

PREDICTING BACK ORDERS TO OPTIMIZE INVENTORY MANAGEMENT

Synopsis of Project

Submitted by:

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IN

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Under the Guidance

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CERTIFICATE

Certified that **Shubham Aggarwal** (enrollment no. 020144802814) has carried out the major project work presented in this report entitled “**Predicting Back Orders to Optimize Inventory Management**” for the award of **Bachelor of Technology in Electronics and Communication Engineering** from Maharaja Agrasen Institute of Technology affiliated to GGSIP University, Delhi under my/our supervision. The report embodies results of original work and studies as carried out by the student(s) himself/herself/themselves and the contents of the report do not form the basis for the award of any other degree or to anybody else from this or any other university/institution to the best of my/our knowledge and belief.

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ABSTRACT

As a result of the tax reduction on soft drinks and beers in Denmark, the demand for craft beers had a major growth. A problem might appear to the brewers when the request of quality beers rises; the experience-based prediction could run short of ways in dealing with the situation that they cannot meet the demand. With limited production capacity, an accurate backorder forecasting can be essential for the producers. To foresee many future random orders, a more advanced prediction method can do a favor.

With a machine learning prediction approach, this report discusses how to use machine learning tools to predict future backorders based on producers' historical data. The report will give a brief introduction to Danish beer history and present the situation, explain how to process historical data, create a machine learning module and provide forecasting recommendations. A dataset of relevant data from open source was considered. The final algorithm will be tested and evaluated on this dataset. It is expected that the outcomes of this work will be of value for the future of Danish brewery.

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