



# Parcel project

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# Introduction



- ▶ Rick Hagenaar
- ▶ Emir Açıkgöz
- ▶ George Ottens
- ▶ Ismail Büyükşimşek
- ▶ Laurine van de Stolpe
- ▶ Idriss Bensaga

# Content



- ▶ Recap
- ▶ Predicting time series
- ▶ Model implementation
- ▶ Planning
- ▶ Questions

# Recap



- ▶ Product owner: PostNL
- ▶ Assignment: Predicting the amount of processed packages
- ▶ Data: amount of daily packages processed, for 300 customers



# Predicting timeseries

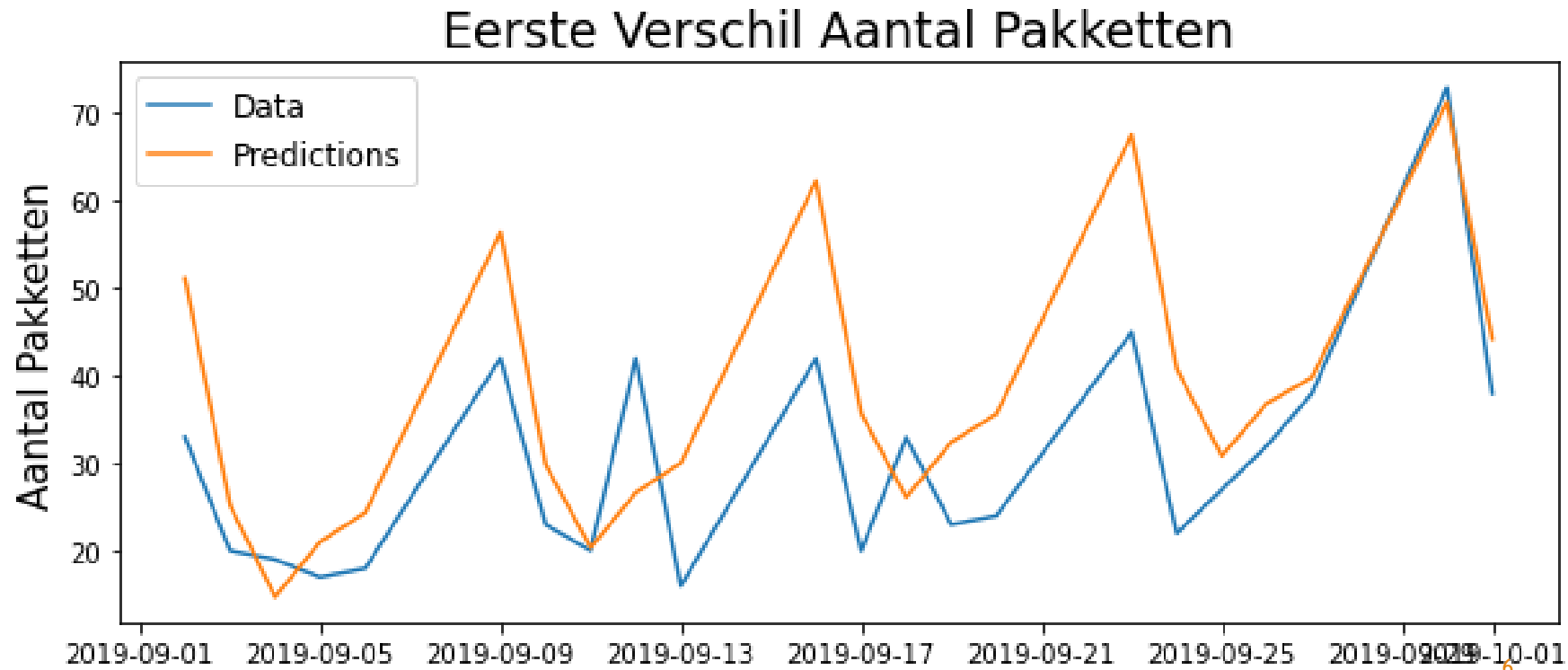


- ▶ 2 Different kinds of models:
  - ▶ Autoregression moving average
  - ▶ Multi Variabele Lineaire Regression

# Model implementation



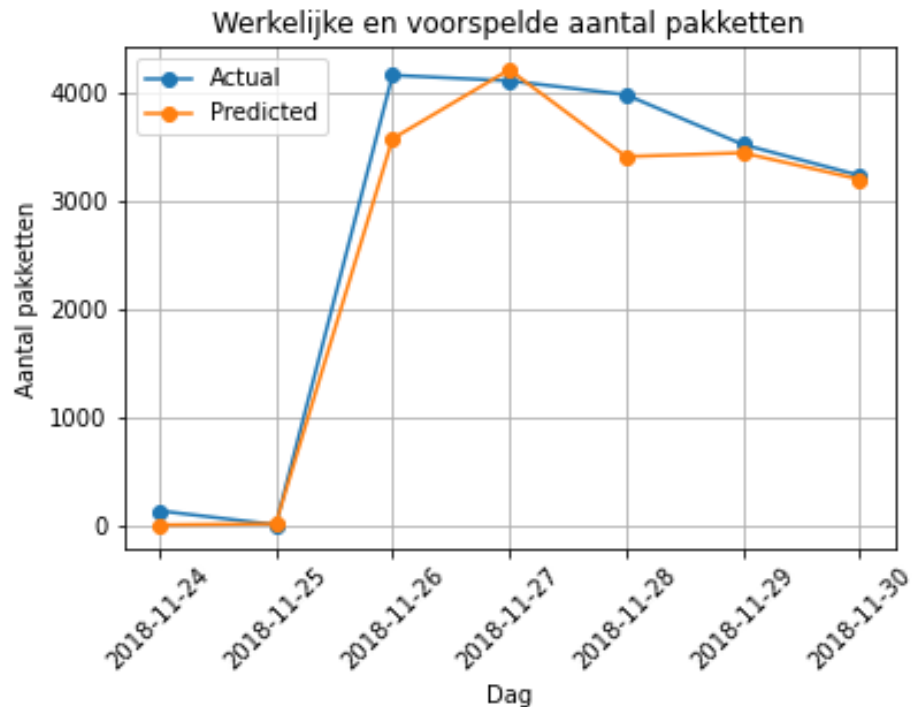
- ▶ Autoregression Moving Average model
- ▶ Predictions for September 2019



# Model implementation



- ▶ Multi Variabele Lineaire Regression
- ▶ Prediction for the last week of November 2018



- ▶ Root Mean Squared Error: 318.13378967805477
- ▶ R2 score: 0.9656203094322737

# What we will do for the next week



- ▶ ARMA ---> SARIMA
- ▶ Features



# Questions

