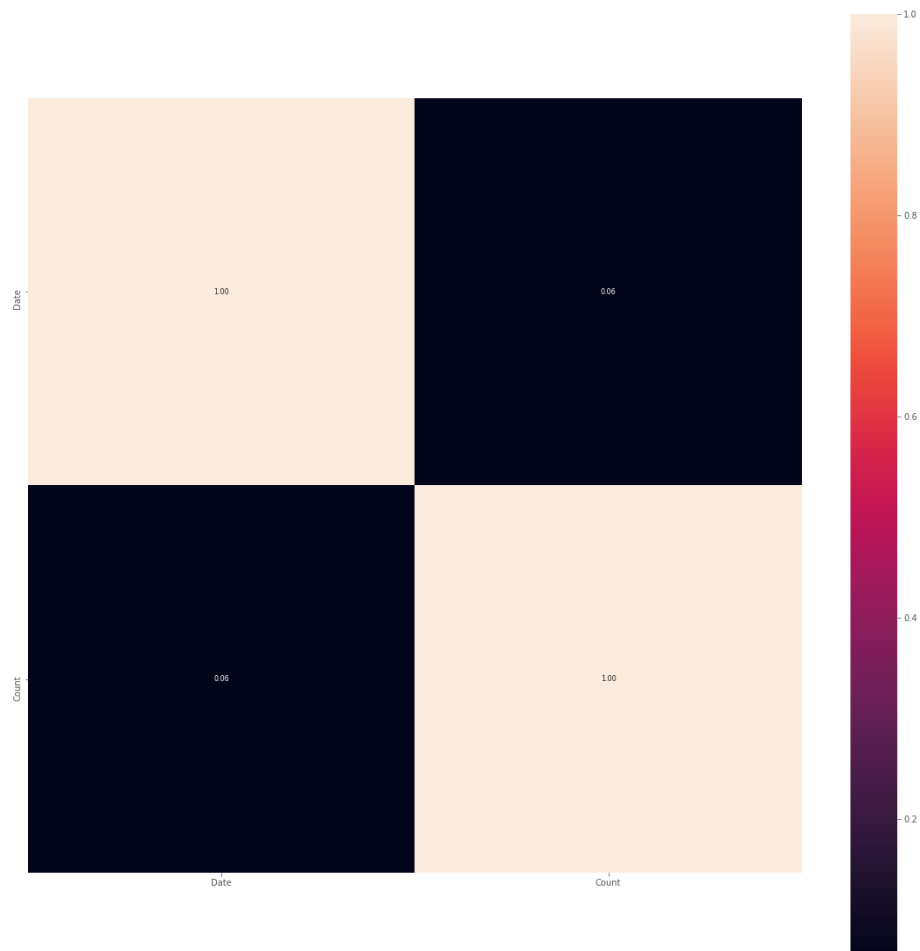
Graph :



We can see the sale on date is sometimes increase exponential and sometimes low .

Correlation Matrix :

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Regression Model :

In this data set to predict the sale on daily date we use linear regression at 1st . but we didn't find a good mse because from the above graph we can see the data set is not linear , then we use the ridge regression method .

Table 1 :

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Model	Train score	Test score	Train MSE	Test MSE
Linear regression	0.6793	0.6614	32547.27511299 258	31321.26856747 8422
Ridge REgression	0.0041	0.0029	101084.3023622 8705	92243.82689252 943