Portfolio

VINCENT KARUNIA
Information Systems Student | Data & Tech Enthusiast

Get To Know Me

I’m an Information Systems student specializing in Data Analytics and Business Intelligence. My primary focus is transforming complex data into actionable insights using SQL and BI tools. I also leverage my technical background in Web Development (Laravel) and Python to build comprehensive data-driven solutions.

Let's Connect!

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Vincent Karunia

vinckarunia

EXPERIENCE

Church Member Database Management Website Development Team Member | GKI Raya Hankam 2025-present

Developing a CRM-based website for monitoring and managing congregation member data at GKI Raya Hankam.

Publication and Documentation Team Member | UKRIDA E-sports Student Creativity Unit 2024-2025

Create and design creative visual designs in the form of Instagram feeds, stories, and reels for events in accordance with the organization's work program.

EDUCATION

Krida Wacana Christian University | Faculty of Smart Technology | Information System Program 2023-present

GPA: 3.89/4.00 (5th Semester)

Tools

What I've explored so far...

DATA VISUALIZATION & ANALYSIS

Tableau
Power BI
Metabase
MS Excel

DATABASE & WEB DEVELOPMENT

MySQL
PostgreSQL
Laravel
PHP
HTML + CSS + JS
Python
Postman

WORKFLOW

Git & GitHub
Notion

OTHER TOOLS

Figma
Canva
Capcut
and many more...

Projects

What I've done so far...

- Data-Driven System Analysis
- Machine Learning
- Data Dashboard
- Web Development

About the System

blu by BCA Digital is a prominent mobile-only digital bank in Indonesia with over 2.4 million active users. It integrates traditional banking with e-wallet concepts through features like bluSaving and bluGether. However, despite its strong affiliation with BCA, user reviews indicated performance gaps that threatened user retention.

Data-Driven System Analysis

STAR Method

- **Situation:** In the competitive digital banking landscape, user retention is heavily dictated by app performance. Preliminary scraping of 10,000+ Google Play Store reviews indicated high user friction, but the root technical causes remained unquantified.
- **Task:** To perform a comprehensive analysis bridging raw user sentiment data with system architecture to identify performance bottlenecks and propose technical optimizations.

Application: blu Tools Used:

STAR Method

- **Action:** I engineered a Python scraper to extract sentiment trends and validated them through primary research (surveys of 27 respondents and structured interviews). I performed a Gap Analysis on 20 key features (F01-F20), mapping complaints like "Premature Logout" and "Slow QRIS" to the system's backend and business processes.
- **Result:** Discovered a critical gap where QRIS initialization (2.5s) exceeded the ideal threshold by 150%. I delivered a prioritized technical roadmap, including a Smart Session Extension and Lite Mode for mid-range devices, aimed at cutting transaction time from 35s to <15s.

Data-Driven System Analysis

More Details Full Document

Application: blu Tools Used:

```python
from google_play_scraper import reviews, Sort

package_name = "id.dana"

all_reviews, _ = reviews(
    package_name,
    lang='id',
    country='id',
    sort=Sort.NEWEST,
    count=10000
)

path_file = './reviews.txt'

with open(path_file, 'w', encoding='utf-8') as f:
    for r in all_reviews:
        line = f"{r['score']} ⭐ - {r['content']}\n"
        f.write(line)

print(f"Berhasil mengambil {len(all_reviews)} review.")
```

Data Scraping

Scraping review data from Google Play Store

Data-Driven System Analysis

Application: blu

Tools Used:

Data Dashboard

Congregation data visualization dashboard with Metabase integrated with CRM database.

The Problem

Church stakeholders struggled with manual Excel reports to track growing number of members

The Solution

Integrated Metabase with the live database to visualize trends instantly

Some Snapshots

Tools Used

Metabase

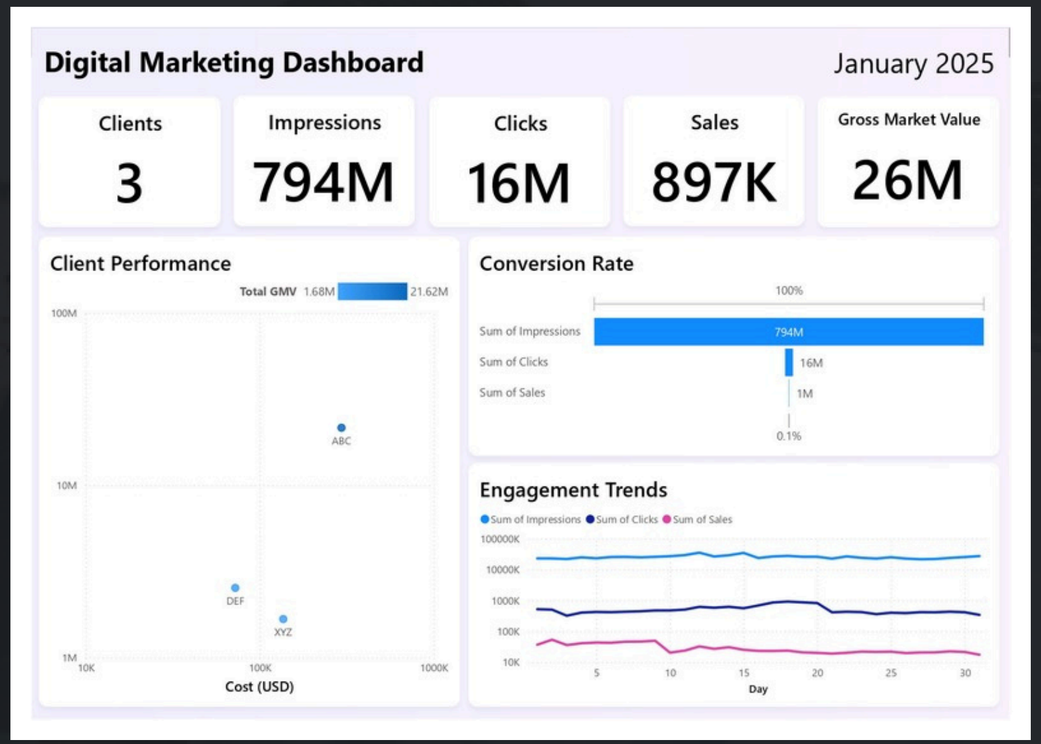
Data Dashboard

Tools Used

Developed an interactive dashboard to monitor ad spend efficiency and conversion effectiveness across multiple e-commerce advertising accounts.

STAR Method

- **Situation:** Monitoring ad spend efficiency and conversion effectiveness across multiple e-commerce accounts was difficult without a unified visualization tool.
- **Task:** To design an interactive dashboard that maps advertising efficiency and detects performance trends to optimize ROI.



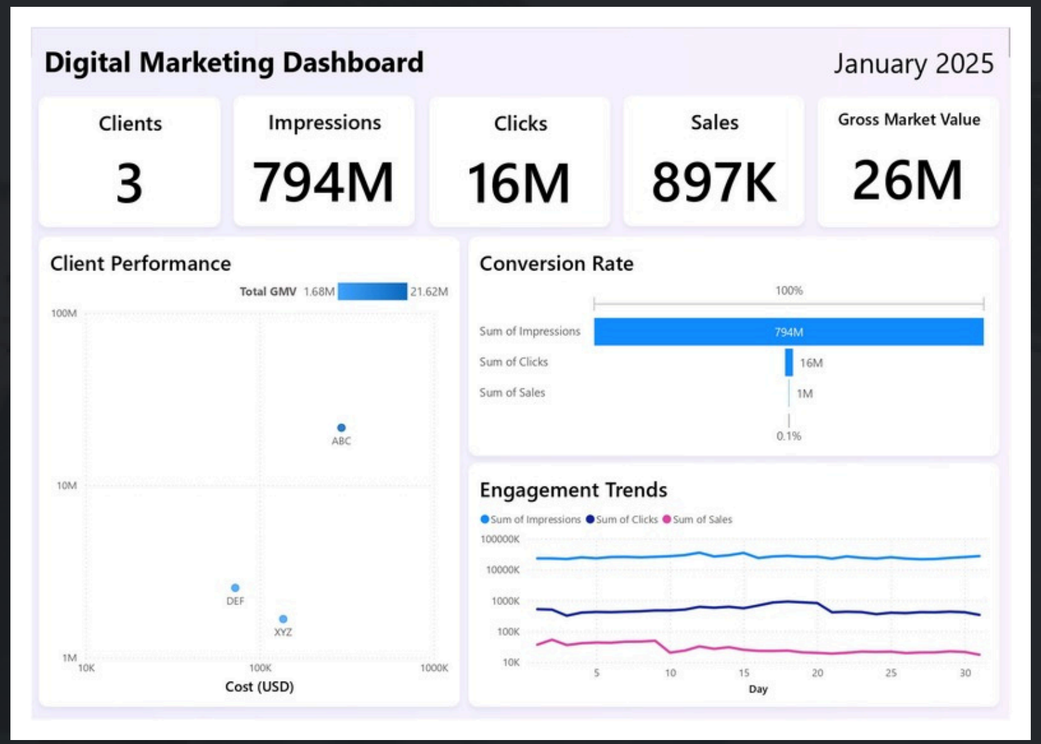
Data Dashboard

Tools Used

Developed an interactive dashboard to monitor ad spend efficiency and conversion effectiveness across multiple e-commerce advertising accounts.

STAR Method

- **Action:** Using Power BI, I engineered scatter plot visualizations to analyze the correlation between Cost and GMV for standardized ROAS monitoring. I also leveraged daily engagement line charts and end-to-end funnel analysis to identify conversion bottlenecks.
- **Result:** Provided full visibility into a total Gross Market Value (GMV) of $26M across three clients, allowing for the translation of complex datasets into actionable growth and creative strategies.



Data Dashboard

Tools Used

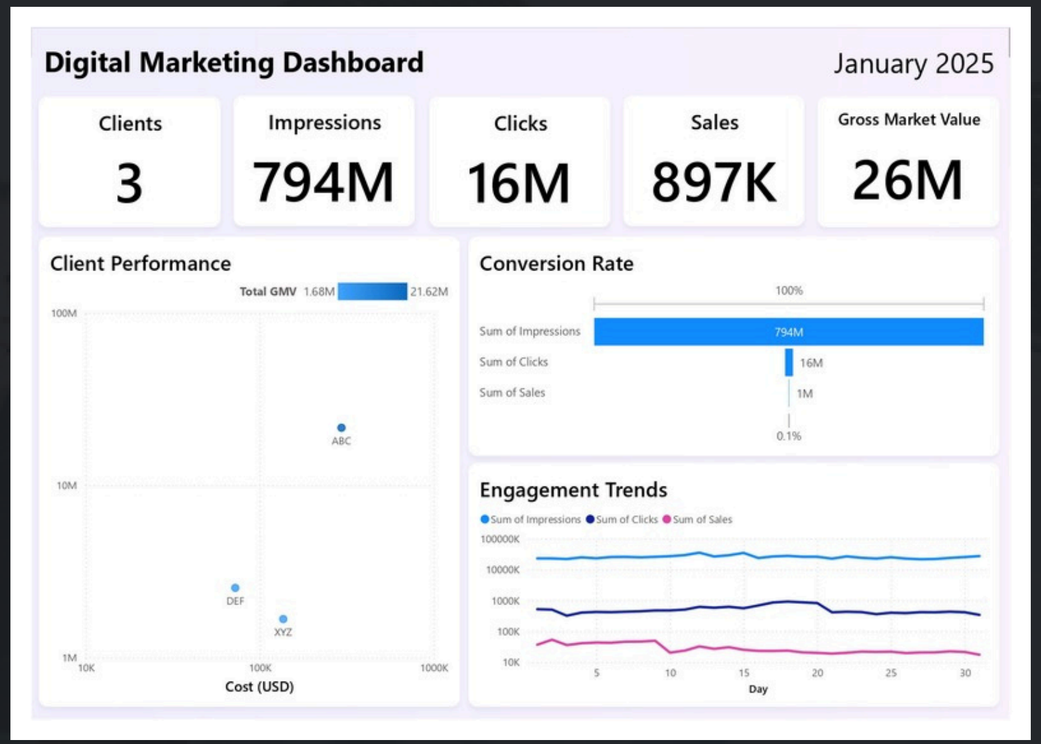
Developed an interactive dashboard to monitor ad spend efficiency and conversion effectiveness across multiple e-commerce advertising accounts.

Efficiency Mapping

Engineered scatter plot visualizations to analyze the correlation between Cost and GMV, providing a standardized view of ROAS performance.

Funnel Analysis

Visualized the end-to-end user journey to pinpoint conversion bottlenecks, identifying critical drops in Click-Through Rates (CTR) for low-performing segments.



Data Dashboard

Tools Used

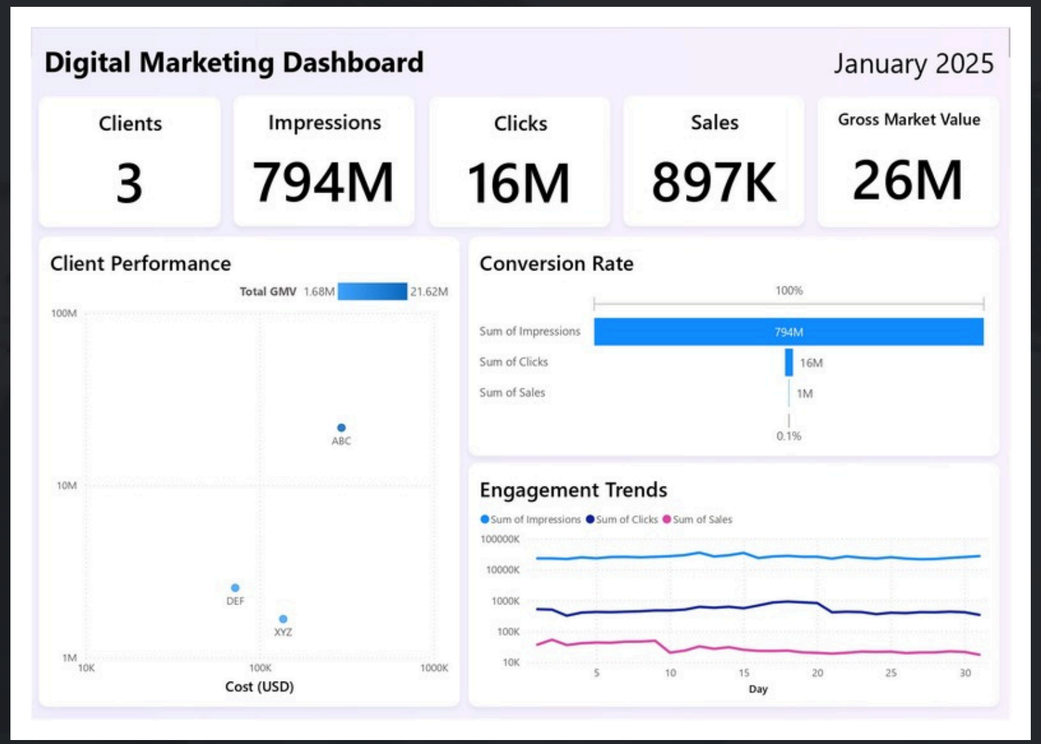
Developed an interactive dashboard to monitor ad spend efficiency and conversion effectiveness across multiple e-commerce advertising accounts.

Trend Detection

Leveraged daily engagement line charts to detect performance anomalies and seasonal fluctuations in user activity.

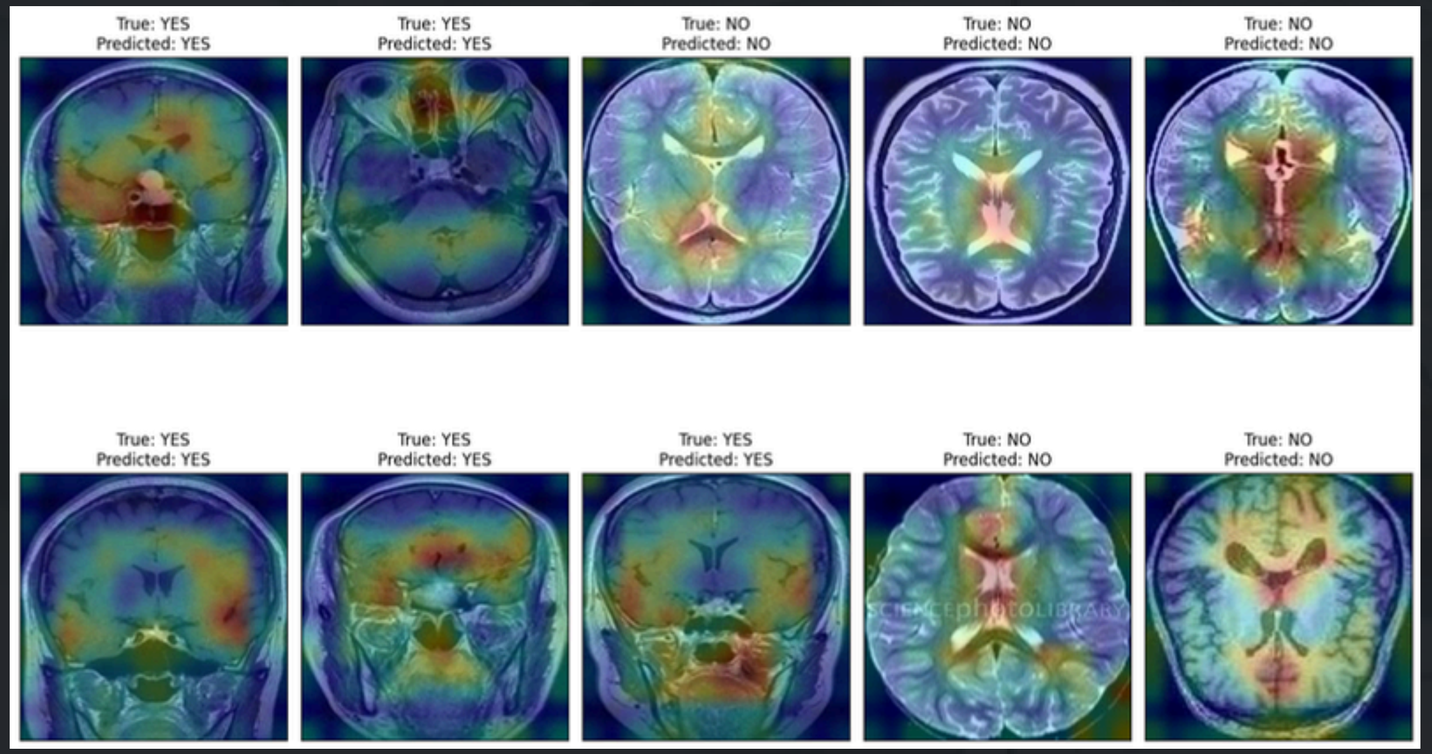
Strategic Optimization

Translated complex datasets into actionable growth strategies, focusing on creative overhauls and A/B testing to maximize advertising ROI.



Machine Learning

Utilized Google Colab's GPU acceleration to optimize training time for the VGG16 model, ensuring high-performance execution without local hardware constraints.



More Details

Dataset The Code

MRI Brain Tumor Classification

Medical image analysis using Python & VGG16 (CNN) on Google Colab to detect tumors from MRI scans with high accuracy from Kaggle datasets.

Tools Used

Python Google Colab Kaggle

GKI Raya Hankam Membership Database

A comprehensive CRM system built with PHP (ChurchCRM Based) to manage 3000+ congregation data.

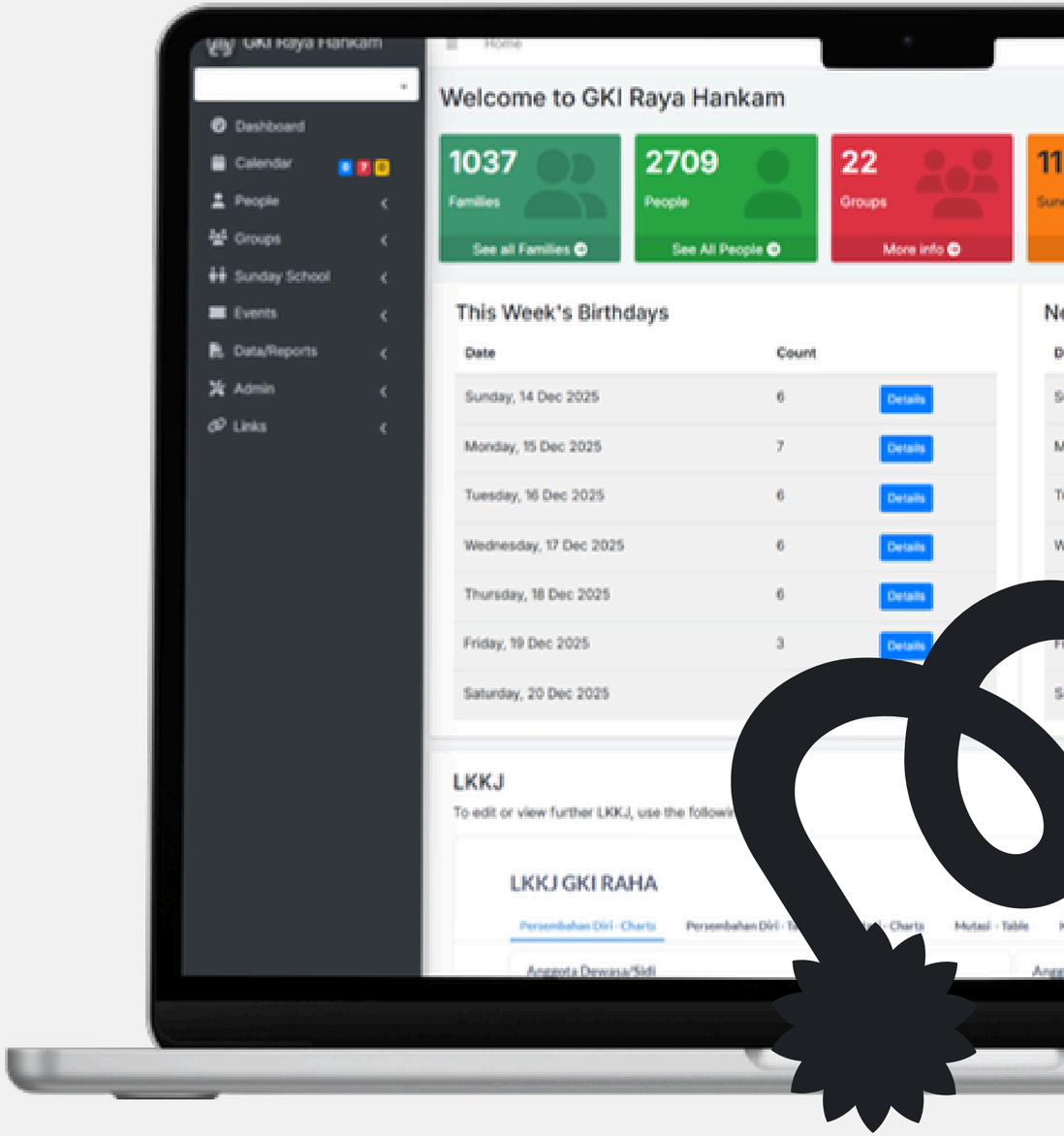
Key Features

- Centralized Data Management.
- Real-time Demographic Statistics.
- Secure Role-Based Access Control.
- QR-Based Event Check-in.

Tools Used

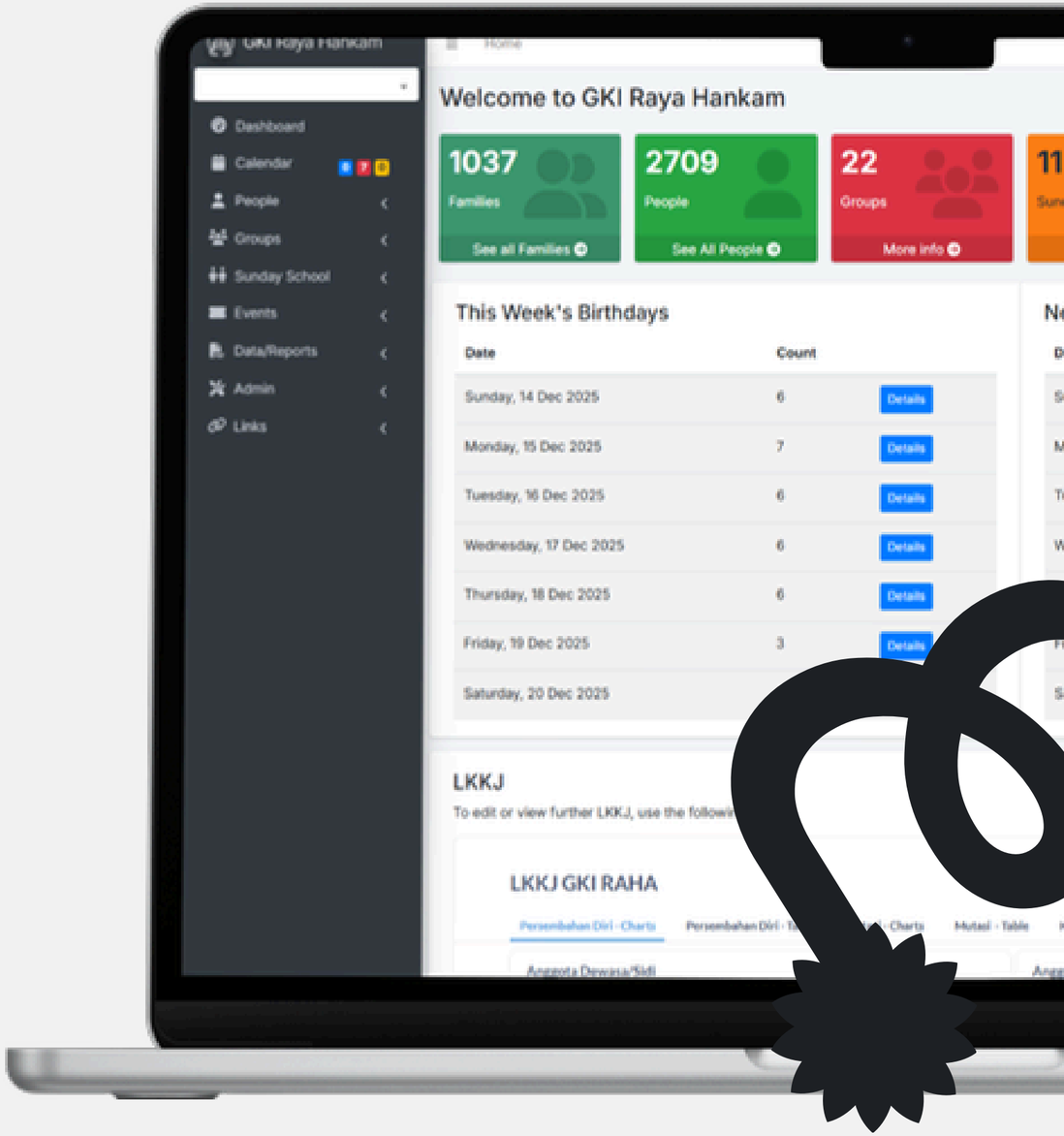
MySQL PHP

Web Development

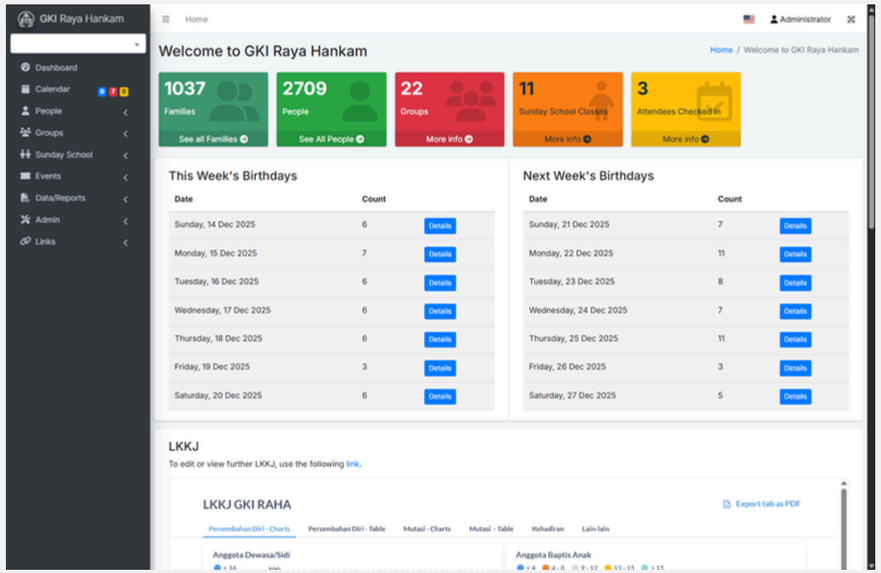


STAR Method

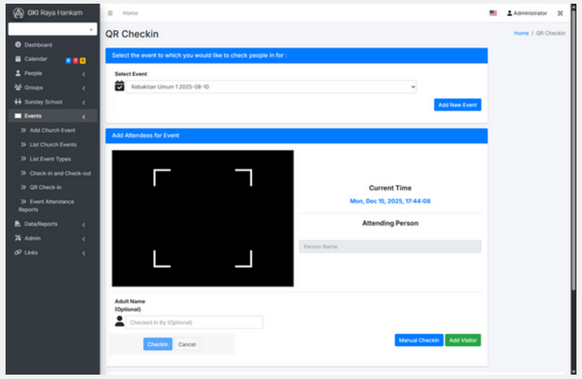
- **Situation:** The church board struggled with manual Excel-based reports to track a growing congregation of over 3,000 members, which led to data silos and delayed reporting.
- **Task:** To develop a centralized, secure CRM-based membership database system to automate reporting and provide real-time demographic monitoring.
- **Action:** I engineered a full-stack CRM system using PHP and MySQL, designed an optimized relational database schema, and implemented secure Role-Based Access Control (RBAC). Furthermore, I integrated a Metabase Dashboard to visualize trends and weekly growth instantly.
- **Result:** Successfully migrated the entire congregation database to a digital system, replacing manual workflows and enabling stakeholders to access actionable insights for periodic data monitoring immediately.



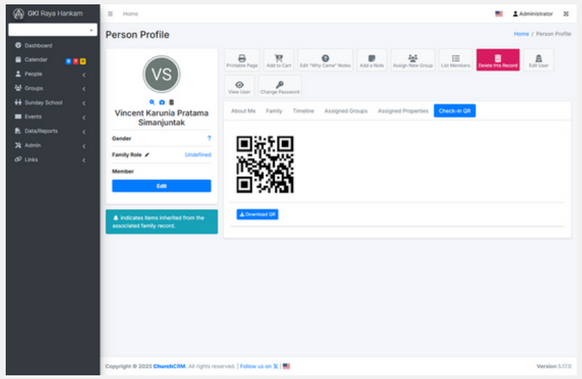
The Snapshots



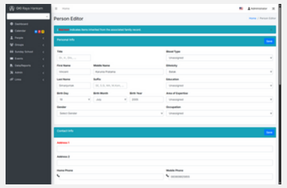
Main Dashboard

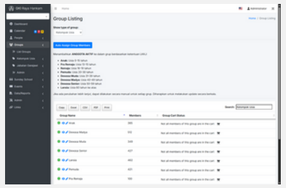


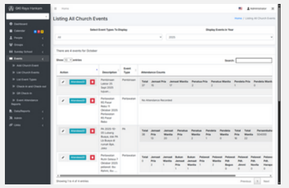
QR-Based Check-in



Person Management







and many more...

More Details [The Site] [The Code]

Web Development

Web Development

5th Apparel

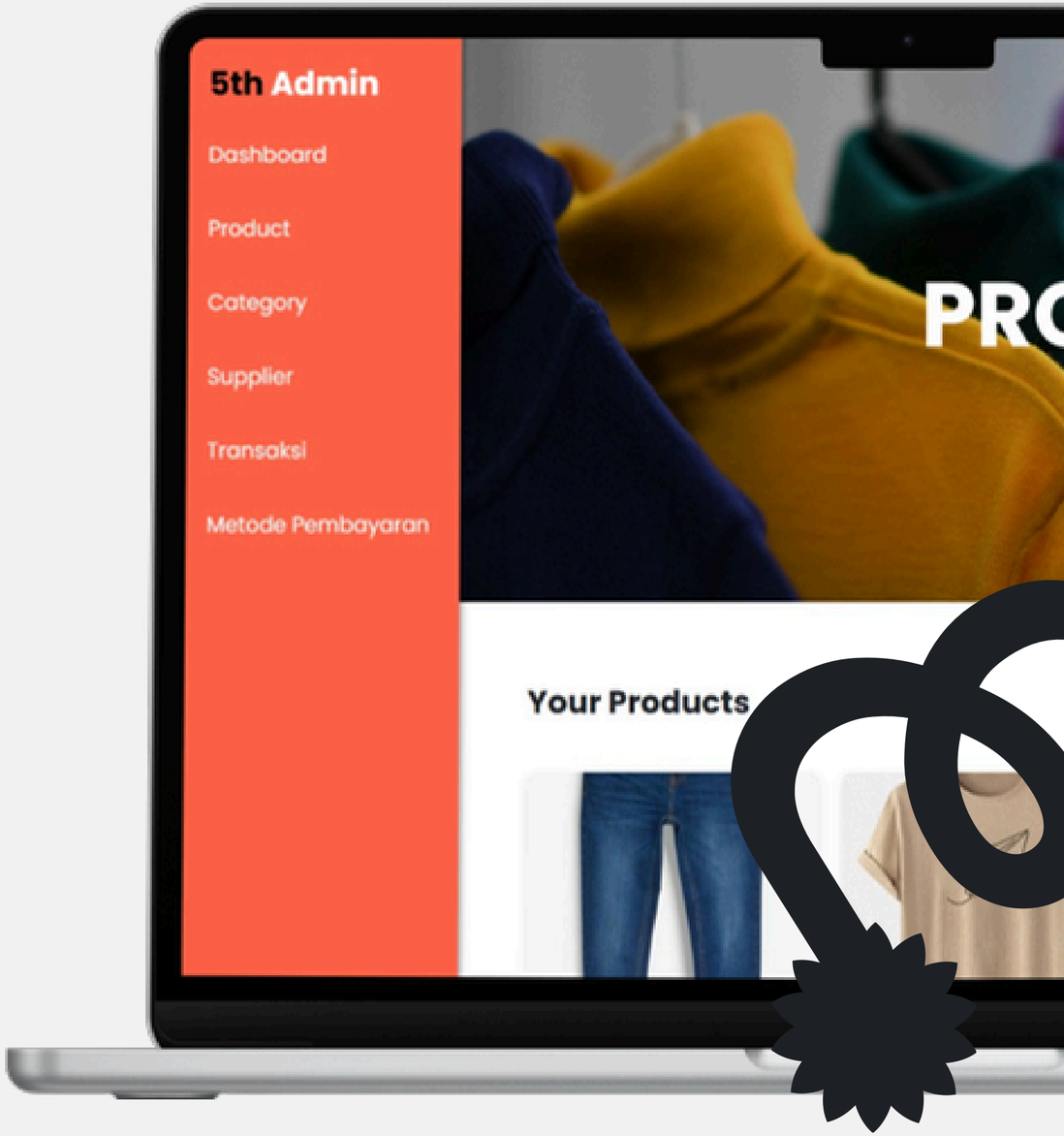
A functional web-based e-commerce platform built with Laravel, featuring a clear distinction between an Administrative dashboard for inventory management and a user-friendly interface for customers.

Role

Technical Project Lead & Backend Developer

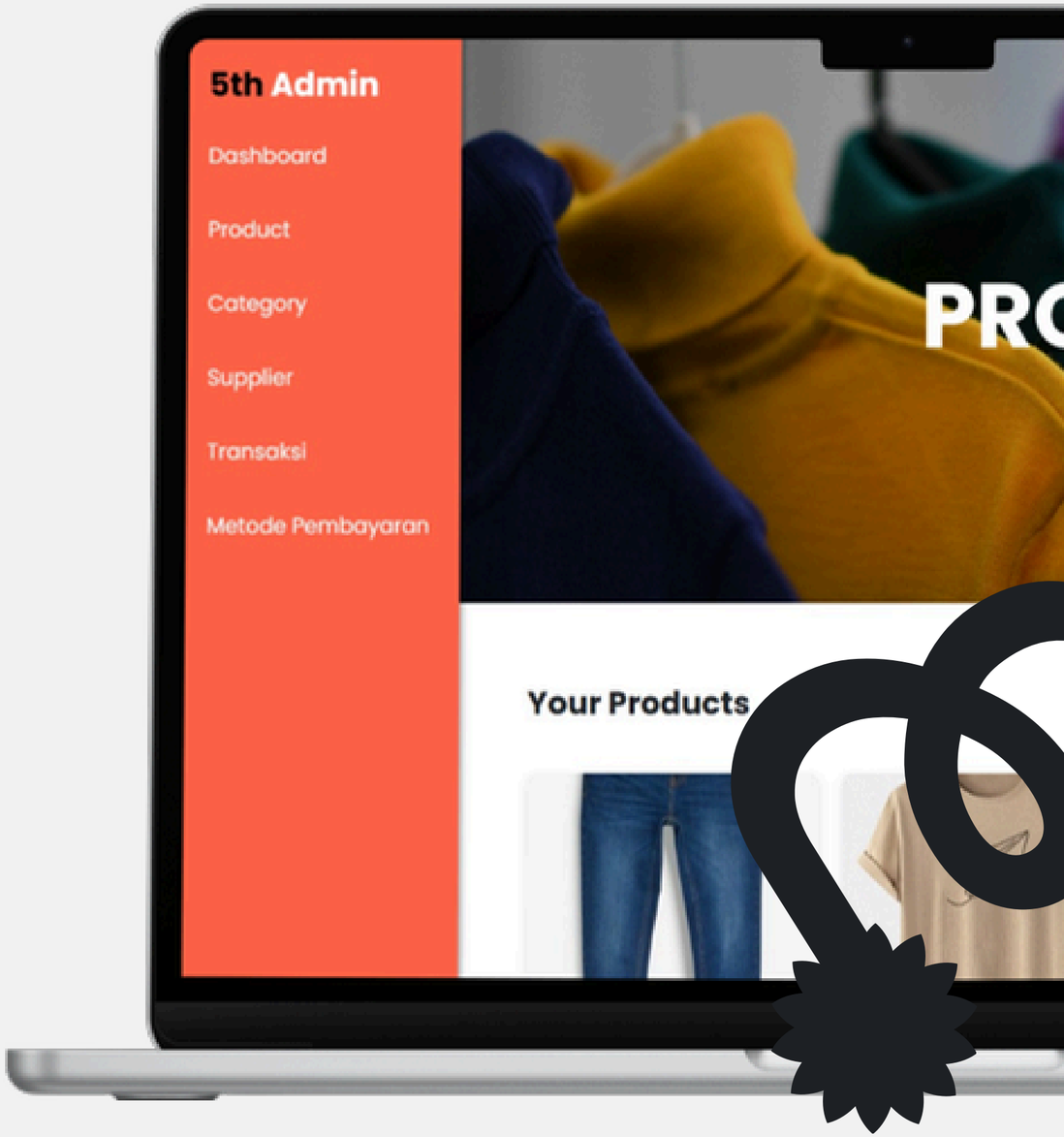
Tools Used

Laravel MySQL Postman



STAR Method

- **Situation:** As part of a team project, we were tasked with building a functional e-commerce platform with a clear distinction between administrative management and the customer interface.
- **Task:** Serving as the Technical Project Lead & Backend Developer, my goal was to design the system architecture and lead the team to ensure synchronized module delivery.
- **Action:** I developed the platform using the Laravel framework and MySQL, implementing core backend logic via MVC patterns. I engineered secure Admin CRUDs for inventory, session-based shopping carts for users, and automated transaction emails via SMTP.
- **Result:** Delivered a fully functional e-commerce solution on time, featuring optimized database queries for high performance and seamless integration between admin and user modules.



Web Development

Key Contributions

- **Team Leadership:** Directed team tasks and synchronized Admin-User modules to ensure on-time delivery.
- **Backend Architecture:** Designed relational database schemas and implemented core backend logic using Laravel MVC.
- **Key Features:** Developed a secure Admin CRUD (Product & Payment) and a session-based Shopping Cart for users.
- **Technical Optimization:** Managed authentication handling, automated transaction emails (SMTP), and optimized queries for better performance.

```php
Schema::create('products', function (Blueprint $table) {
            $table->id();
            $table->foreignId('category_product_id')->nullable()->index();
            $table->foreignId('supplier_id')->nullable()->index();
            $table->string('image');
            $table->string('title');
            $table->text('description');
            $table->decimal('price');
            $table->integer('discount')->default(0);
            $table->integer('stock')->default(0);
            $table->timestamps();
        });
```

```php
public function get_product(){
        //get all products
        $sql = $this->select("products.category_product_id",
                    "products.image",
                    "products.title",
                    "products.description",
                    "products.price",
                    "products.stock",
                    "products.discount",
                    "category_product.product_category_name as product_category_name",
                    "suppliers.nama_supplier as nama_supplier",
                    DB::raw("products.price * (1 - (products.discount / 100)) as final_price"))
                ->join('category_product', 'category_product.id', '=', 'products.category_product_id')
                ->join('suppliers', 'suppliers.id', '=', 'products.supplier_id');

        return $sql;
    }
```

This is not the end...

Ready to contribute as a Data Analyst/BI Intern/Web Developer

Let's Connect!

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Web Version of This Portfolio