# **Recommendation Engine**

## **Customer**

The customer here is a leading value-add industrial distributor offering products, services and solutions that enable its customers to achieve higher levels of growth, productivity, and profitability. Customer’s industry-leading CSAT ratings driven by customer-centric culture and obsession with delivering solutions that enable customer success.

## **Background/Brief Description**

Customer uses an expensive out-sourced recommendation engine, the results of which are embedded into the B2B ECommerce website. This engine provides recommendations like “Customers also liked”, “Customers also viewed”, “Previous Purchases” etc.

Objective is to replace this with a cheaper home grown option.

## **Problems Faced**

* Expensive Recommendation Engine, not enough micro personalization (Like industry domain, location etc)

## **Solution Expected**

Develop an application which predicts user preference and help your customer to market the same by various methods.

Predictive Recommendation Engine:

* Build a recommendation engine that can predict recommendations based on both the users usage history as well as industry background.
* The users past history can include products searched for, products purchased and products in the wish list.
* The engine must keep learning continuously and refine the recommendations.
* Recommendations can include “Customers also liked”, “Customers also viewed”, “Previous Purchases” , “Customers in this Domain also bought”, “Customers using this machine also bought” etc.

**Good to have**: The engine should also suggest which product recommendations must be suggested to the user in the home page and which of them should be sent across as notifications.

## **Users**

* End customers who browse and order in the B2B ECommerce website.

## **Acceptance Criteria**

* Engine should accept input attribtues like customer ID (Internal ID), current page (Product Details Page, Search Results Page etc) and provide a recommendation of 16-20 items
* Recommendation Engine should return recommendations in < 0.5 seconds for a set of 16-20 items.
* Recommendations can include “Customers also liked”, “Customers also viewed”, “Previous Purchases” , “Customers in this Domain also bought”, “Customers using this machine also bought” etc.

## **In-Scope And Out of Scope**

* N/A

## **Assumptions**

## Appropriate assumptions which are not mentioned can be made wherever applicable and should be stated

## **References**

* [www.mscdirect.com](http://www.mscdirect.com)
* Provides an example of recommendations: <https://www.mscdirect.com/browse/tn/Abrasives/Quick-Change-Discs?searchterm=Quick+Change+Discs&navid=4287924411>

## **Technology**

* AWS/Associated features cannot be used. REST compliance for the recommendation service.