

# Impact Data Science Assessment

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## Case Study: Product Demand Forecasting

Provide one step ahead forecasts for a minimum of 30 product time-series. You will be assessed based on your exploration of the data, choices in terms of preprocessing, feature engineering, model selection, validation, ideas for future improvement, as well as your presentation of the final results. As a Data Scientist at Impact, one aspect of your roll will be to provide stable, accurate, and scalable forecasts across a vast number of time-series. In this assessment we are just as interested in your *justification* and *rational* for the decisions you make in your analysis as model performance. The data is located within the zip file in csv form. Please provide a short write up of your analysis, and perform the analysis in either R or Python.

Reference: <https://www.kaggle.com/felixzhao/productdemandforecasting/home>

Product_Code	Warehouse	Product_Category	Date	Order_Demand
Product_0993	Whse_J	Category_028	2012/7/27	100
Product_0979	Whse_J	Category_028	2012/1/19	500
Product_0979	Whse_J	Category_028	2012/2/3	500
Product_0979	Whse_J	Category_028	2012/2/9	500
Product_0979	Whse_J	Category_028	2012/3/2	500
Product_0979	Whse_J	Category_028	2012/4/19	500

