Credit Card Transaction Variable Creation

High-Level Summary:

- Created 397 total variables including two target encoded variables

- "DOW_risk": Day of Week Fraud Risk, index 396 in .xlsx

- "state_risk": State Fraud Risk, index 397 in .xslx

- Used entities: 'Cardnum', 'Merchnum', 'Cardnum_Merchnum', 'Cardnum_Merch zip', 'Cardnum_Merch state', to create variables for the Average, Maximum, Median, Total, as well as Actual (Average, Maximum, Median, Total) for 0, 1, 3, 7, 14, & 30 day intervals.

- This created 49 variables for each of these 5 entities

- Used entities same entities above to create frequency variables for each entity over 0, 1, 3, 7, 14, & 30 day intervals.

- This created 30 variables

- Used same entities above to create days since last of each entity.

- This created 5 variables.

- Used entities: 'Cardnum', 'Merchnum', to create variables for transaction amount and average transaction amount for each entity over 7, 14, and 30 day intervals over a norm of 1 and 0.

- This created 24 variables.

- Used the same five entities as before to create variables of the transaction amount minus (Average, Maximum, and Median) over 0, 1, 3, 7, 14, and 30 day intervals for each entity.

- This created 95 variables.