



PORTOFOLIO

By Dillan Engelbert Hendrarto



PORTFOLIO



1

Ecommerce
DataAnalysis

[github](#)

4

Smart Kos

[github](#)

2

Photo to Painting

[github](#)

5

Batman simulator

[github](#)

3

PersonaProfiler

[github](#)

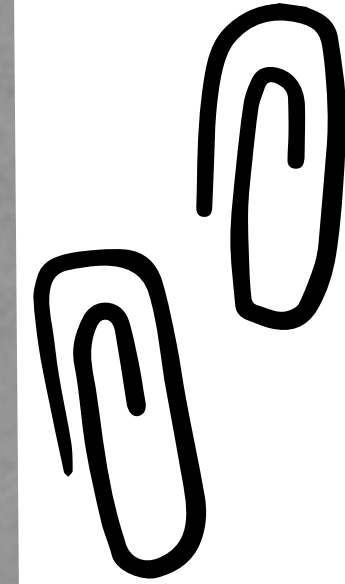
6

University Room Booking

[github](#)

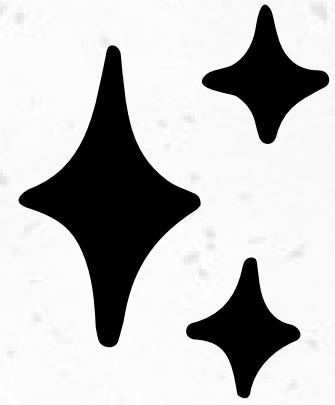


INSIGHTHUB: ECOMMERCE DATA ANALYSIS



InsightHub is an interactive dashboard designed to help e-commerce businesses analyze customer data, sales trends, and payment patterns. The project enables businesses to make data-driven decisions through informative visualizations.





TECHNOLOGY



PYTHON

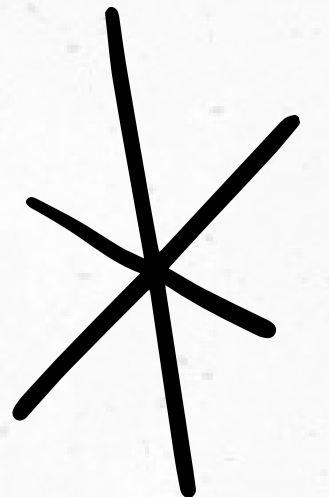
Processed and analyzed datasets from e-commerce platforms.

STREAMLIT

Backend to handle image processing and manage API endpoints.

ALTAIR, PLOTLY, MATPLOTLIB

Visualized data to provide clear and actionable insights.





IMPACT

InsightHub empowers businesses with actionable insights by uncovering patterns in customer behavior, payment preferences, and sales performance. This tool enhances decision-making processes, driving improved marketing strategies and operational efficiency in e-commerce.

LEARNING OUTCOMES

I honed my skills in data processing and visualization by utilizing Python and libraries like Altair, Plotly, and Matplotlib. Building the dashboard in Streamlit also enhanced my ability to create interactive and user-friendly applications tailored to solving real-world business problems.

<

Filter Data berdasarkan Tanggal

Start Date

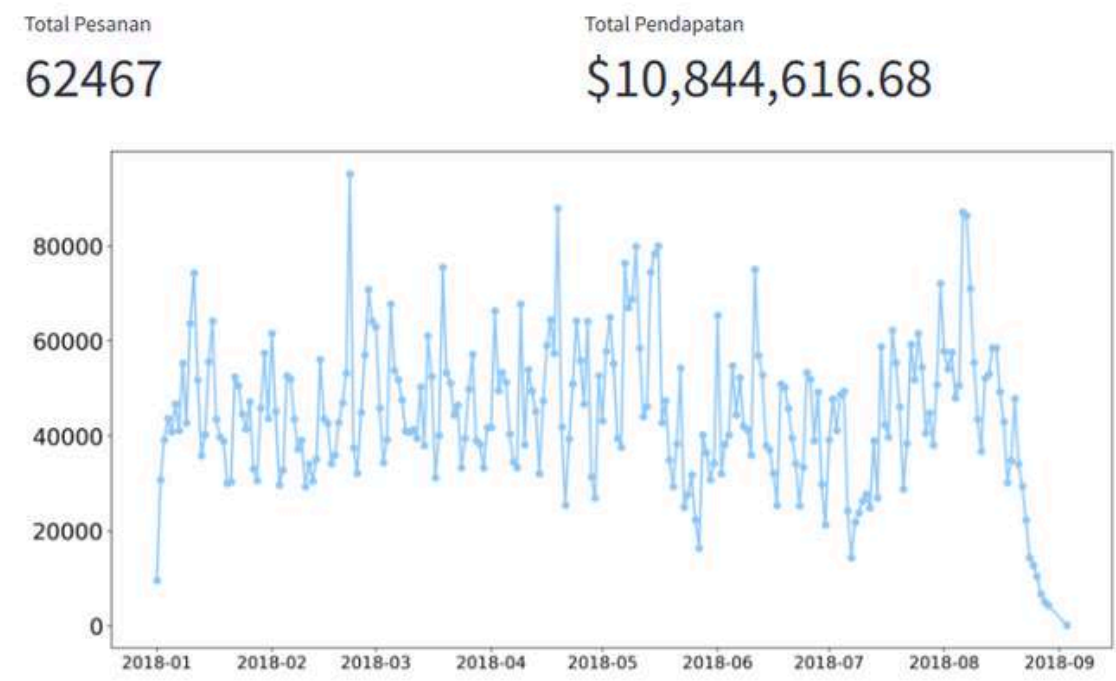
2018/01/01

End Date

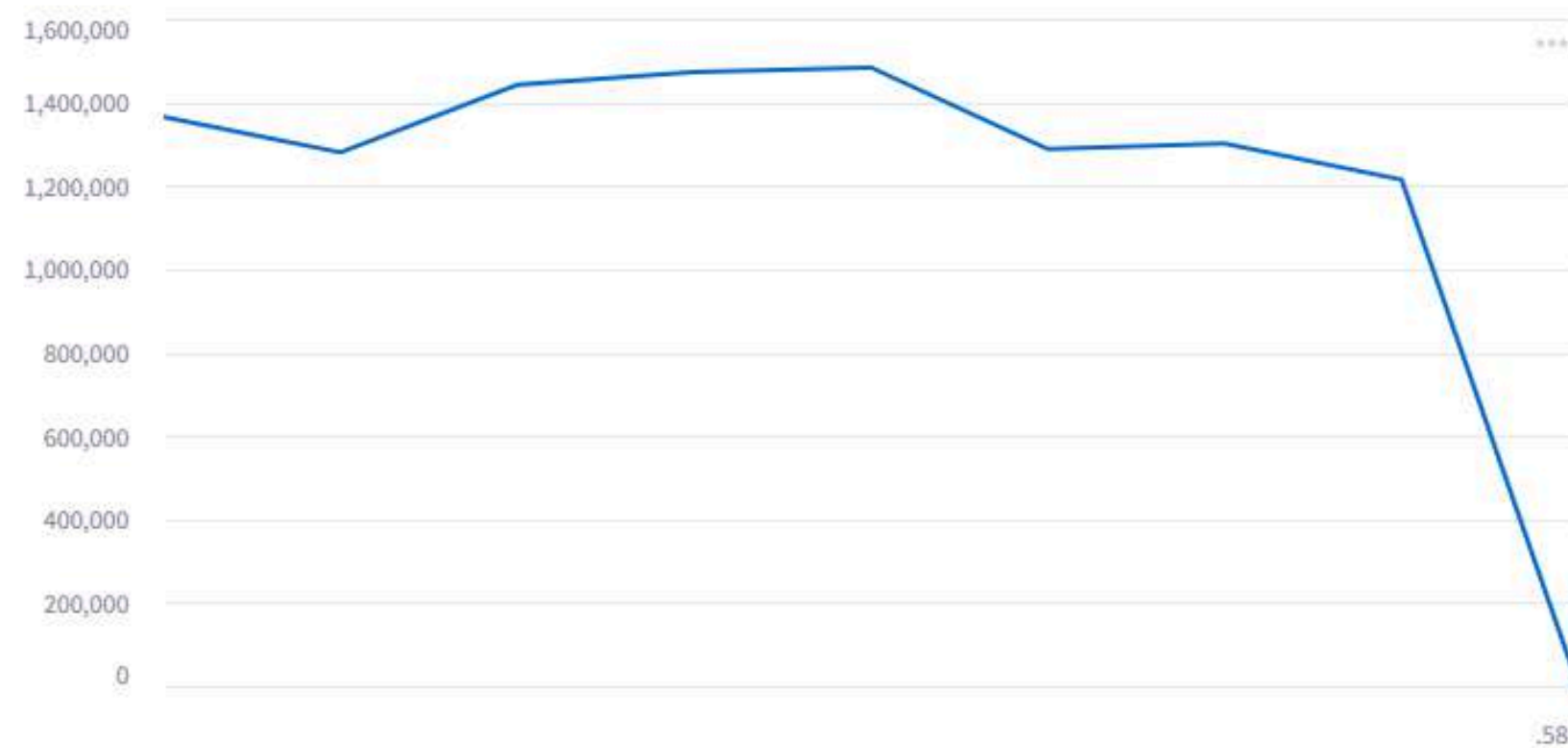
2018/10/31

commerce

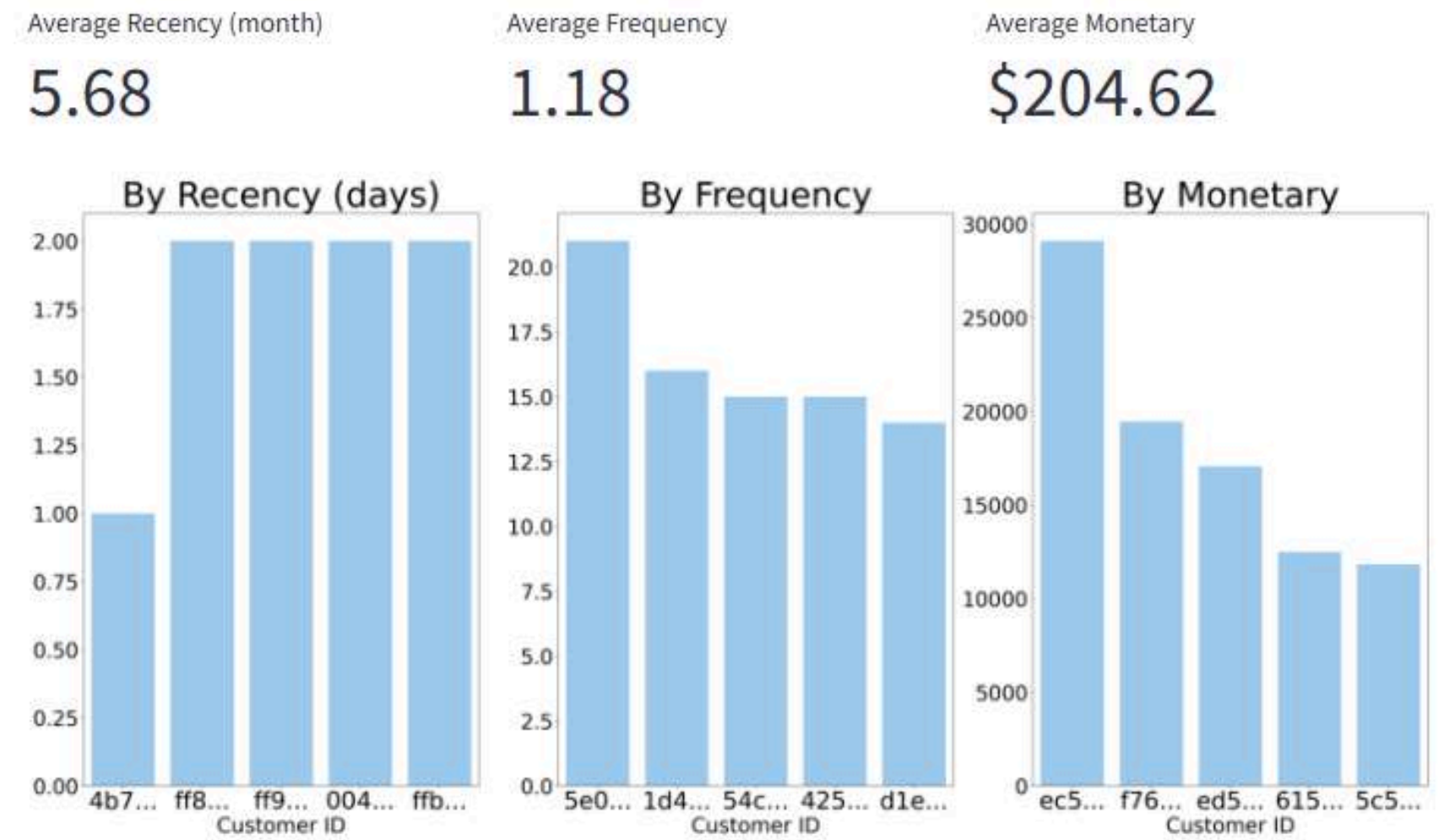
Analisis Penjualan Harian



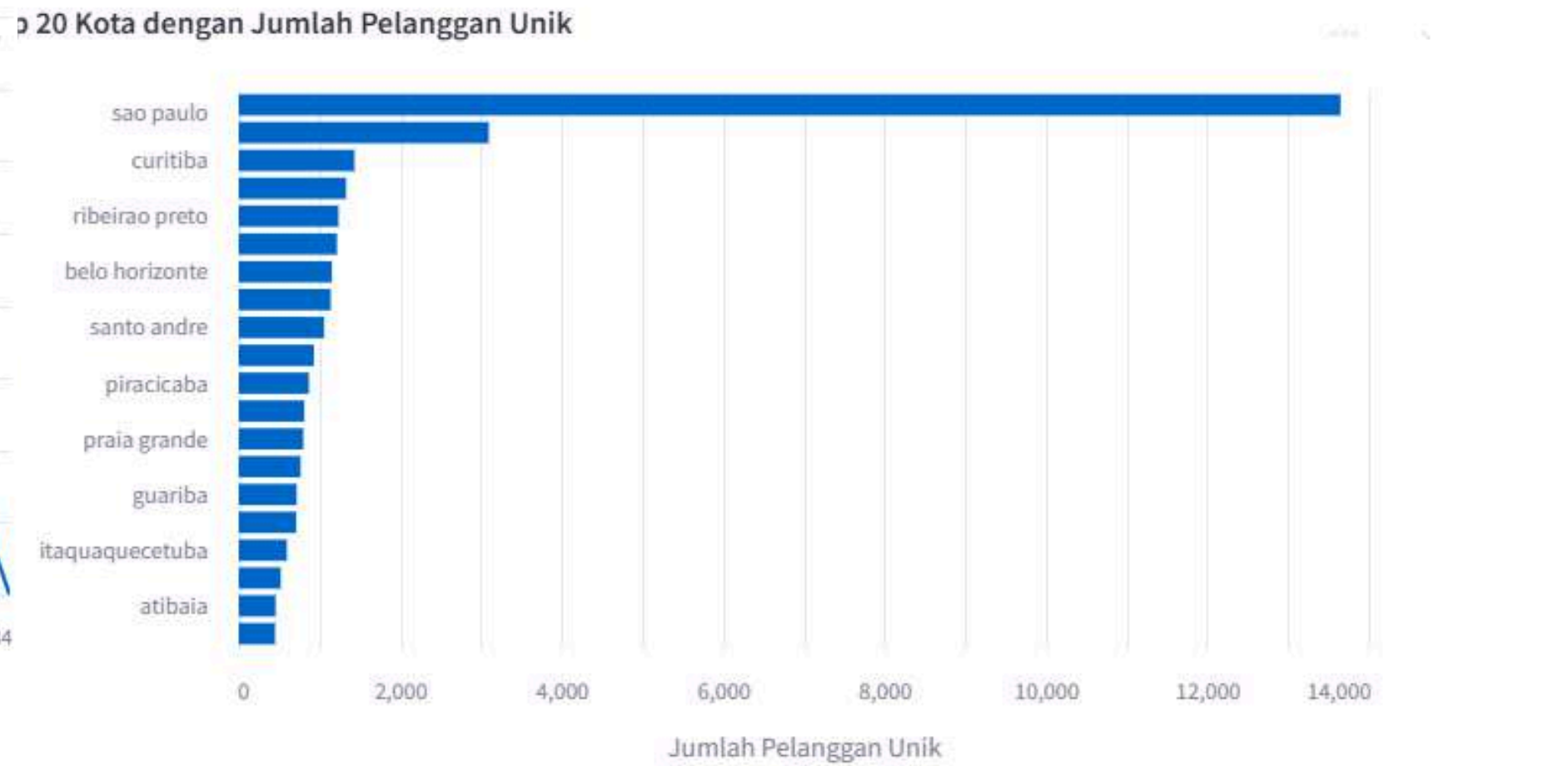
Analisis Penjualan Bulanan



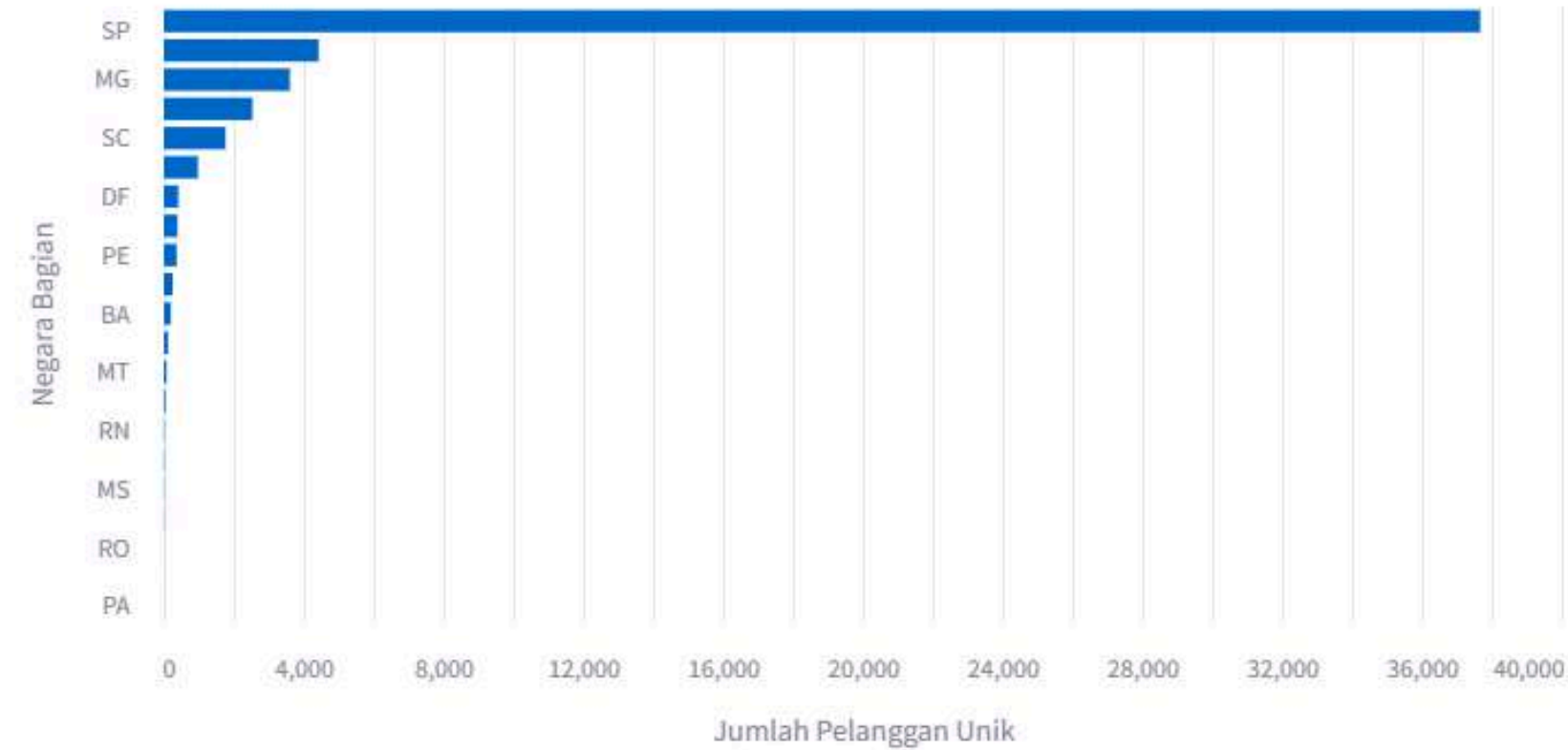
Pelanggan Terbaik Berdasarkan Parameter RFM



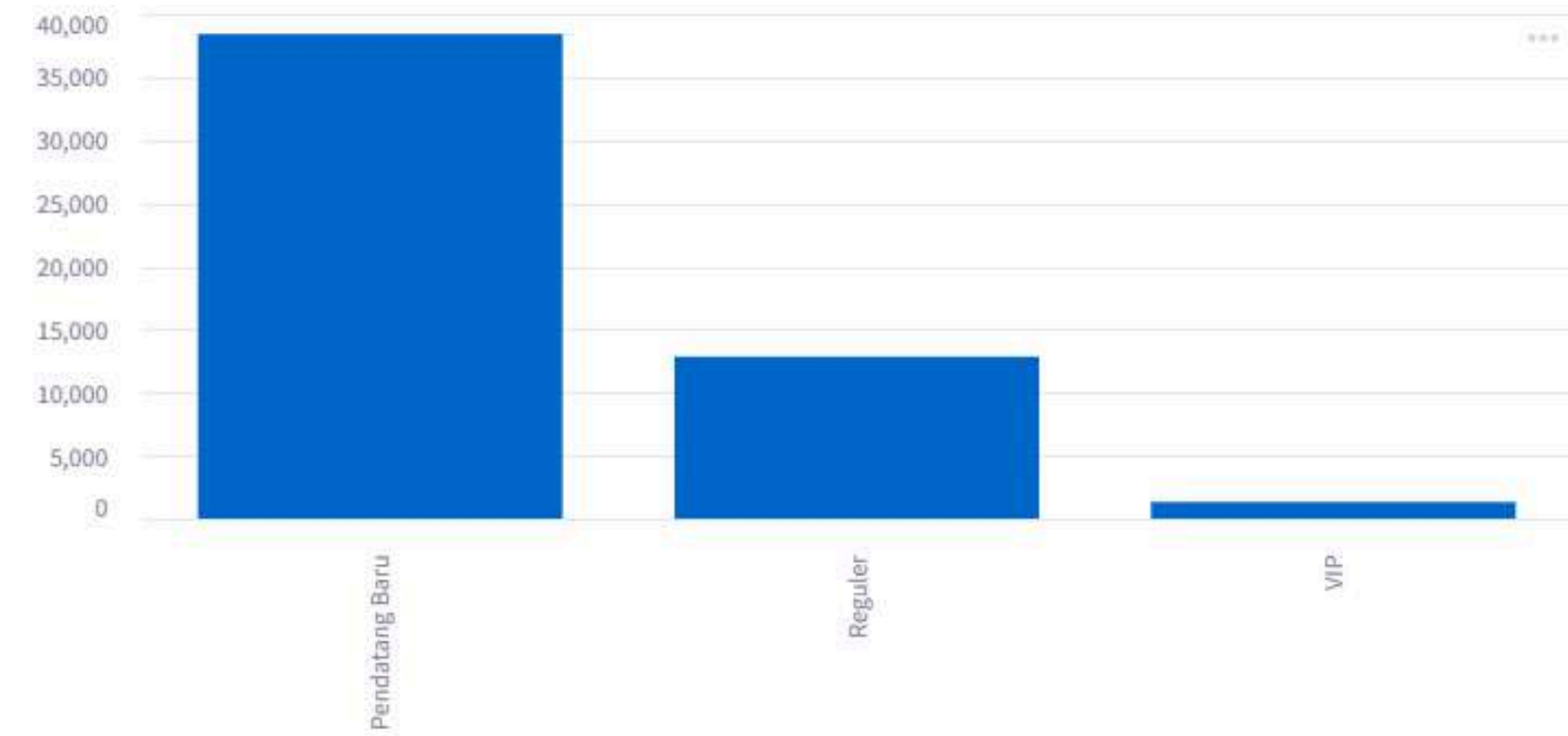
Analisis Lokasi Penjual



Jumlah Pelanggan Unik Berdasarkan Negara Bagian Penjual

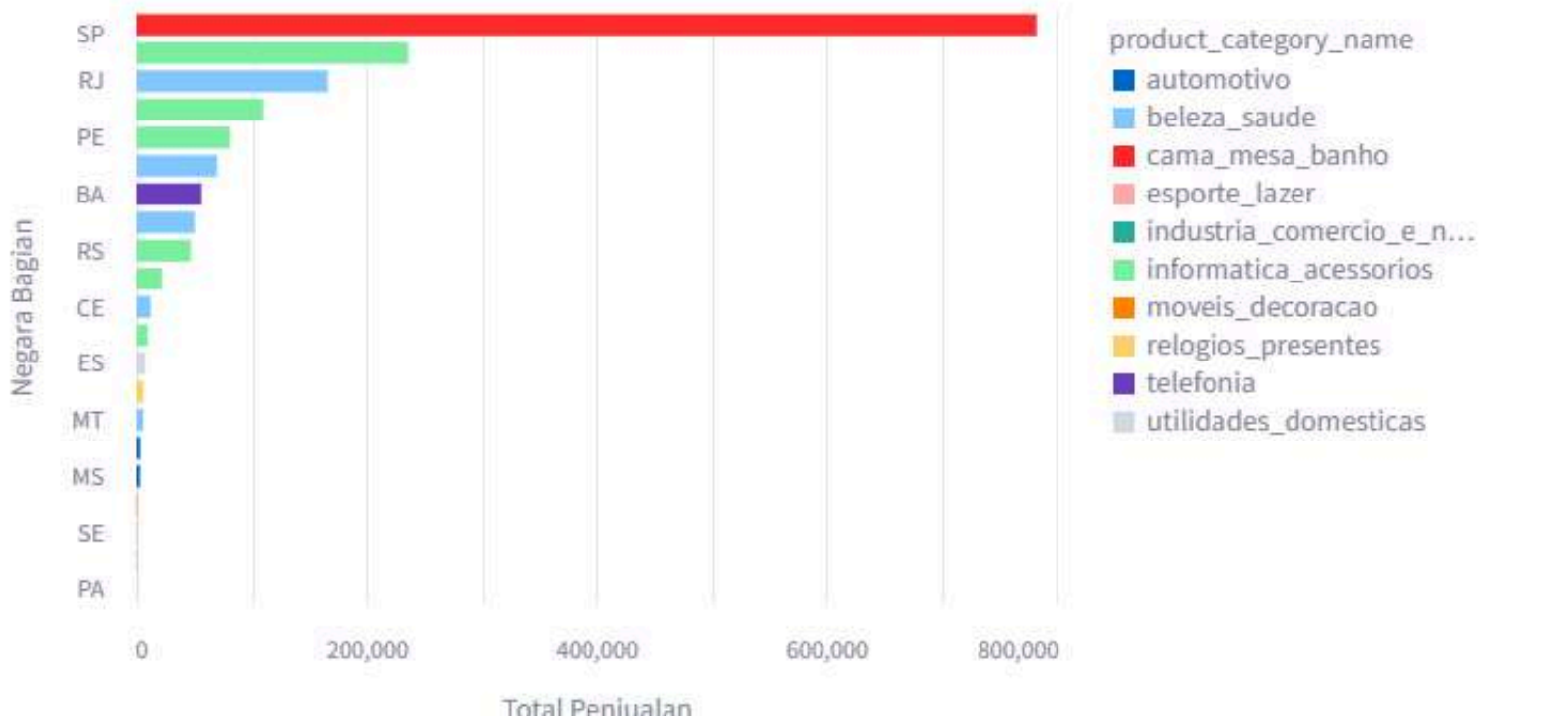


Jumlah Pelanggan Berdasarkan Kategori

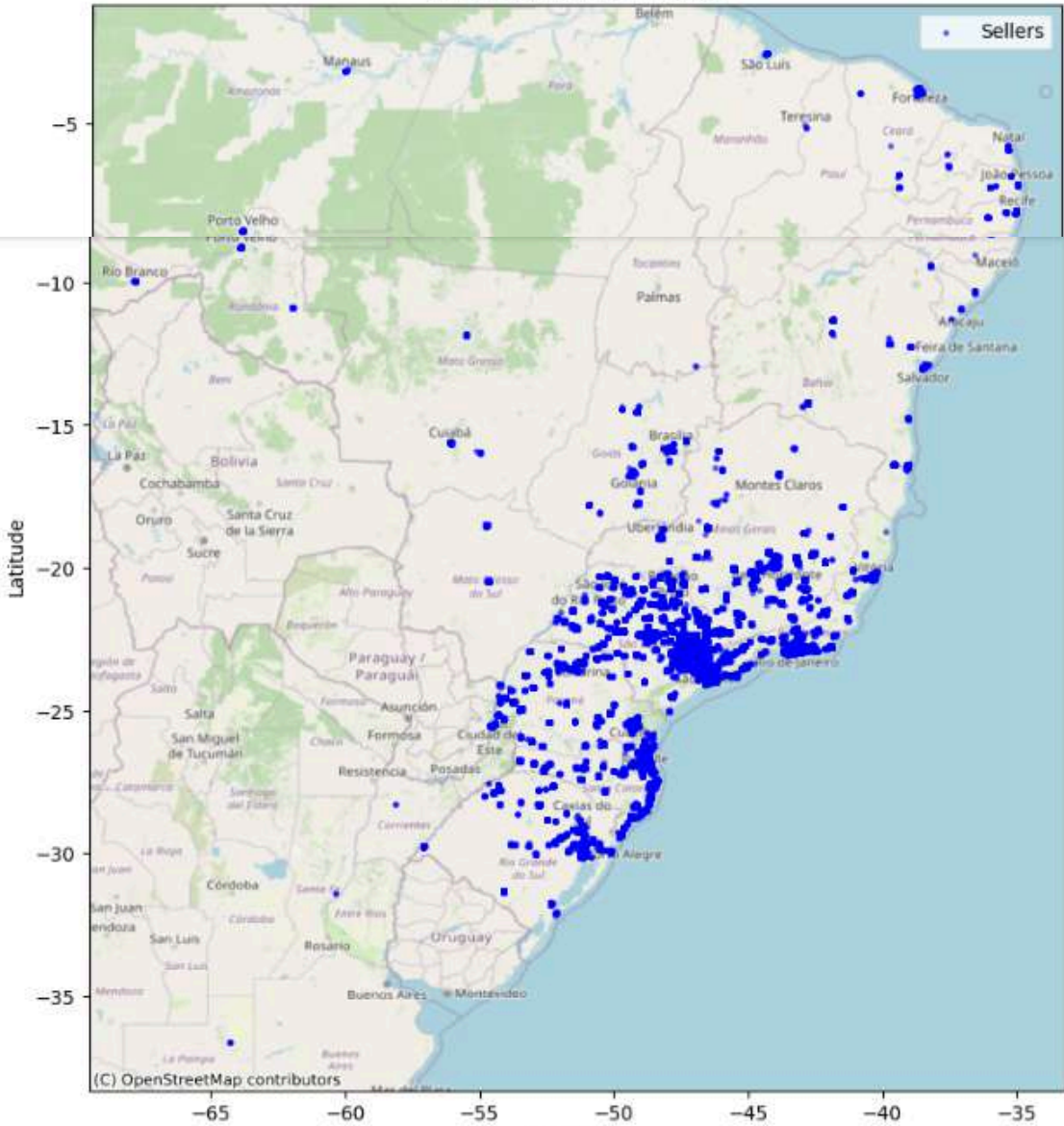


Kategori Produk dengan Penjualan Tertinggi di Setiap Negara Bagian

Kategori Produk Teratas Berdasarkan Penjualan di Setiap Negara Bagian



Seller Distribution in Brazil






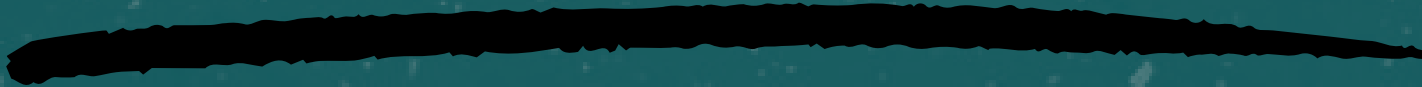
CANVAX: PHOTO TO PAINTING

Canvax is a web-based application that uses AI technology to transform ordinary photos into paintings in the styles of famous artists like Monet, Van Gogh, and Cézanne. The app combines art and technology, offering users a unique digital art experience.





TECHNOLOGY



TORCH CYCLEGAN

Implemented for style transfer to generate paintings in various artistic styles.

NESTJS

Backend to handle image processing and manage API endpoints.

HTML, CSS, JAVASCRIPT

Designed and developed the frontend for an intuitive user interface.





IMPACT

Canvax bridges the gap between technology and creativity by enabling users to easily create personalized artwork, boosting interest in AI-driven solutions for the arts. It demonstrates how AI can enhance digital creativity, opening up opportunities in industries like graphic design, custom art, and digital media.

LEARNING OUTCOMES

I gained proficiency in using Torch CycleGAN for artistic style transfer and strengthened my expertise in full-stack development with NestJS and frontend technologies. Additionally, I learned how to effectively integrate AI workflows with a user-friendly web interface to deliver impactful solutions.



[Upload](#) | [Sign out](#)

Welcome to **CanvaX**: Transform Your Images into Timeless Painting

CanvaX is a unique and innovative platform designed to transform your images into stunning digital paintings, breathing new artistic life into your creations. Whether you're a designer, artist, or simply someone who appreciates the beauty of art, our website provides an effortless way to merge your digital creativity with the charm of traditional painting styles.

Digital painting is a modern art form that simulates traditional painting techniques using digital tools, creating vibrant and intricate artworks that reflect the depth and texture of hand-painted pieces. With CanvaX, you can easily turn your photos into beautiful, painting-like masterpieces that capture the essence of classic art styles.

[Get started](#)



HOMEPAGE

SIGN IN / SIGN OUT



Welcome Back

Email address

Password

[Sign In](#)



CanvaX

Upload Your Image



Drop file to upload or **Browse**



Seamless Transformation

Our advanced algorithm transforms your images into intricate batik patterns, preserving the unique essence of both traditional and modern designs.



Fast and Easy

No need for complex software. Simply upload your image, and our tool will generate a batik pattern in seconds, ready for download.

Our water

UPLOAD PAGE

CROP TO TRANSFORM



Monet


Cancel

Transform

to Use

with no hidden costs or
unlimited results for free.


MONET RESULT




Seamless Transformation

Our advanced algorithm transforms your images into intricate batik patterns, preserving the unique essence of both traditional and modern designs.

Result



Complete



Free to Use

Our tool is free to use with no hidden costs or watermarks. Download unlimited results for free.

Digital platform to efficiently **manage student housing** (kos). The system was designed to **assist kos owners** in managing **resident data, payments, and facilities**. Key features I worked on include **user management, payment processing, and data reporting**.

The **system** is expected to **enhance kos management efficiency**, reduce administrative errors, and provide accurate and timely information to kos owners.

PHP: Backend system to manage user operations, payment processing, and facility management.

MySQL: Database schema to handle resident, payment, and facility data efficiently.

HTML, CSS, JavaScript, Bootstrap: Developed the frontend using Bootstrap to create a responsive and user-friendly interface for administrative tasks.

SUMMARY

IMPACT

TECHNOLOGY

SMART KOS

Management System

learning outcomes

- Gained practical experience in web-based software development and database management.
 - Improved skills in designing intuitive user interfaces
 - Developed problem-solving through testing and debugging
- pick booking room

Admin Side

images

manage residents

Nomor Kamar	Harga Kamar	Jenis Kamar	Status	Action
1	1000000.00	mantap	available	Delete Edit
2	1000000.00	mantap	available	Delete Edit
3	1000.00	large	available	Delete Edit

Sistem Kos

HOME ABOUT SERVICES CONTACT

Pilih Kamar

Nomor Kamar: 1

Durasi (bulan):

Tanggal Mulai Sewa: dd/mm/yyyy

Total harga kamar:

Tanggal Selesai Sewa: dd/mm/yyyy

Submit

manage fines

No	Peghuni	Total Denda	Keterangan	ID Admin	Actions
1	ivan	10000.00	merusak jendela kamar	admin1	Edit Delete

User Side

images Manage Bills

MANAGE BILLS

HOMEABOUTSERVICESCONTACT

User Bills List

ID Kamar	Bulan	Maksimal Bayar	Total Bayar	Denda Keterlambatan	Tanggal Bayar	Status
5	1	2024-06-12	1000000.00	0.00		Payment
5	2	2024-07-12	1000000.00	0.00		Payment
6	1	2024-06-21	1000000.00	0.00		Payment
6	2	2024-07-21	1000000.00	0.00		Payment

MANAGE FINE

HOMEABOUTSERVICESCONTACT

Detail Pembayaran

Detail Payment

Nama Tagihan:
Tagihan Kamar

Tanggal Maksimal Bayar:
2024-06-12

Jumlah Tagihan:
1000000.00

Denda:
3950000

Total Tagihan:
4950000

Pay Now

BATMAN-SIMULATOR

3D simulator using Three.js, allowing users to explore a virtual Gotham City with dynamic cityscape interactions. The project included features enabling users to assume the role of Batman. My primary focus was on designing and implementing the camera control logic and the core concepts of the simulation, ensuring an immersive and interactive user experience.



Batman gotham simulator- [YouTube](#)




LEARNING OUTCOMES

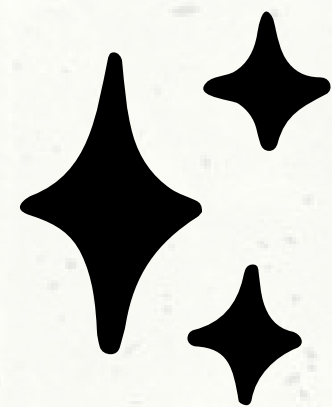
I gained practical experience in camera systems, lighting techniques, collision detection, and cinematography. I mastered various camera controls and applied lighting models to create realistic environments, enhancing gameplay and visual appeal.



IMPACT

The Gotham Batman Simulator enhances user engagement with its advanced camera controls, dynamic lighting, and realistic collision detection, creating an immersive Gotham City experience. It sets a new standard for interactive simulations with its sophisticated cinematographic features.





TECHNOLOGY



JAVASCRIPT

Programming language for building core game mechanics, handling user input, and controlling game logic.

THREE.JS

3D JavaScript library used to render and display the Gotham City environment, handle animations, and manage camera controls.

CANNON.JS

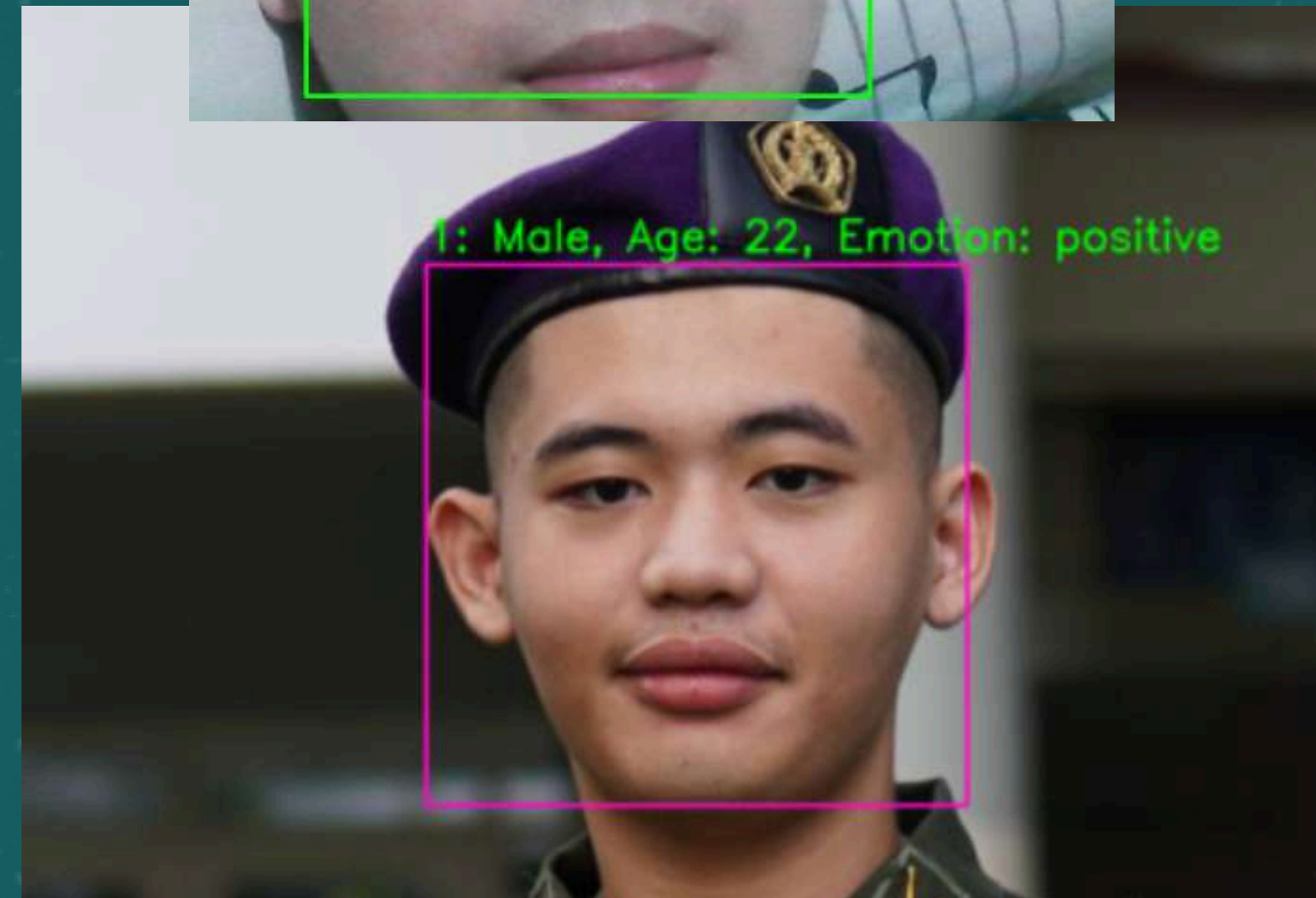
For physics and collision detection to provide realistic interactions with the game environment.

WEBGL

For rendering 3D graphics directly in the browser without requiring external plugins.

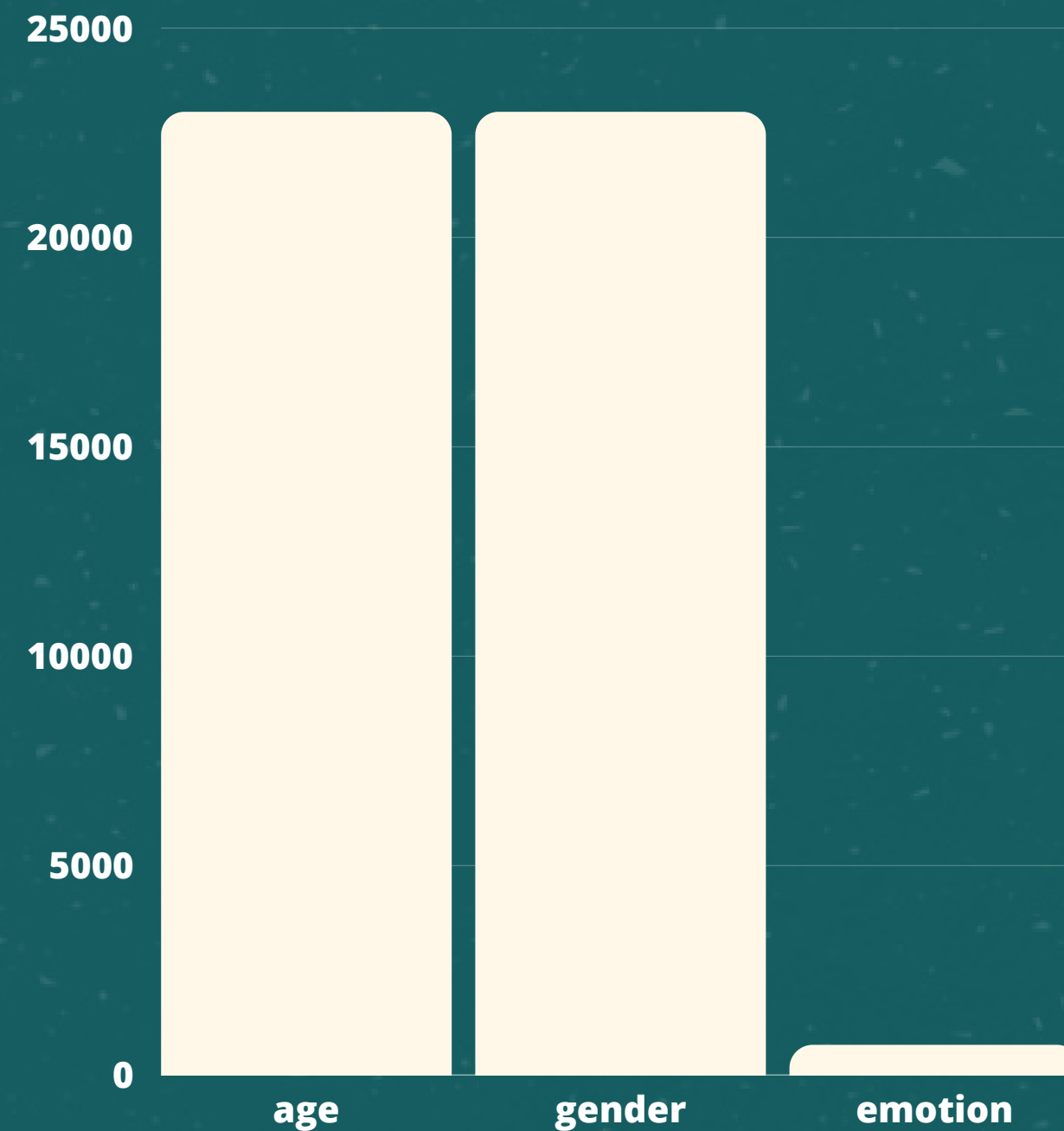
PROJECT PERSONAPROFILER

an AI-powered system using Convolutional Neural Networks (CNN) and TensorFlow dan Python to accurately detect age, gender, and emotion from facial images. This system was aimed at empowering businesses to optimize revenue by gaining valuable insights into customer demographics and sentiment.



THE DATA

UTKFace dataset consisting of 23,000 images, which provided a diverse range of faces with annotated age and gender labels. For emotion recognition, we employed the CK+48 dataset with 720 images, which included various facial expressions representing different emotional states.





TECHNOLOGY

PYTHON

Programming language for implementing the core AI system and data processing pipelines.

TENSORFLOW

Machine learning framework used to design and train a custom convolutional neural network (CNN) for image analysis and prediction.

KERAS

High-level neural networks API (integrated with TensorFlow) used to build and fine-tune the model for optimal accuracy.

OPENCV

Used for image preprocessing and feature extraction from input data.



IMPACT

The AI system provided businesses with actionable insights into customer demographics and emotions, enabling more targeted marketing strategies and improved customer engagement. This data-driven approach helps optimize revenue by aligning business strategies with customer profiles and sentiment.

LEARNING OUTCOMES



I gained expertise in managing large datasets, designing CNN architectures, optimizing model performance, and deploying machine learning solutions. I also learned how AI can provide valuable business insights into customer demographics and emotions.

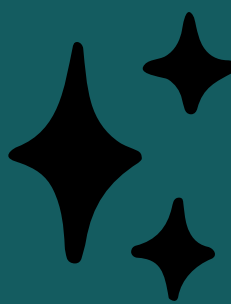


UNIVERSITY ROOM BOOKING




A comprehensive room booking system tailored for university use. This system provides an efficient platform for administrators to manage user accounts, room details, and reservations, while allowing users to easily book rooms and track their bookings






TECHNOLOGY



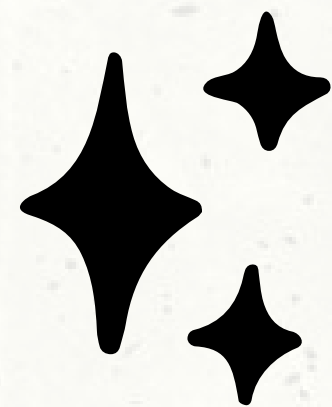
The system was developed using PHP for server-side logic and MySQL for database management. The frontend was built with HTML and CSS for structure and styling, with Bootstrap ensuring a responsive design. JavaScript with jQuery was used for dynamic content updates and smoother interactions, while AJAX was employed to update content without page reloads. The system was tested and deployed using local server environments like XAMPP/WAMP.



IMPACT



The system significantly improves administrative efficiency by automating user and room management, and simplifies the booking process for users, leading to more organized room usage and reduced manual errors.



LEARNING OUTCOMES



FULL-STACK DEVELOPMENT

Gained hands-on experience in designing both frontend and backend components, enhancing my skills in building comprehensive web applications.

DATABASE MANAGEMENT

Developed expertise in structuring and managing databases, crucial for handling user and room data efficiently.

USER INTERFACE DESIGN

Improved my ability to create intuitive and user-friendly interfaces, ensuring a seamless experience for both admins and users.

PROBLEM-SOLVING

Strengthened my skills in troubleshooting and integrating different system components, ensuring a robust and functional application.

REGISTER ADMIN

Nama Lengkap

NIP

Password

Tambah

Id	NIP	Full Name	Email
1	d12450982	DummyAdmin	Admin123@gmail.com

BAN DATA USERS

KEMBALI

NRP	PASSWORD	NAMA	EMAIL	STATUS_BAN	BAN ACTION
c14220302	misaelyoih	Misael Yoih	c14220302@john.petra.ac.id	0	
b12	budi123	Budi Doremi	b12@john.petra.ac.id	0	
1	1	123	1@john.petra.ac.id	0	
12	12	Dillan Engelbert Hendrarto	12@john.petra.ac.id	1	BAN USER

PinjamRuangan | Welcome, DummyAdmin

Daftar RuanganDaftar Peminjaman AdminAdd RuanganAdd AdminBan UserLogout



P205

Ruang Kelas
Kapasitas Ruangan: 30

Pinjam Ruang

Edit Ruang



P203

Ruang Kelas
Kapasitas Ruangan: 50

Pinjam Ruang

Edit Ruang



P204

Ruang Kelas
Kapasitas Ruangan: 80

Pinjam Ruang

Edit Ruang

PINJAM RUANG

Kode Ruang

AuditW

Tanggal

dd/mm/yyyy



Mulai

hhmm

Selesai

hhmm

Acara

Nama acara

Keterangan

PINJAM



THANK YOU!