**Project Report: Financial Ratio & Statement Analysis**

**📝 Objective**

The project analyzes the **financial performance** of selected companies (Apple, Microsoft, Google) using their **income statements** and **key ratios**.  
The goal is to understand **profitability, solvency, liquidity, and efficiency** over time.

**🔹 Dataset**

* **Companies:** Apple, Microsoft, Google
* **Years Covered:** 2020 – 2023
* **Tables Used:**
  + companies (company\_name, industry)
  + income\_statements (company\_name, year, revenue, net\_income)
  + ratios (company\_name, year, roe, roa, net\_profit\_margin, debt\_equity\_ratio, current\_ratio)

**🔹 Key Findings**

**1. Revenue & Net Income Trend**

* Apple’s revenue grew from **$274B (2020) → $383B (2023)**.
* Microsoft’s revenue increased from **$143B (2020) → $212B (2023)**.
* Google’s revenue grew from **$183B (2020) → $282B (2023)**.  
  👉 All three firms show **steady revenue growth**.

**2. Profitability (ROE & Net Profit Margin)**

* In 2023:
  + **Apple:** ROE = **147%**, Net Profit Margin = **25%**
  + **Microsoft:** ROE = **41%**, Net Profit Margin = **33%**
  + **Google:** ROE = **27%**, Net Profit Margin = **21%**  
    👉 Microsoft has the **highest margin**, Apple shows **exceptionally high ROE**.

**3. Return on Assets (ROA)**

* 2023:
  + Apple: **28%**
  + Microsoft: **19%**
  + Google: **14%**  
    👉 Apple uses its assets **most efficiently**.

**4. Debt-to-Equity Ratio**

* Apple: **1.6**
* Microsoft: **0.55**
* Google: **0.10**  
  👉 Apple is **more leveraged**, while Google is **almost debt-free**.

**5. Liquidity (Current Ratio)**

* Apple: **0.88**
* Microsoft: **1.9**
* Google: **2.5**  
  👉 Google and Microsoft have **strong liquidity**; Apple is slightly below 1, meaning it relies more on short-term financing.

**🔹 Insights**

* **Apple**: Strong growth, very high ROE, but relies on debt.
* **Microsoft**: Most profitable (highest margins), balanced financial structure.
* **Google**: Conservative (low debt), best liquidity, but lower profitability compared to peers.

**📌 Conclusion**

This analysis shows that:

* All three firms are financially strong.
* Microsoft leads in **profit margins**, Apple leads in **ROE/ROA**, Google leads in **liquidity and low risk**.
* A balanced portfolio might include all three, depending on whether an investor prefers **growth (Apple)**, **profitability (Microsoft)**, or **safety (Google)**.