Expense Forecasting Test Run 2

This project involves forecasting monthly expenses for a business over the next 6 months using AI-assisted Linear Regression models. It also includes a scenario simulation where expenses increase by 8% starting from Month 4 of the forecasted period.

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## 📊 What This Project Includes:

- \*\*Historical expense data for 12 months\*\*

- \*\*Linear Regression model\*\* to forecast expenses for Month 13 to 18

- \*\*Scenario simulation\*\* with an 8% increase in expenses from Month 16 onward

- \*\*Clean, client-friendly graph\*\* visualizing Actual, Predicted, and Scenario expenses

- \*\*Summary report PDF\*\* with key findings and recommendations

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## 🛠️ Tools Used:

- Python

- Jupyter Notebook

- Pandas

- Matplotlib

- Scikit-learn

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## 📈 Key Insights:

- Consistent upward trend in monthly expenses over 12 months

- Forecast predicts continued increase in the next 6 months

- Scenario simulation highlights financial impact of an 8% increase in expenses

- Helps businesses plan cash flow and revise operational budgets

## 📑 Deliverables:

- Jupyter Notebook file

- PNG graph image

- PDF summary report

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