Title: Meat Predictor
Group Members: David Hutsell, Saidee Padilla, Silvano Ross, Ryan Svendson

Data Source: Kaggle
https://www.kaggle.com/datasets/chinmayshanbhag/historical-price-data-of-4-meats-commodity

Purpose: 1 year, 5 years, 10 year prediction meat prices based on historical data to determine budget assuming we are a grocery store budget manager or personal budget planner. Save the model as a pickle file at least. Pickle files are bits, wb (write bites)

New Machine Learning Model: XGBoost,

Break Down:

2 do one type of modeling Facebook Prophet - David, Saidee
2 do new machine learning model - Ryan, Silvano

Course of Action:
1. 2 people take on Prophet, 2 People take on XGBoost - create extra features, number of year and month separately,
2. Chicken to begin with : Display: 1, 5, 10 year prices, performance metrics = R^2, maps score, mse score
3. Seasonality - we'll find out
4. Use our pickled model pickle file to make predictions for futures trading maybe

Extras Features if time allows
Alert for futures trading in selected meat with respect to seasonality.

Comment: need accuracy, how accurate are our predictions,
Go back in time to test predictions
For 5 years, take 15 years as training and last 5 years as testing dataset
Metrics: R^2, maps score, mse score, - look at two are or three scores to determine which model is better
Orbit, gray kites, aws deep ar
Model - pickle a model after fit, dump into s3 bucket (boto3, aws SDK), load into lambda function, run .predict, use get_object api