Startup Investment Analysis Using Shark Tank Data

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1. Introduction

The Startup Investment Analysis project aims to uncover key trends in the startup ecosystem by analyzing real-world data from Shark Tank India and Shark Tank US. This analysis helps understand investor preferences, industry funding patterns, and founder demographics, providing valuable insights for aspiring entrepreneurs and investors.

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2. Abstract

This project focuses on analyzing structured startup funding data using Python and visualizing the results via Tableau. The dataset includes variables such as startup domain, founder gender, funding stage, investment amount, and investor details. Through data wrangling and exploratory analysis, we generate insightful patterns including industry-wise funding trends, gender-based investment insights, and funding success across stages. The results are compiled into interactive dashboards and visual summaries.

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3. Tools Used

- **Python** – Data Cleaning & Analysis (pandas, matplotlib, seaborn)
- **Excel** – Initial inspection and export for Tableau
- **Tableau** – Visual dashboards (industry trends, investor preferences)
- **Jupyter Notebook / Google Colab** – Code execution

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4. Steps Involved in Building the Project

1. **Data Collection**
   A Shark Tank startup dataset was prepared with attributes like industry, funding stage, founder profile, amount raised, and investors.
2. **Data Preprocessing**
   - Loaded the CSV using `pandas`
   - Renamed inconsistent column headers
   - Converted investment amounts to numeric values
   - Handled missing values and parsed investor lists
3. **Exploratory Data Analysis (EDA)**
   - Total funding per industry visualized using bar charts
   - Distribution of funding stages using count plots
   - Gender-wise funding analysis to identify diversity patterns
   - Identified frequently appearing investors and preferred industries

4. **Visualization in Tableau**
   - o Created dashboards with filters for investor name, funding stage, and industry
   - o Showcased top-funded domains and founder gender distribution

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5. Conclusion

The analysis revealed that HealthTech and EdTech are among the most funded industries, with Seed and Series A being the most common stages. Male founders received more funding overall, but female-led startups performed strongly in wellness and sustainability sectors. The visualization dashboard provides an intuitive view of startup trends and investor behaviors, making it a useful tool for ecosystem stakeholders.