Sales Volume Prediction

An online retailer called Buy-a-lot[1] has recently opened in South Africa and wants to optimise their stock inventory by predicting sales volumes.

You are given a .csv file of all sales records from the beginning of this year (01/01/2019 - 30/06/2019) and are required to predict the total sales volumes (total quantity of products sold) for the next month of this year (01/07/2019 - 31/07/2019).

Your solution should consist of the following components:
1. Ingestion
   ○ Read from the .csv file
   ○ Select the relevant information from the dataset
   ○ Note: negative volume orders are returns and should be included
   ○ Note: zero price orders are discounts (e.g. buy one, get one free) and should be included
   ○ Note: missing days can be assumed to have no volume
2. Modelling
   ○ Use any applicable statistics/machine learning method (e.g. ARIMA, GLMs, neural nets, SVR, …) to predict future sales volumes.
   ○ Note: only expected sales volumes are required and uncertainty bounds are not required.
   ○ Your predictions should be given as the total daily expected sales over the period 01/07/2019 - 31/07/2019.
   ○ You are only required to predict the *total* sales volume, but you may find individual product categories and invoice information helpful to achieve this.
3. Simple reporting
   ○ Write your results to a file format that (non-technical) management is likely to be able to read (e.g. word, pdf, html).
   ○ The report doesn't have to be detailed. It only needs to have a heading, a simple time series plot and a table. The plot should show daily past and future total sales volumes. The table should show daily future sales volumes, with dates and volumes as columns.
   ○ Hint: consider making your script produce images and a Markdown file. Then use Pandoc to convert to the desired format.

The above steps should run end-to-end (csv to report) with a single call to a script. Your solution must be written using only open source tools (e.g. python, R, ...) so we can run your solution and check your results.

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[1] A fictitious retailer