📄 Executive Summary

Sign-Up Flow Optimization Analysis with SQL & Tableau

🎯 Objective

To identify friction points within the **365 Company** registration process, quantify their impact on user conversion, and recommend actionable, data-driven optimizations to enhance **visitor-to-free-user sign-up rates** and overall platform performance.

🧩 Approach

Leveraging **SQL** and **Tableau**, the analysis followed a structured framework:

1. **Data Extraction & Cleaning** – Queried web event logs capturing sign-up attempts, successes, and errors by device, OS, and method.

2. **Descriptive & Diagnostic Analysis** – Measured fail rates, retries, and behavioral patterns across platforms.

3. **Visualization & Storytelling** – Built interactive Tableau dashboards highlighting conversion bottlenecks and UX pain points.

4. **Hypothesis Testing (A/B Framework)** – Designed experiments to validate the effect of promoting social sign-up options on conversion lift.

5. **Opportunity Sizing & Business Impact Estimation** – Modeled potential gains in users and revenue under optimized scenarios.

📊 Key Findings

- **Device Performance:**
    - Desktop sign-up fail rate — **1.16%**
    - Mobile sign-up fail rate — **3.24%** → *mobile users are 3× more likely to fail.*
- **Sign-Up Methods:**
    - **Google:** 91% success rate *(most reliable)*
    - **LinkedIn:** 87% success rate

- o **Facebook:** 69% success rate *(349 "unknown" errors detected)*

- o **Email:** 65% success rate; **25% login failure rate post-registration*.

- **Root Cause Highlights:**

  - o **85% of email input errors** occurred on mobile due to form design and password complexity.

  - o **778 users** closed the Google pop-up prematurely — external behavior impacting flow.

  - o **Android OS** showed the highest number of both failures (2,309) and successful retries (4,077).

💡 **Actionable Insights & Recommendations**

1. **Promote social sign-ups (Google & LinkedIn)** more prominently to reduce friction.

2. **Simplify email registration UX**, especially on mobile — optimize form fields, relax password rules, add inline validation.

3. **Investigate Facebook "unknown" errors** and Google OAuth pop-up closures.

4. **Implement A/B testing** to validate improvements; monitor conversion, error rate, and satisfaction KPIs.

📈 **Quantified Impact**

- Projected **10% uplift** in visitor-to-free conversion rate (3.2% → 3.52%).

- Estimated **+3,587 new free users** in the analyzed period.

- For every **10,000 visitors**, ~14 additional paid conversions → **+$420 revenue**.

- Scaled across total visitor volume, these enhancements represent **significant recurring revenue potential** and sustained user growth.

🧠 **Business Outcome**

The study revealed that **mobile usability and email input design** are the primary barriers to registration success, while **social sign-ups drive efficiency**.
Armed with data-driven insights, the company can now prioritize **UX redesign and**

social sign-up optimization, leading to measurable improvements in both **user acquisition** and **conversion revenue**.

💼 Tools & Skills Demonstrated

SQL · Tableau · Funnel Analysis · Data Visualization · A/B Testing · Business Analytics · User Behavior Analysis · Conversion Optimization · Data Storytelling

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💬 Executive Takeaway

Streamlining the sign-up process isn't just a UX fix — it's a revenue strategy.
By combining SQL-driven diagnostics with Tableau-based storytelling, the project transformed raw user data into actionable insights that will directly improve customer conversion and retention.