Capstone 1 Project Proposal

Project Title: **Product Slotting Recommendations**

Problem Statement:

With rapid growth of e-commerce industry in the recent years and the amount of expansions seen in variety of product categories for new products that are being sold on website's has been on rise - to boost the sales and the revenue for the company. The scope of selling new products within new lines of categories overall improves the diversity of the products being sold. The first step to undertake with the addition of new products before publishing them on to website is to have them slotted to appropriate product categories.

In order for the business personnel or the Web Specialist(WS) - who is usually tasked to slot new products to appropriate categories by manually choosing the category from an enormous hierarchical category data, with some form of GUI, involves each WS to be trained on a variety of categories where a particular product can be slotted to. With hundreds of products in place, this can be a tedious process to have repetitive steps for each product slotting. Instead, if we can provide top three or top five recommended product categories based on analysis & predictions with previous data and based on features or specifications of the product which is to be slotted, then it would save tons of time and overall accuracy of product slotting can be increased to a greater extent.

Potential Clients:

- Any Retail/ E-Commerce Industry
- Amazon, BestBuy, Etsy and many more

Data:

Kaggle Dataset

Some of the predictors that can be considered to provide category recommendations include:

- Product Brand
- Product Name
- Product Description
- Product Specifications

Response Variable/ Label/ Y- Variable/ Output Variable : Product Categories

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Deliverables:

- Prediction model
- Report
- Visualization