

A background image showing four business professionals in a meeting. A man in a dark sweater is leaning over a table, looking at documents. A man in a light blue shirt is seated on the left, also looking at the documents. A woman with dark hair is seated in the center, looking towards the man in the sweater. A woman with curly hair is seated on the right, holding a green pen. The table has papers, a laptop, and glasses of water. The image has a dark blue overlay.

Health Check of Companies Based on Financial Ratios

Investor Opportunity

THE TEAM



Tirth Shah
Quant Researcher



Siddhesh Mishra
Financial Analyst



Sharjeel Nawaz
Head Consultant



OUR BIG IDEA

Develop a model that can be trained using financial attributes of a company. Fetch the financial data of a new company from the internet and predict if the company is operating with a high risk of Bankruptcy.

OUR DATASET

6819	96	Source
<i>Number of Instances</i>	<i>Variable Attributes</i>	<i>Kaggle Datasets Yahoo Finance</i>

Business Objectives

Questions:

1. Identifying Early Warning Signs:
2. Assessing the Impact of Profitability:
3. Evaluating Industry-Specific Factors:
4. Determining the Significance of Leverage:
5. Temporal Analysis:
6. Risk Stratification:

Benefits and Use Cases:

1. Risk Assessment:
2. Portfolio Management:
3. Early Warning System:
4. Regulatory Compliance
5. Industry Analysis:

Concepts and Definitions

1. **Current Ratio:** A liquidity ratio that measures a company's ability to pay its short-term obligations.
2. **Quick Ratio:** A more conservative liquidity ratio that excludes inventories from current assets.
3. **Gross Margins:** A profitability ratio that measures the percentage of revenue left after deducting the cost of goods sold.
4. **Net Income:** The bottom-line profitability metric that represents a company's total earnings or losses.
5. **Leverage Ratio:** A solvency ratio that measures the extent to which a company relies on debt financing.

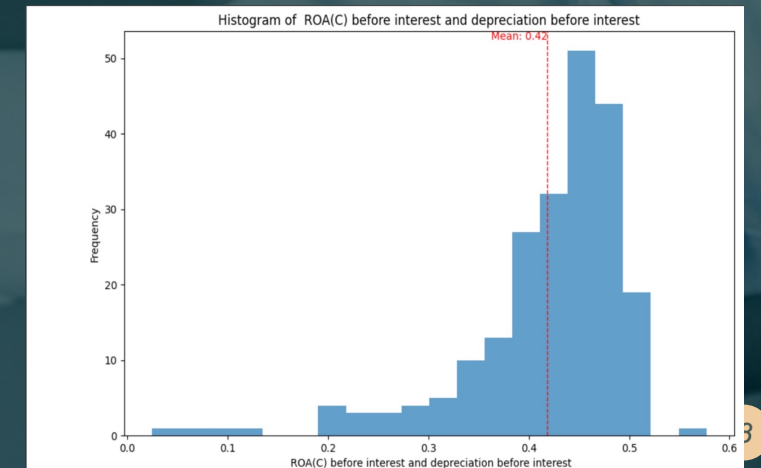
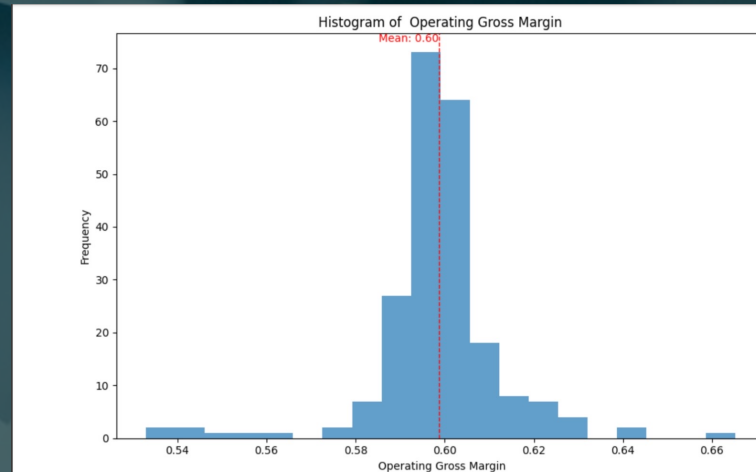
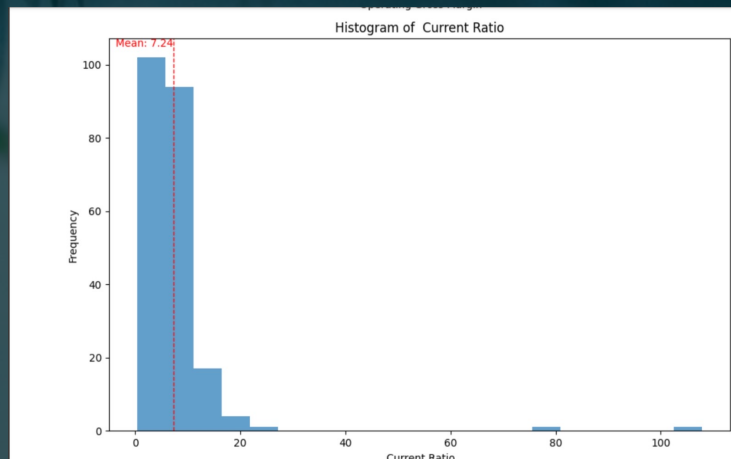
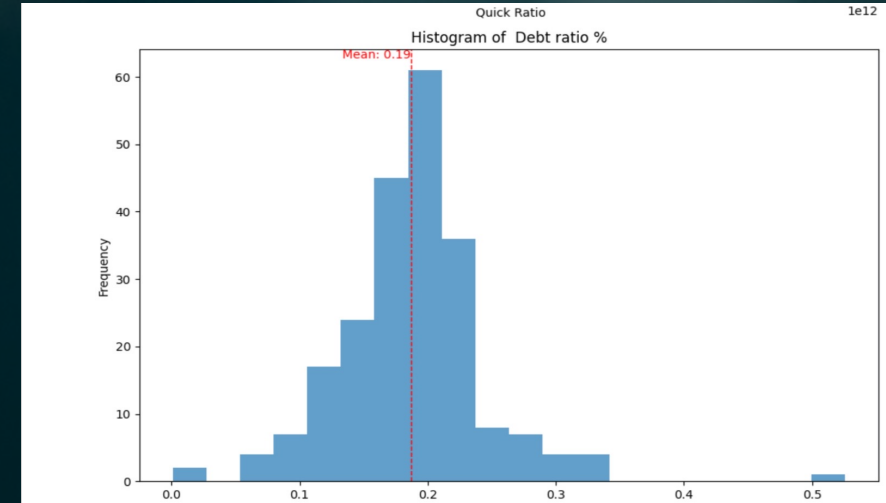
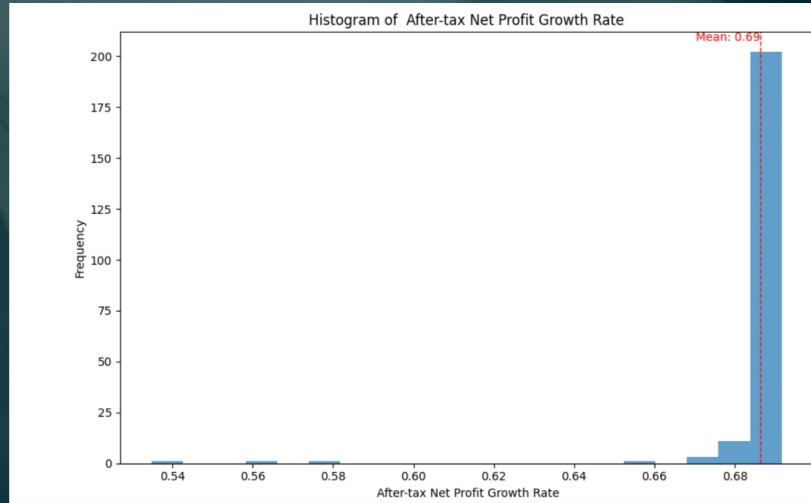
Data Insights

ROA(C) before interest and depreciation before interest	Operating Gross Margin	Current Ratio	Quick Ratio	Debt ratio %	After-tax Net Profit Growth Rate
-0.488658375900878	-0.18684647392861325	-0.20508218803858105	0.06091831975169926	0.48383528662533765	-0.09552805028990016

Correlation Matrix

The correlation coefficient between "Bankrupt?" and "ROA(C) before interest and depreciation before interest" is approximately -0.4887. This suggests a moderate negative correlation, indicating that as "ROA(C) before interest and depreciation before interest" decreases, the likelihood of the company going bankrupt increases, and vice versa.

Data Insights



Use Case

1) Entering a Company Ticker Symbol

```
▶ ticker = input ('Please enter your ticker name : ')
```

```
➞ Please enter your ticker name : MSFT
```

2) Fetching the company data from Yahoo Finance

Company	ROA(C) before interest and depreciation before interest	Operating Gross Margin	Current Ratio	Quick Ratio	After-tax Net Profit Growth Rate	Debt ratio %
Microsoft Corpora...	0.1519	0.69815004	1.218	1.096	46.736	0.332

3) Passing the company data into the model and evaluating results for bankruptcy.

```
+-----+-----+
| Company                | prediction |
+-----+-----+
| Microsoft Corporation | 0.0        |
+-----+-----+
```

Results

Company	prediction
Hewlett Packard Enterprise Comp	0.0

Company	prediction
Apple Inc.	0.0

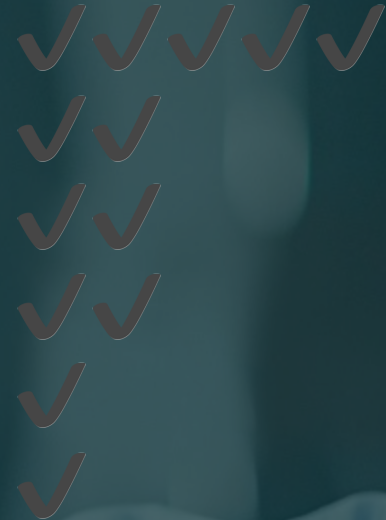
Company	prediction
NVIDIA Corporation	0.0

Company	prediction
Advanced Micro Devices, Inc.	1.0

Company	prediction
Garmin Ltd.	1.0

Conclusion

1. Identifying Early Warning Signs:
2. Assessing the Impact of Profitability:
3. Evaluating Industry-Specific Factors:
4. Determining the Significance of Leverage:
5. Temporal Analysis:
6. Risk Stratification:



A photograph of two people shaking hands in a business setting, overlaid with a semi-transparent blue filter. The hands are clasped in the center of the frame. The person on the left is wearing a dark suit jacket, and the person on the right is wearing a light blue dress shirt. The background is blurred, showing office furniture and a plant.

THANK YOU