Mawlana Bhashani Science and Technology University,

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Project

Department: ***Accounting***

Project No: ***01***

Project on: ***Financial Statement's Ratio Analyzer***

Course Tittle: ***Basic Programming with Python***

Submitted by	***Submitted to***
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Financial Statement's Ratio Analyzer

Introduction:

I have tried to prepare a Python project on a very important section of accounting that is Financial Statement's Ratio Analysis and the name of my project is Financial Statement's Ratio Analyzer. With the help of my Python project, we can find out different financial ratios as output by providing various financial statement data as input, which will help the users to make a number of financial decisions in the Business organizations based on the output provided by using the code of my Python project.

Python Project Code:

```
def calculate_ratios(current_assets, current_liabilities, inventories, total_liabilities, total_equity, net_income,
                     gross_profit, revenue):
    current_ratio = current_assets / current_liabilities if current_liabilities else None
    quick_ratio = (current_assets - inventories) / current_liabilities if current_liabilities else None
    debt_to_equity_ratio = total_liabilities / total_equity if total_equity else None
    roe = net_income / total_equity if total_equity else None
    gross_profit_margin = (gross_profit / revenue) * 100 if revenue else None

    return {
        "Current Ratio": current_ratio,
        "Quick Ratio": quick_ratio,
        "Debt-to-Equity Ratio": debt_to_equity_ratio,
        "Return on Equity (ROE)": roe,
        "Gross Profit Margin (%)": gross_profit_margin,
    }


def main():
    print("Welcome to the Financial Ratio Analyzer!")
    current_assets = float(input("Enter Current Assets: "))
    current_liabilities = float(input("Enter Current Liabilities: "))
```

```
    inventories = float(input("Enter Inventories: "))
    total_liabilities = float(input("Enter Total Liabilities: "))
    total_equity = float(input("Enter Total Equity: "))
    net_income = float(input("Enter Net Income: "))
    gross_profit = float(input("Enter Gross Profit: "))
    revenue = float(input("Enter Revenue: "))

    ratios = calculate_ratios(current_assets, current_liabilities, inventories, total_liabilities,
total_equity,
                              net_income, gross_profit, revenue)

    print("\nCalculated Financial Ratios:")
    for ratio, value in ratios.items():
        print(f"{ratio}: {value:.2f}" if value is not None else f"{ratio}: N/A")


if __name__ == "__main__":
    main()
```

Input:

```
C:\Users\User\PycharmProjects\pythonProject16\.venv\Scripts\python.exe "C:\Users\User\PycharmProjects\pythonProject16\Project on acc.py"
Welcome to the Financial Ratio Analyzer!
Enter Current Assets: 10000
Enter Current Liabilities: 7000
Enter Inventories: 2000
Enter Total Liabilities: 20000
Enter Total Equity: 12000
Enter Net Income: 8000
Enter Gross Profit: 17000
Enter Revenue: 30000
```

Output:

```
Calculated Financial Ratios:
Current Ratio: 1.43
Quick Ratio: 1.14
Debt-to-Equity Ratio: 1.67
Return on Equity (ROE): 0.67
Gross Profit Margin (%): 56.67
```