

# Project Documentation: SSENSE Catalogue Insights

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## 1 Project Purpose

This Shiny App is designed to provide interactive, insightful analysis and visualization of fashion retail data for users interested in market trends, pricing strategies, and gender/garment assignment within the fashion industry. The primary goals include enabling users to explore different aspects of fashion data easily, identify trends, and make informed decisions based on data-driven insights.

### 1.1 Audience

The intended audience for this Shiny App comprises retail managers, fashion marketers, data analysts, and fashion enthusiasts. These users seek to understand current market trends, compare brands and prices, and explore e-retailer catalogue and curation preferences in the fashion industry.

### 1.2 Goals

The main objectives of this project are to:

1. Offer an interactive and user-friendly interface for exploring fashion retail data.
2. Enable comparison between different fashion brands and categories.
3. Highlight pricing trends and analyze market segmentation between menswear and womenswear.

## 2 Data Description

The dataset used in this project was sourced from Kaggle, consisting of variables including brand names, product descriptions, pricing information, and product types (menswear or womenswear). This data was initially collected through

a python program which scraped items from SSENSE, representing a diverse range of products available in the market.

### 3 Questions and Insights

The app aims to answer questions such as:

1. What are the prevailing price ranges across different fashion brands?
2. Which fashion brands are most popular based on product listings?
3. How does the product distribution vary between menswear and womenswear?

From analyzing the data, insights gained include:

1. Certain brands dominate the market in terms of the number of listings.
2. There is a significant price disparity between menswear and womenswear in certain categories.
3. Popular colors, materials, and styles can be identified for different market segments.

### 4 Reproducibility

The analysis and results presented in this Shiny App can be reproduced through:

Accessing the raw data from Kaggle. Following the R script used for data cleaning, which includes removing NA values, standardizing brand names, and parsing product descriptions. Utilizing the code pipeline provided for data transformation and visualization.

### 5 Design Decisions

According to Tamara Munzner's what-why-how framework:

- What: The application visualizes categorical (brand, type) and quantitative (price) data.
- Why: The visualization aims to summarize, compare, and discover patterns in the fashion retail domain.
- How: The design employs bar charts for brand popularity, histograms for price distribution, and a word cloud for frequent terms in product descriptions, enabling intuitive understanding and exploration.

## 6 Wish List

Future improvements could include:

- Incorporating user reviews and ratings to provide deeper insights into customer satisfaction and preferences.
- Enhancing the user interface for a more engaging and intuitive experience.
- Integrating time-series data to analyze trends over time.

## 7 References

- Beeley, C., & Sukhdeve, S. R. (2018). Web application development with R using shiny. Packt Publishing.
- Dooley, J. J. F. K. (2024). Software development, design and coding: With patterns, debugging, unit testing, and refactoring. APRESS.
- Mailund, T. (2017). Beginning data science in R data analysis, visualization, and modelling for the Data scientist. Apress.
- Munzner, T., & Maguire, E. (2015). Visualization Analysis & Design. CRC Press, Taylor & Francis Group, CRC Press is an imprint of the Taylor & Francis Group, an information business.

## 8 Appendix

Time Distribution by Task Type

