Portfolio Project

Sheila Hikmatul Maula

Introduction

I'm Sheila Hikmatul Maula, Fresh graduate in Information Systems with strong skills in UI/UX design and usability evaluation, supported by experience during an internship at Bappeda Tulungagung. I also have foundational knowledge in Golang, PHP, HTML, and CSS, gained through academic projects and an independent study at Skill Academy by Ruangguru, where I explored backend engineering and Go language. Detail-oriented and adaptable, I am driven by curiosity and a passion for technology, committed to continuous learning and creating effective digital solutions.

Experience

Backend Engineer Independent Study Kampus Merdeka Batch 6 (February–June 2024)

Ruangguru, PT. Ruang Raya Indonesia

AI Integration in Backend Engineering Application Development, this program equipped participants with essential skills to develop AI-powered energy-saving applications. It covered programming basic (terminal, VSCode, Git), Golang programming, concurrency, file management, third-party API integration, authentication, HTTP server/client creation, and web development. Also learned fundamentals of probability and linear algebra for machine learning. The program emphasized affective communication, presentations, public speaking, and critical and creative thinking skills.

SERTIFIKAT

MAGANG DAN STUDI INDEPENDEN BERSERTIFIKAT

Diberikan Kepada :

SHEILA HIKMATUL MAULA

ID Kegiatan : 7514496 - Universitas Merdeka Malang - Sistem Informasi

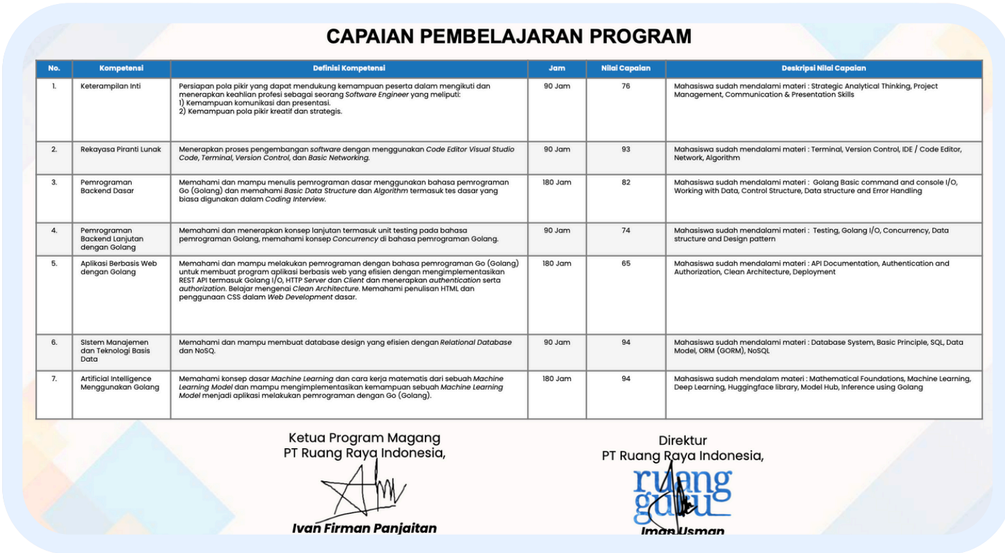
Sebagai :

Peserta MSIB Angkatan 6

Telah berhasil menyelesaikan tugasnya di PT. Ruang Raya Indonesia dalam **program Integrasi AI Dalam Pengembangan Aplikasi Backend Engineering** dengan project/posisi/kegiatan **Studi Independen Bersertifikat** yang diselenggarakan pada **tanggal 16 Februari–30 Juni 2024**.

Ketua Program Magang
PT Ruang Raya Indonesia,

Jakarta 30 Juni 2024
Direktur
PT Ruang Raya Indonesia,



CAPAIAN PEMBELAJARAN PROGRAM

No.	Kompetensi	Definisi Kompetensi	Jam	Nilai Capaian	Deskripsi Nilai Capaian
1.	Keterampilan Inti	Persiapan pola pikir yang dapat mendukung kemampuan peserta dalam mengikuti dan menerapkan keahlian profesi sebagai seorang *Software Engineer* yang meliputi: 1) Kemampuan komunikasi dan presentasi. 2) Kemampuan pola pikir kreatif dan strategis.	90 Jam	76	Mahasiswa sudah mendalami materi : Strategic Analytical Thinking, Project Management, Communication & Presentation Skills
2.	Rekayasa Piranti Lunak	Menerapkan proses pengembangan *software* dengan menggunakan *Code Editor Visual Studio Code, Terminal, Version Control,* dan *Basic Networking.*	90 Jam	93	Mahasiswa sudah mendalami materi : Terminal, Version Control, IDE / Code Editor, Network, Algorithm
3.	Pemrograman Backend Dasar	Memahami dan mampu menulis pemrograman dasar menggunakan bahasa pemrograman Go (Golang) dan memahami *Basic Data Structure* dan *Algorithm* termasuk tes dasar yang biasa digunakan dalam *Coding Interview.*	180 Jam	82	Mahasiswa sudah mendalami materi : Golang Basic command and console I/O, Working with Data, Control Structure, Data structure and Error Handling
4.	Pemrograman Backend Lanjutan dengan Golang	Memahami dan menerapkan konsep lanjutan termasuk unit testing pada bahasa pemrograman Golang, memahami konsep *Concurrency* di bahasa pemrograman Golang.	90 Jam	74	Mahasiswa sudah mendalami materi : Testing, Golang I/O, Concurrency, Data structure and Design pattern
5.	Aplikasi Berbasis Web dengan Golang	Memahami dan mampu melakukan pemrograman dengan bahasa pemrograman Go (Golang) untuk membuat program aplikasi berbasis web yang efisien dengan mengimplementasikan REST API termasuk Golang I/O, HTTP Server dan *Client* dan menerapkan *authentication* serta *authorization.* Belajar mengenal *Clean Architecture.* Memahami penulisan HTML dan penggunaan CSS dalam *Web Development* dasar.	180 Jam	65	Mahasiswa sudah mendalami materi : API Documentation, Authentication and Authorization, Clean Architecture, Deployment
6.	Sistem Manajemen dan Teknologi Basis Data	Memahami dan mampu membuat database design yang efisien dengan *Relational Database* dan NoSQ.	90 Jam	94	Mahasiswa sudah mendalami materi : Database System, Basic Principle, SQL, Data Model, ORM (GORM), NoSQL
7.	Artificial Intelligence Menggunakan Golang	Memahami konsep dasar *Machine Learning* dan cara kerja matematis dari sebuah *Machine Learning Model* dan mampu mengimplementasikan kemampuan sebuah *Machine Learning Model* menjadi aplikasi melakukan pemrograman dengan Go (Golang).	180 Jam	94	Mahasiswa sudah mendalami materi : Mathematical Foundations, Machine Learning, Deep Learning, Huggingface library, Model Hub, Inference using Golang

Ketua Program Magang
PT Ruang Raya Indonesia,

Ivan Firman Panjaitan

Direktur
PT Ruang Raya Indonesia,

Iman Usman

User Interface Evaluation and Design Recommendations for the Tulungagung Portal Website Using the Heuristic Evaluation Method

Final Project for Bachelor Thesis (2025)

Government websites serve as essential platforms for delivering information and public services online, yet many still face usability challenges. The present study evaluates the user interface of the Tulungagung Regency Government website and provides interface improvement recommendations. The research utilized a heuristic evaluation method involving three evaluators and applied ten heuristic principles to identify usability issues. Data were collected through direct observation, documentation, and user questionnaires. Interface improvement recommendations were designed as a high-fidelity prototype using Figma. To test the effectiveness of the proposed design, usability testing was conducted using the System Usability Scale (SUS) method involving 25 respondents. The study found key issues including inconsistent visual design, disorganized menu structure, and lack of system feedback. The usability testing results indicated a significant increase in usability scores with the redesigned prototype compared to the original version. The research contributes to the development of more user-friendly government websites and can serve as a reference for similar interface evaluations in the public sector.

User Interface Evaluation and Design Recommendations for the Tulungagung Portal Website Using the Heuristic Evaluation Method

Final Project for Bachelor Thesis

Using Heuristic Evaluation (HE) methods to assess usability of the official Tulungagung Regency Government website interface. Three Evaluators with background UI/UX and information systems conducted the evaluation process.

Table 1. Overall Heuristic Evaluation Results

Heuristic	E1	E2	E3	Total
Visibility of System Status	2	2	2	6
Match Between System and Real World	2	2	2	6
User Control and Freedom	1	2	2	5
Consistency and Standards	2	1	2	5
Error Prevention	2	2	2	6
Recognition Rather than Recall	2	2	1	5
Flexibility and Efficiency of Use	1	2	2	5
Aesthetic and Minimalist Design	2	2	2	6
Help User Recognize, Diagnose, and Recover from Error	1	2	2	5
Help and Documentation	1	2	1	4
Total	16	19	18	53

Table 2. Percentage and Average Severity Rating

Heuristic	Problem Count	Percentage (%)	Average Severity Rating
HE1	2	7.4%	2.50
HE2	2	7.4%	3.50
HE3	2	7.4%	3
HE4	4	14.8%	3
HE5	3	11.1%	3
HE6	4	14.8%	1.75
HE7	1	3.7%	2
HE8	3	11.1%	3
HE9	3	11.1%	2.33
HE10	3	11.1%	2.33

User Interface Evaluation and Design Recommendations for the Tulungagung Portal Website Using the Heuristic Evaluation Method

Final Project for Bachelor Thesis

Based on heuristic evaluation results, 27 usability problems were identified by three evaluators. These findings became the foundation for developing interface improvement recommendations for the Tulungagung Portal website. Improvements focused on user interface aspects that encompass visual enhancements aligned with problems discovered by evaluators.

Table 3. Problems and Interface Improvement Suggestions

Code	Problem Description	Improvement Suggestion	Severity Rating
P1	Menu arrangement and page content lack logical structure	Structure adjustment	4
P2	No back button/breadcrumbs	Add back button or breadcrumbs	4
P3	Initial menu display differs from sub-menu	Establish icons and terminology for each page	4
P4	Main page display too crowded	Remove irrelevant elements and determine design concept	4
P5	Cluttered content, overly contrasting colors, and small text	Adjust layout, colors, and balanced fonts	4
P6	Contrasting and inconsistent color selection	Use consistent colors	3
P7	Several pages have different layouts and fonts	Create standardization for fonts, layouts, and menu placement	3
P8	Not all active menus receive visual indicators	Ensure active menu highlighting and consistency	2
P9	Not all interactions can be closed clearly	Add close buttons	2
P10	Link colors not uniform	Use unified color system	2
P11	No active position/breadcrumb navigation	Add breadcrumbs or active position indicators	2
P12	Menus hidden in dropdowns, not explicit	Display menus consistently	2
P13	Menus not well-grouped	Group menus by category	1
P14	Overlapping elements, not aligned horizontally and vertically	Apply visual hierarchy	1

User Interface Evaluation and Design Recommendations for the Tulungagung Portal Website Using the Heuristic Evaluation Method

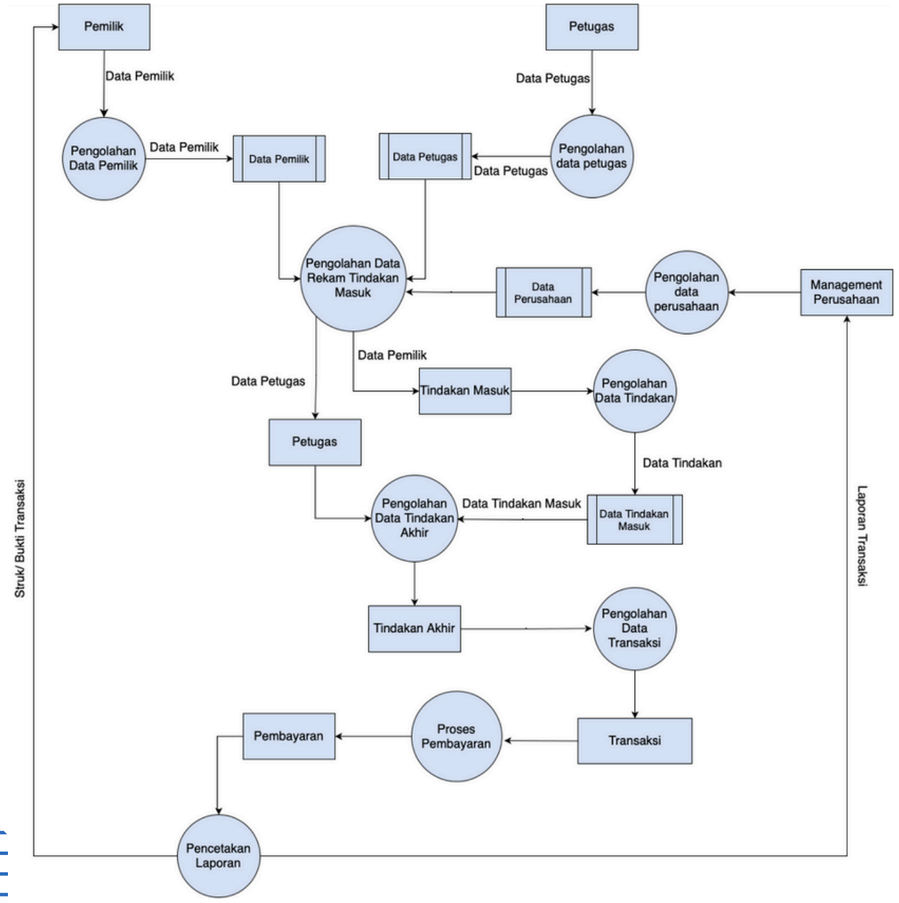
Final Project for Bachelor Thesis

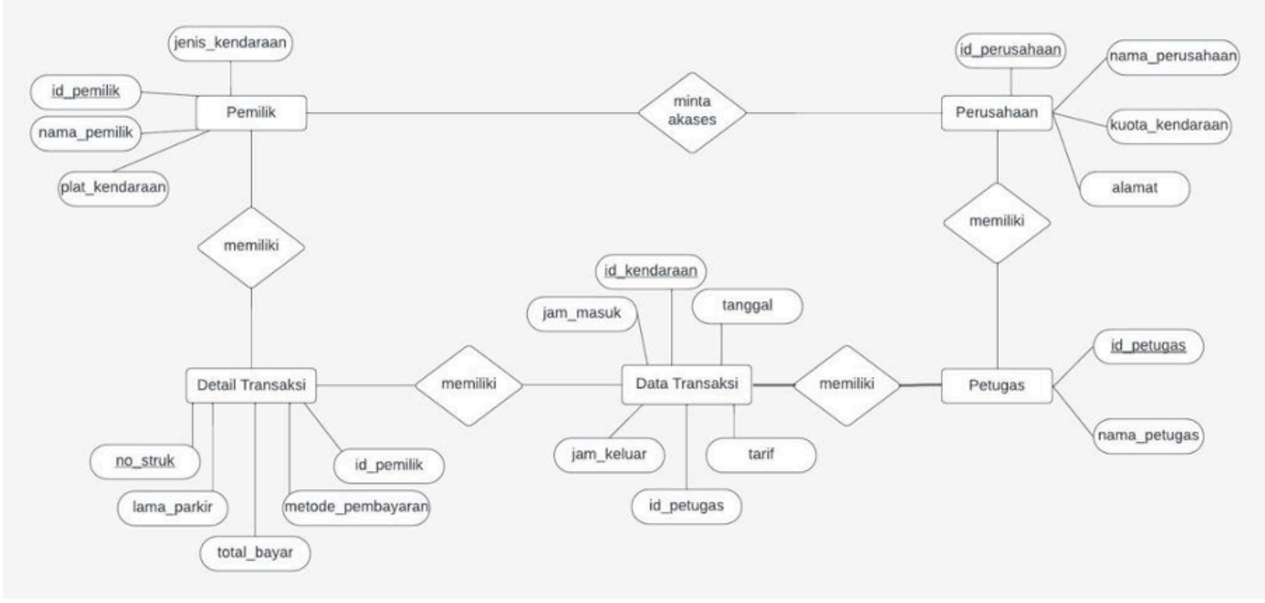
Old Design

Rec. [Link Figma](#)

Pay Safe Parking- 2024 (Team project)

Creating a business plan for an app development project called “Pay Safe Parking”, encompassing flowmaps, application structure analysis, DFD, ERD, and culminating in wireframe and prototype development.

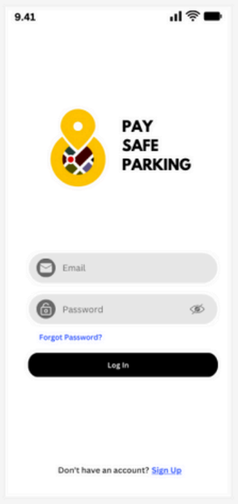




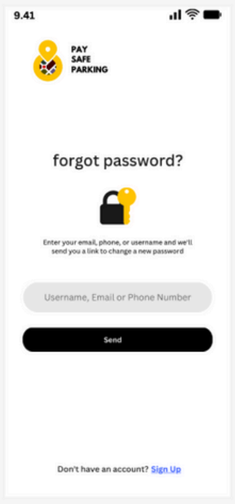
Pay Safe Parking- 2024 (Team project)

Load

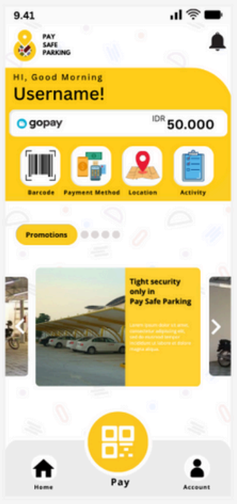
Login



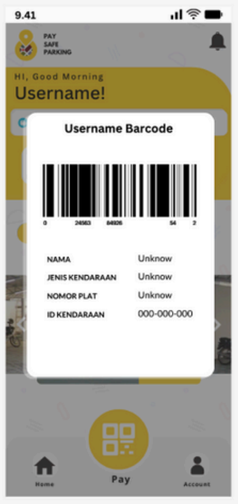
Forgot Password



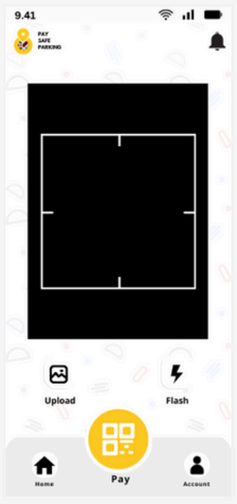
Dashboard



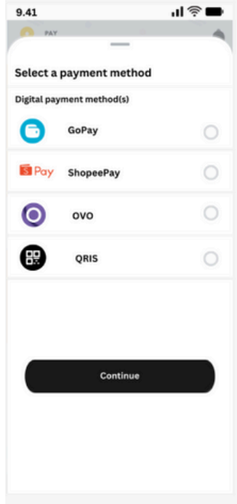
Username Barcode



Scanner



Payment Method



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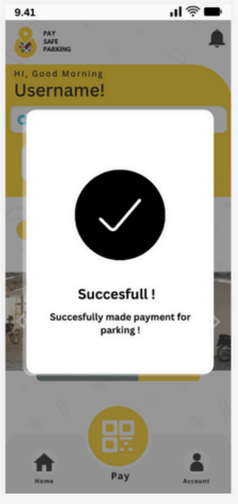
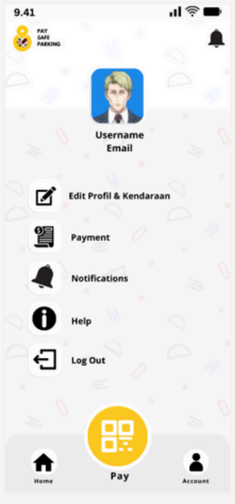
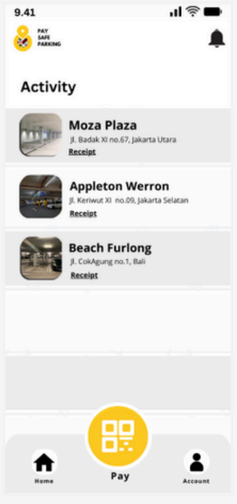


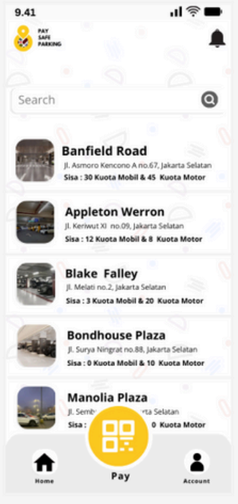
Profile



Activity



List Location



Thank You

081343896711

sheilamaula09@gmail.com

Thank you—I look forward
to working together!