

Project Proposal

CS6502 - Applied Big Data and Visualization

Project Title:

Market Trends and Analysis for Brewery Operations

Project Objectives:

- **Data Collection:** Gather comprehensive datasets in Bangaluru region wise for brewery operations including production, quality check, sales, losses and brewhouse efficiency.
- **Data Processing and Analysis:** Process and analyze the collected data to identify patterns, Fermentation time varies between different beer styles, how quality can impact sales and measure efficiency of brewery by calculating production losses.
- **Data Visualization:** Develop dynamic data visualizations that map brewery process to identify the factors impacting quality of beer and brewing efficiency, sales trends, seasonal variation.
- **Data Optimization:** Use the analyzed data to propose optimization to improvise sales, reducing production cost and losses. Improve quality of beer with better operations.
- **Interactive Dashboard Development:** Create an interactive dashboard that allows stakeholders to explore data, visualize brewing process dynamics, and simulate the impact of proposed optimization strategies.

Dataset link:

<https://www.kaggle.com/datasets/ankurnapa/brewery-operations-and-market-analysis-dataset>

Team Members Group 7:

1. **Shreyasi Pallav Kendurkar (23224304):** Business Analytics - (Data Wrangler and Brewing Optimization Dashboard)
2. **Aditi Suresh Misra (23163321):** Business Analytics - (Market Insights Analyst and Market Insights Dashboard)
3. **Mridul Mohan (23221933):** Business Analytics - (Efficiency Analyst and Executive Dashboard)
4. **Noel Paul (23189649):** Data Science - (Hadoop Analyst and Distributed Analytics Expert)
5. **Khurram Irshad (23081651):** Software Engineering - (Hadoop Architect, Data Pipeline Engineer and Results Interpreter)