

LEGAL EASE

Supervisor.	Lê Mộng Thúy	
Batch.	T3.2508.E1	
Group.	3	
Serial No.	Student Name	Enrollment Number
1	NGUYỄN ĐỨC LONG	Student1685473
2	HOÀNG NGỌC LÊ	Student1865556
3	CHÂU NHẬT MINH	Student1689260
4	NGUYỄN HOÀNG SƠN	Student1685526
5	NGÔ MINH THÀNH	Student1645266

TP.HCM 27-12-2025

DESIGN PLAN	LegalEase	DOCUMENT	Review 1+2+3
EFFECTIVE DATE	27/12/2025	VERSION	1.0

Contents

REVIEW 1: LEGALEASE SYSTEM ANALYSIS	2
1. ACKNOWLEDGEMENTS	2
2. ePROJECT SYNOPSIS.....	2
3. ePROJECT ANALYSIS	3
3.1 System Overview.....	3
3.2 User Classes & Roles.....	3
3.3 Business Rules	4
3.4 Functional Requirements.....	4
3.5 Non-Functional Requirements.....	5
3.6 Assumptions & Constraints	5
REVIEW 2: SYSTEM DESIGN & DATABASE MODELING	6
4. eProject Design	6
4.1 Data Flow Diagram (DFD).....	6
4.2 Database Design	10
4.3 Entity–Relationship Diagram (ERD).....	20
4.3.1 Overview	20
4.3.2 Detailed Relationship Descriptions	20
4.3.3 Data Integrity Constraints	27
4.3.4 Conclusion.....	27

DESIGN PLAN	LegalEase	DOCUMENT	Review 1+2+3
EFFECTIVE DATE	27/12/2025	VERSION	1.0

REVIEW 1: LEGALEASE SYSTEM ANALYSIS

1. ACKNOWLEDGEMENTS

Our team would like to dedicate this section to expressing our sincere gratitude to all individuals and organizations who have supported us throughout the implementation of this project.

First and foremost, we would like to express our deepest appreciation to our supervising lecturer, who provided valuable guidance, professional feedback, and timely encouragement, helping our team overcome technical challenges as well as the pressure encountered during the project development process.

In addition, we would like to sincerely thank the eProject Team at the Head Office for creating the conditions and opportunities for us to apply our acquired knowledge to a highly practical project.

Finally, we would like to extend our heartfelt thanks to all team members and classmates who were always willing to support, share knowledge, and collaborate closely to ensure the project was completed on schedule.

2. ePROJECT SYNOPSIS

LegalEase is a web-based platform designed to connect individuals and businesses with professional lawyers through an integrated system for searching, reviewing, and scheduling online consultations. The system aims to address the limitations of traditional lawyer-finding methods, such as lack of information transparency, difficulty in comparing expertise, and complex communication procedures.

LegalEase allows clients to search for lawyers by legal specialization and geographic location, view verified profiles, book consultation appointments based on lawyers' real-time availability, and submit reviews after completing consultations. At the same time, the system enables lawyers to manage professional profiles, work schedules, and track income generated from consultation sessions.

The system is managed and controlled by administrators to ensure transparency, security, and compliance with the platform's operational regulations.

DESIGN PLAN	LegalEase	DOCUMENT	Review 1+2+3
EFFECTIVE DATE	27/12/2025	VERSION	1.0

3. ePROJECT ANALYSIS

3.1 System Overview

LegalEase is a web-based system that operates as an intermediary platform connecting clients seeking legal consultation with licensed practicing lawyers. The system provides search, filtering, and matching mechanisms based on legal expertise, geographic location, verification status, and lawyers' availability schedules.

The main system workflow includes:

- Clients search for and select suitable lawyers
- Booking consultation appointments based on available time slots
- Payment processing (if applicable)
- Completion of consultation and submission of reviews

In addition, the system supports its business model by collecting commission fees from appointments and offering priority subscription packages for lawyers.

3.2 User Classes & Roles

The LegalEase system includes the following primary user groups:

Guest (Unregistered Visitor)

- Can search for lawyers by legal field and location
- View public lawyer information
- Read legal articles and community content
- Cannot book appointments or submit consultation requests

Customer (Registered Client)

- Manage personal profile
- Search for and save favorite lawyers
- Book consultation appointments based on lawyers' available schedules
- Receive appointment and payment confirmation notifications
- Submit reviews after completing consultations

Lawyer

- Register an account and provide professional practice information
- Submit verification documents for Admin approval

DESIGN PLAN	LegalEase	DOCUMENT	Review 1+2+3
EFFECTIVE DATE	27/12/2025	VERSION	1.0

- Manage professional profile and qualifications
- Set up working schedules (available time slots)
- Receive and handle appointment requests from clients
- Track income and number of consultation sessions

Administrator

- Manage user accounts
- Review and verify lawyer profiles
- Manage system content and community Q&A
- Monitor financial activities and system logs
- Manage notification and automated email systems

3.3 Business Rules

The LegalEase system follows these business rules:

- Only lawyers verified by the administrator are allowed to appear in search results.
- Clients can only book consultation appointments during time slots set by lawyers.
- Each available time slot can be assigned to only one appointment.
- Appointments are considered valid only when their status is confirmed.
- The system may apply a commission fee for each successful appointment.
- Lawyers can subscribe to service packages to increase visibility in search results.
- Client reviews can only be submitted after the appointment is completed.

3.4 Functional Requirements

The system must meet the following functional requirements:

- The system allows clients to search for lawyers by legal specialization and geographic location.
- The system displays detailed lawyer profiles, including experience, qualifications, and reviews.
- The system allows lawyers to set up and manage available time slots.
- The system allows clients to book consultation appointments based on available schedules.
- The system allows administrators to verify and manage lawyer profiles.

DESIGN PLAN	LegalEase	DOCUMENT	Review 1+2+3
EFFECTIVE DATE	27/12/2025	VERSION	1.0

- The system supports automatic notifications and email delivery related to appointments and payments.
- The system records and displays reviews after appointment completion.
- The system allows administrators to manage legal articles and community questions.

3.5 Non-Functional Requirements

- The system must ensure the security of user information and transaction data.
- The interface must be user-friendly, clear, and easy to use.
- The system must provide stable performance and fast response times.
- The system must ensure scalability for future expansion.
- The system must operate continuously with minimal downtime.

3.6 Assumptions & Constraints

Assumptions:

- Users have a stable Internet connection.
- Lawyers provide accurate and truthful professional information.

Constraints:

- The system is deployed as a web application.
- Payment processing depends on third-party payment gateways.
- The system scope does not include handling real-world legal dispute resolution.

REVIEW 2: SYSTEM DESIGN & DATABASE MODELING

4. eProject Design

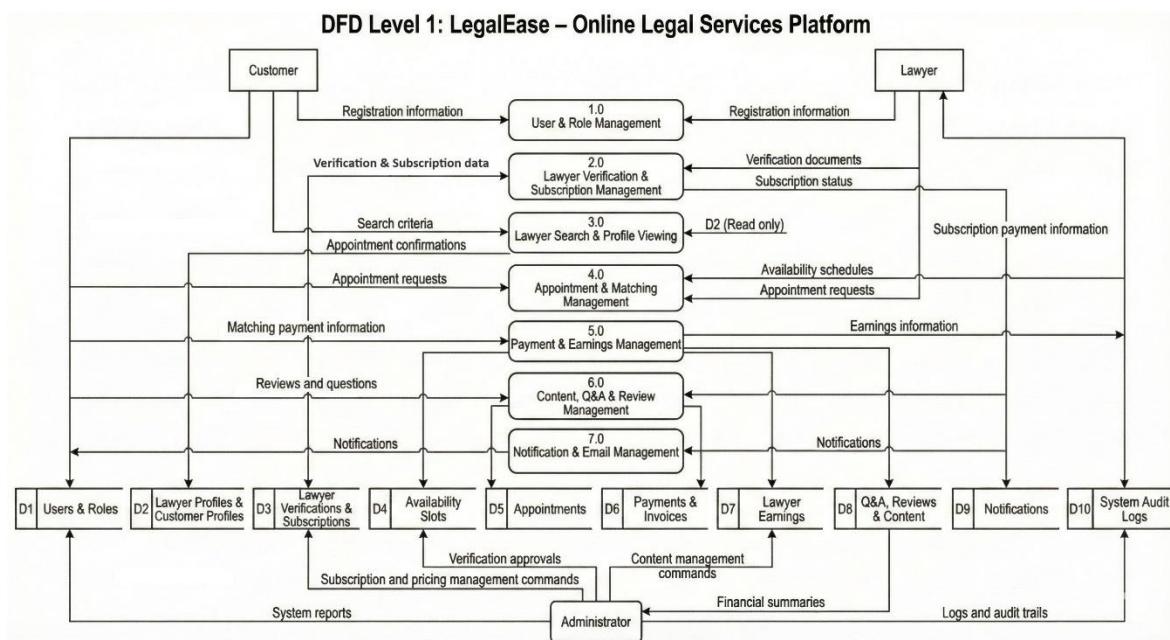
4.1 Data Flow Diagram (DFD)

DFD Level 0 – Context Diagram of LegalEase System

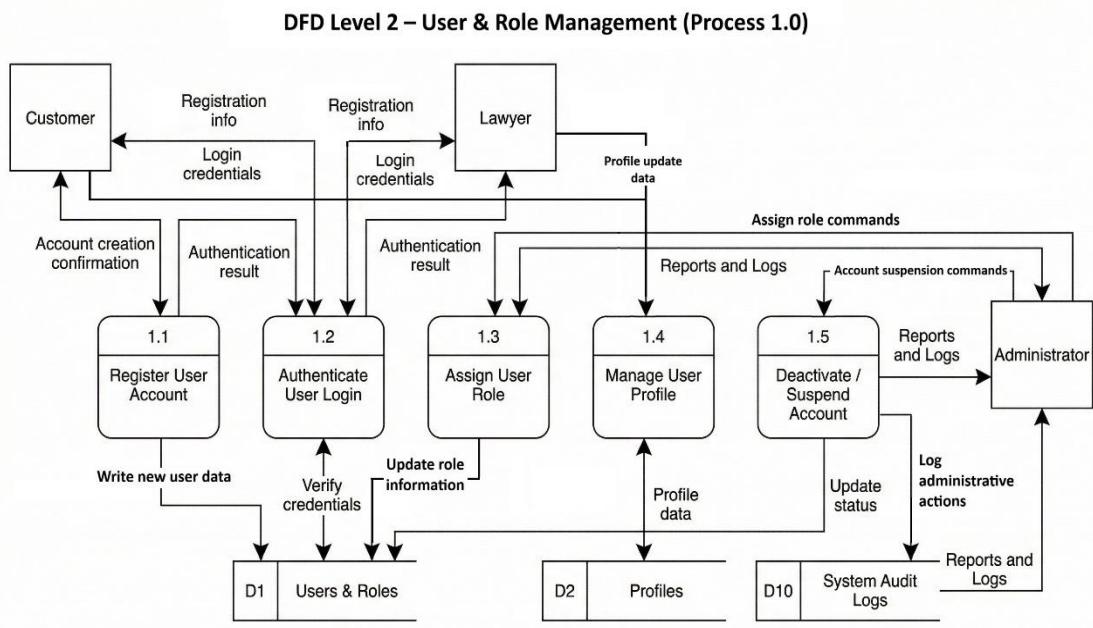
Context Diagram (DFD Level 0) - LegalEase System



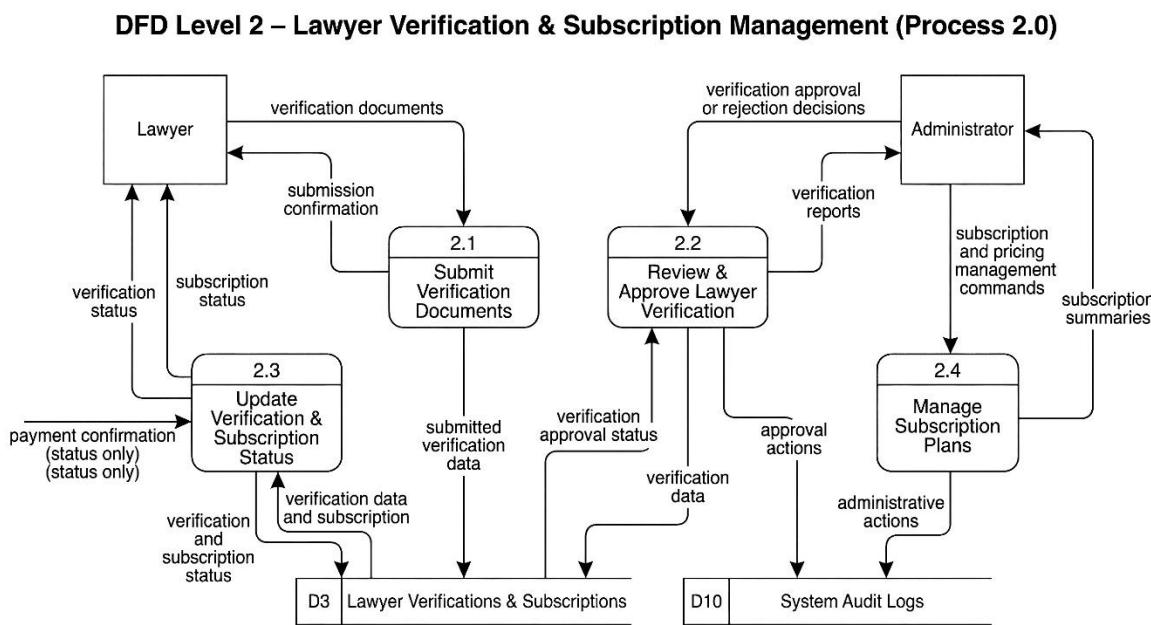
DFD Level 1 – Functional Overview of LegalEase System



DFD Level 2 – User & Role Management (Process 1.0)

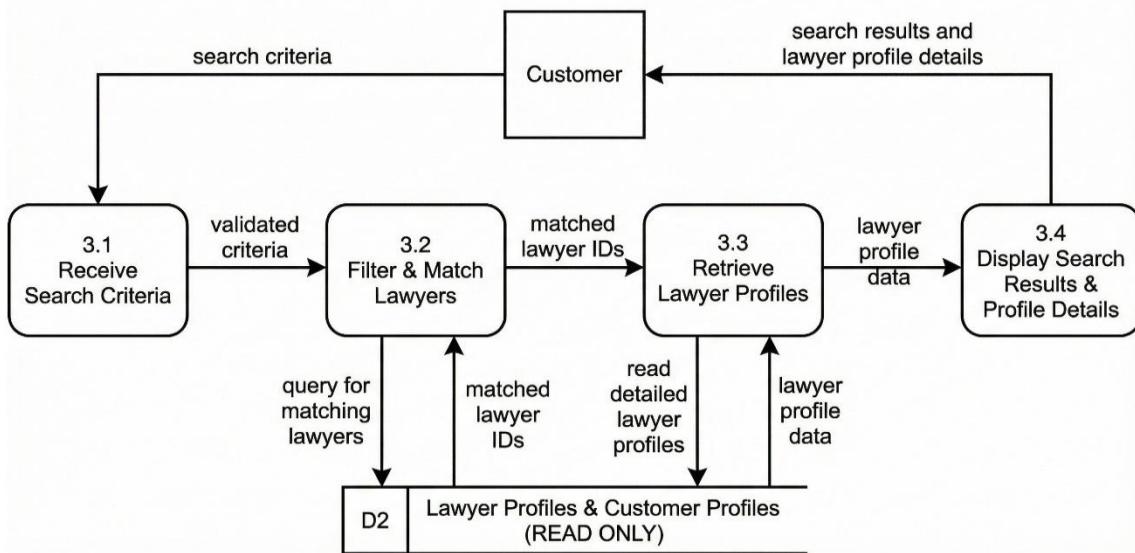


DFD Level 2 – Lawyer Verification & Subscription Management (Process 2.0)



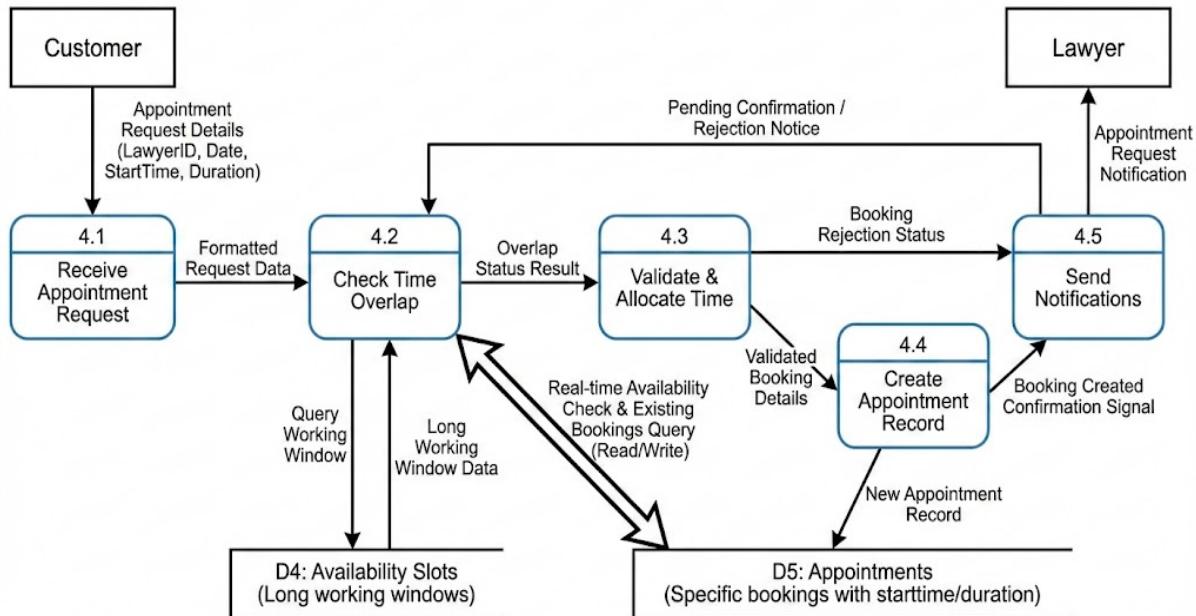
DFD Level 2 – Lawyer Search & Profile Viewing (Process 3.0)

DFD Level 2 – Lawyer Search & Profile Viewing (Process 3.0)



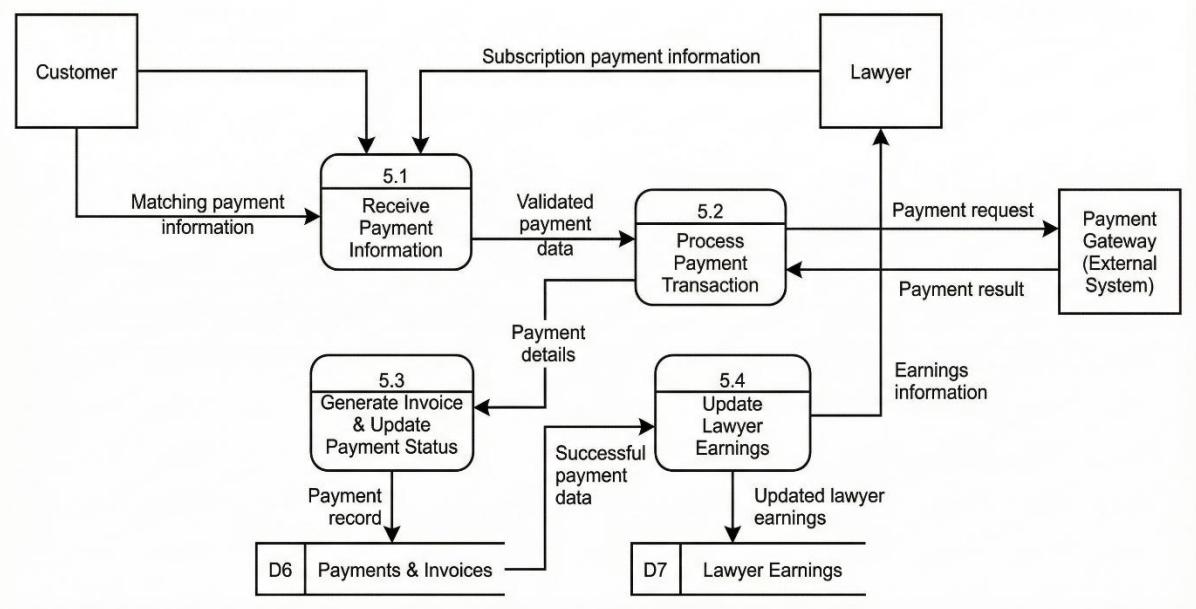
DFD Level 2 – Appointment & Matching Management (Process 4.0)

DFD Level 2 - Process 4.0: Appointment & Matching Management



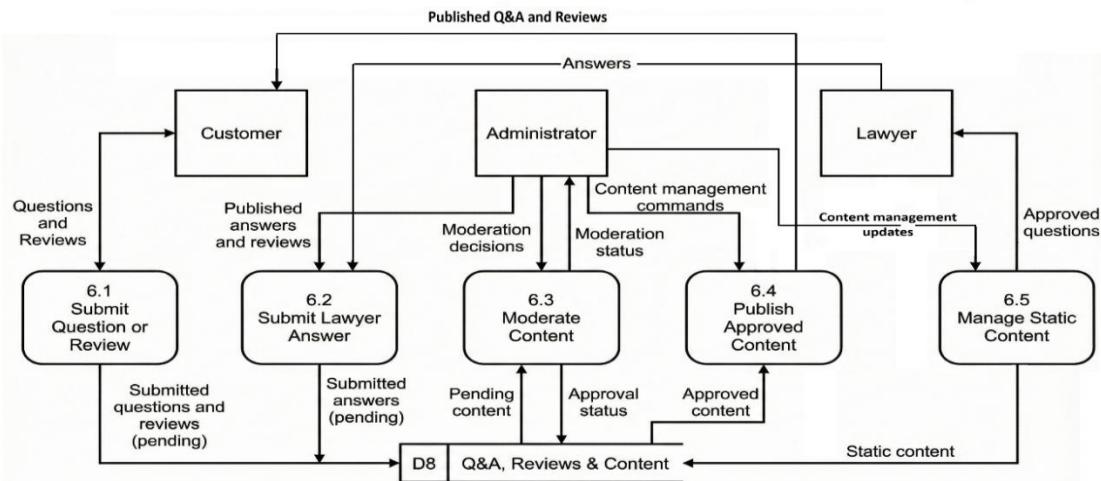
DFD Level 2 – Payment & Earnings Management (Process 5.0)

DFD Level 2 – Payment & Earnings Management (Process 5.0)



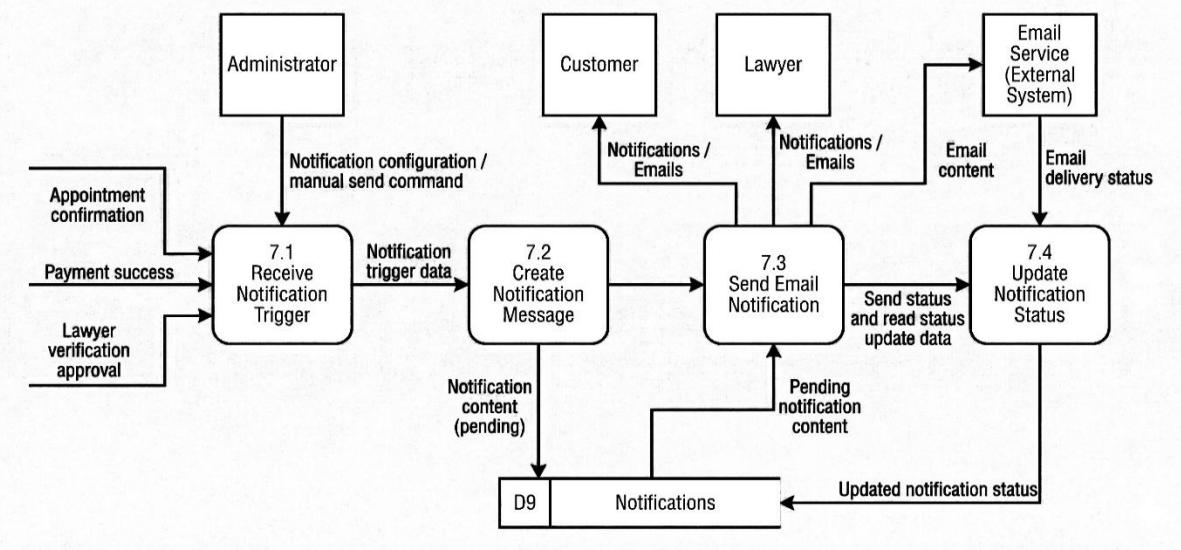
DFD Level 2 – Content, Q&A & Review Management (Process 6.0)

DFD Level 2 – Content, Q&A & Review Management (Process 6.0)



DFD Level 2 – Notification & Email Management (Process 7.0)

DFD Level 2 – Notification & Email Management (Process 7.0)



4.2 Database Design

This section describes in detail the data entities, data types, and system constraints to ensure the integrity of the LegalEase database.

DESIGN PLAN	LegalEase	DOCUMENT	Review 1+2+3
EFFECTIVE DATE	27/12/2025	VERSION	1.0

GROUP 1: AUTHORIZATION

This group manages access levels within the system.

Table 1: Roles (Authorization)

Column Name	Data Type	Constraints	Description
RoleID	INT	PK	Role identifier (1–Admin, 2–Lawyer, 3–Customer)
RoleName	VARCHAR(50)	NOT NULL	Role name

Table 2: Users (User Accounts)

Column Name	Data Type	Constraints	Description
userid	INT	PK, AI	User unique identifier
email	VARCHAR(100)	UNIQUE, NOT NULL	Login email
password	VARCHAR(255)	NOT NULL	Encrypted password
roleid	INT	FK → Roles(RoleID)	User role
isactive	BOOLEAN	DEFAULT TRUE	Account status

GROUP 2: CORE AUTH & PROFILES

Table 3: Lawyer_Profiles (Professional Profiles)

Column Name	Data Type	Constraints	Description
lawyerid	INT	PK, FK → Users(UserID)	Lawyer ID
fullname	VARCHAR(100)	NOT NULL	Lawyer full name
phonenumer	VARCHAR(20)		phonenumer
experienceyears	INT		Years of experience
bio	TEXT		Personal biography
profileimage	VARCHAR(255)		Profile image
isverified	BOOLEAN	DEFAULT FALSE	Verification status
ispro	BOOLEAN	DEFAULT FALSE	Priority account

DESIGN PLAN	LegalEase	DOCUMENT	Review 1+2+3
EFFECTIVE DATE	27/12/2025	VERSION	1.0

Table 4: Customer_Profiles (Customer Profiles)

Column Name	Data Type	Constraints	Description
customerid	INT	PK, FK → Users(userID)	Customer ID
fullname	VARCHAR(100)	NOT NULL	Customer full name
phonenumbers	VARCHAR(20)		Phone number

Table 5: Lawyer_Achievements (Qualifications & Awards)

Column Name	Data Type	Constraints	Description
achieveid	INT	PK, AI	Achievement ID
lawyerid	INT	FK → Lawyer_Profiles(LawyerID)	Associated lawyer
title	VARCHAR(255)	NOT NULL	Degree / certificate / award title

Table 6: Lawyer_Verifications (Initial Verification Records)

Column Name	Data Type	Constraints	Description
verifyid	INT	PK, AI	Verification ID
lawyerid	INT	FK → Lawyer_Profiles(LawyerID)	Registered lawyer
idcardnumber	VARCHAR(20)	NOT NULL	National ID number
licensenumbers	VARCHAR(50)	NOT NULL	Lawyer license number
documentimage	VARCHAR(255)	NOT NULL	Supporting document image
status	VARCHAR(20)	NOT NULL, DEFAULT 'Pending'	Current status (Pending / Approved / Rejected)

DESIGN PLAN	LegalEase	DOCUMENT	Review 1+2+3
EFFECTIVE DATE	27/12/2025	VERSION	1.0

GROUP 3: LOCATION & SPECIALIZATION (SEARCH & MAP)

Table 7: Locations (Geographic Areas)

Column Name	Data Type	Constraints	Description
locid	INT	PK, AI	Location identifier
cityname	VARCHAR(100)	NOT NULL	City / province name

Table 8: Lawyer_Offices (Office Coordinates)

Column Name	Data Type	Constraints	Description
officeid	INT	PK, AI	Office ID
lawyerid	INT	FK → Lawyer_Profiles(LawyerID)	Lawyer
locid	INT	FK → Locations(LocID)	Location
latitude	DECIMAL(10,8)		Latitude
longitude	DECIMAL(11,8)		Longitude
addressdetail	VARCHAR(255)	NOT NULL	Detailed address

Table 9: Specializations (Legal Fields)

Column Name	Data Type	Constraints	Description
specid	INT	PK, AI	Specialization identifier
specname	VARCHAR(100)	NOT NULL	Legal specialization name

Table 10: Lawyer_Specialties (Many-to-Many Relationship)

Column Name	Data Type	Constraints	Description
lawyerid	INT	FK → Lawyer_Profiles(LawyerID)	Lawyer
specid	INT	FK → Specializations(SpecID)	Specialization

DESIGN PLAN	LegalEase	DOCUMENT	Review 1+2+3
EFFECTIVE DATE	27/12/2025	VERSION	1.0

GROUP 4: APPOINTMENT & MATCHING (CORE TRANSACTIONS)

Table 11: Availability_Slots (Available Time Slots)

Column Name	Data Type	Constraints	Description
slotid	INT	PK, AI	Time slot ID
lawyerid	INT	FK → Lawyer_Profiles(LawyerID)	Lawyer
availabledate	DATE	NOT NULL	Available date
starttime	TIME	NOT NULL	Start time
endtime	TIME	NOT NULL	End time
isavailable	BOOLEAN	DEFAULT TRUE	Busy status

Table 12: Appointments (Appointments – Matching Point)

Column Name	Data Type	Constraints	Description
appointid	INT	PK, AI	Appointment ID
slotid	INT	FK → Availability_Slots(SlotID)	Time slot
customerid	INT	FK → Customer_Profiles(CustomerID)	Customer
lawyerid	INT	FK → Lawyer_Profiles(LawyerID)	Lawyer
packagename	VARCHAR(100)	NOT NULL	Service package name(e.g.,
duration	INT	DEFAULT 60	Duration of the appointment in minutes (e.g., 30, 60, 120)
starttime	TIME	NOT NULL	start time
note	TEXT	NOT NULL	description of the legal issue (required)
commissionfee	DECIMAL(10,2)		Commission fee
status	VARCHAR(20)	NOT NULL	Appointment status

DESIGN PLAN	LegalEase	DOCUMENT	Review 1+2+3
EFFECTIVE DATE	27/12/2025	VERSION	1.0

GROUP 5: BUSINESS MODEL & FINANCE

Table 13: Subscription_Plans (Subscription Packages)

Column Name	Data Type	Constraints	Description
planid	INT	PK, AI	Subscription plan ID
planname	VARCHAR(100)	NOT NULL	Plan name (Monthly, Yearly, VIP)
price	DECIMAL(10,2)	NOT NULL	Plan price
features	TEXT		Included features

Table 14: Lawyer_Subscriptions (Subscription Status)

Column Name	Data Type	Constraints	Description
subid	INT	PK, AI	Subscription ID
lawyerid	INT	FK → Lawyer_Profiles(LawyerID)	Lawyer
planid	INT	FK → Subscription_Plans(PlanID)	Subscription plan
startdate	DATETIME	NOT NULL	Start date
enddate	DATETIME	NOT NULL	Expiration date
status	VARCHAR(20)	NOT NULL	Active / Expired

DESIGN PLAN	LegalEase	DOCUMENT	Review 1+2+3
EFFECTIVE DATE	27/12/2025	VERSION	1.0

Table 15: Payments_Invoices (Invoices & Transactions)

Column Name	Data Type	Constraints	Description
invid	INT	PK, AI	Invoice ID
userid	INT	FK → Users(UserID)	Payer
appointid	INT	FK → Appointments(AppointID), NULL	Matching fee
subid	INT	FK → Lawyer_Subscriptions(SubID), NULL	Subscription fee
transactionno	VARCHAR(100)	UNIQUE	Payment gateway transaction code
paymentmethod	VARCHAR(50)	NOT NULL	ATM / Credit Card / E-Wallet
amount	DECIMAL(10,2)	NOT NULL	Amount
status	VARCHAR(20)	NOT NULL	Pending / Success / Failed
createdat	DATETIME	NOT NULL	Invoice creation time

Table 16: Lawyer_Earnings (Financial Statistics)

Column Name	Data Type	Constraints	Description
earnid	INT	PK, AI	Earnings record ID
lawyerid	INT	FK → Lawyer_Profiles(LawyerID)	Lawyer
totalmatches	INT	DEFAULT 0	Total successful appointments
totalcommissionpaid	DECIMAL(12,2)	DEFAULT 0	Total commission paid

DESIGN PLAN	LegalEase	DOCUMENT	Review 1+2+3
EFFECTIVE DATE	27/12/2025	VERSION	1.0

GROUP 6: AI & COMMUNITY (USER SUPPORT)

Table 17: Legal_Knowledge_Base (AI Knowledge Library)

Column Name	Data Type	Constraints	Description
lawid	INT	PK, AI	Unique identifier for each legal segment (Chunk ID).
specid	INT	FK → Specializations(SpecID)	Link to the specific legal field.
lawname	VARCHAR(255)	NOT NULL	Name of the original legal document (e.g., "Civil Code 2015").
title	VARCHAR(255)	NOT NULL	Specific title of the chunk (e.g., "Article 1", "Chapter II").

Table 18: Service_Price_Ranges (Reference Price Ranges)

Column Name	Data Type	Constraints	Description
priceid	INT	PK, AI	Price range ID
specid	INT	FK → Specializations(SpecID)	Legal specialization
minprice	DECIMAL(10,2)	NOT NULL	Minimum price
maxprice	DECIMAL(10,2)	NOT NULL	Maximum price

Table 19: AI_Chat_History (Chat History)

Column Name	Data Type	Constraints	Description
chatid	INT	PK, AI	Chat session ID
userid	INT	FK → Users(UserID)	User
question	TEXT	NOT NULL	User question
answer	TEXT		AI response

DESIGN PLAN	LegalEase	DOCUMENT	Review 1+2+3
EFFECTIVE DATE	27/12/2025	VERSION	1.0

Table 20: QA_Questions (Community Questions)

Column Name	Data Type	Constraints	Description
questionid	INT	PK, AI	Question ID
customerid	INT	FK → Customer_Profiles(CustomerID)	Question author
title	varchar(255)	NOT NULL	Q&a title
content	TEXT	NOT NULL	Question content
isapproved	BOOLEAN	DEFAULT FALSE	Approval status

Table 21: QA_Answers (Public Legal Advice by Lawyers)

Column Name	Data Type	Constraints	Description
answerid	INT	PK, AI	Answer ID
questionid	INT	FK → QA_Questions(QuestionID)	Question
lawyerid	INT	FK → Lawyer_Profiles(LawyerID)	Lawyer
content	TEXT	NOT NULL	Answer content
isapproved	BOOLEAN	DEFAULT FALSE	Approval status

GROUP 7: NOTIFICATIONS & EMAIL

Table 22: Notifications (Automated Notification & Email Queue)

Column Name	Data Type	Constraints	Description
notifid	INT	PK, AI	Notification ID
userid	INT	FK → Users(UserID)	Recipient
message	TEXT	NOT NULL	Notification message
type	VARCHAR(20)	NOT NULL	System / Email / All
issentemail	BOOLEAN	DEFAULT FALSE	Email sent status
sentat	DATETIME		Sent timestamp
isread	BOOLEAN	DEFAULT FALSE	Read status

DESIGN PLAN	LegalEase	DOCUMENT	Review 1+2+3
EFFECTIVE DATE	27/12/2025	VERSION	1.0

GROUP 8: INTERACTION & ADMINISTRATION

Table 23: Reviews (Post-Matching Reviews)

Column Name	Data Type	Constraints	Description
revid	INT	PK, AI	Review identifier
appointid	INT	FK → Appointments(AppointID)	Related appointment
rating	INT	NOT NULL	Star rating (1–5)
title	VARCHAR(255)	NULLABLE	Review title
comment	TEXT	NULLABLE	Review comment
relationship	VARCHAR(50)	DEFAULT 'consulted'	Relationship with lawyer (consulted hired)

Table 24: Content_Management (Static Content Management)

Column Name	Data Type	Constraints	Description
contentid	INT	PK, AI	Content ID
type	VARCHAR(50)	NOT NULL	FAQ / Guide / News
title	VARCHAR(255)	NOT NULL	Content title
body	TEXT	NOT NULL	Content body

Table 25: System_Audit_Logs (Administrator Audit Logs)

Column Name	Data Type	Constraints	Description
logid	INT	PK, AI	Log ID
adminid	INT	FK → Users(UserID)	Acting administrator
action	VARCHAR(255)	NOT NULL	Action performed
timestamp	DATETIME	NOT NULL	Action timestamp

DESIGN PLAN	LegalEase	DOCUMENT	Review 1+2+3
EFFECTIVE DATE	27/12/2025	VERSION	1.0

4.3 Entity–Relationship Diagram (ERD)

4.3.1 Overview

The Entity–Relationship Diagram (ERD) describes the logical structure of the database for the LegalEase – Online Legal Services Platform.

The ERD illustrates the main entities, their attributes, and the relationships between them, ensuring:

- Data consistency
- Referential integrity
- Future scalability and system maintainability

The LegalEase system is designed with a total of 25 data tables, fully representing core business processes such as user management, lawyer verification, search and matching, payment processing, community content, and system notifications.

4.3.2 Detailed Relationship Descriptions

Entity A	Entity B	Cardinality	Relationship Description
GROUP 1 & 2			
Roles	Users	1 : N	One role (Admin, Lawyer, Customer) can be assigned to multiple users.
Users	Lawyer_Profiles	1 : 1	Each user account with a "Lawyer" role has exactly one professional profile.

DESIGN PLAN LegalEase **DOCUMENT** Review 1+2+3

EFFECTIVE DATE 27/12/2025 **VERSION** 1.0

Entity A	Entity B	Cardinality	Relationship Description
Users	Customer_Profiles	1 : 1	Each user account with a "Customer" role has exactly one personal profile.
Lawyer_Profiles	Achievements	1 : N	A lawyer can have multiple academic or professional achievements/awards.
Lawyer_Profiles	Verifications	1 : 1	A lawyer has a single verification record for administrative approval.
GROUP 3			
Lawyer_Profiles	Lawyer_Offices	1 : N	A lawyer can manage or be associated with multiple office locations.

DESIGN PLAN

LegalEase

DOCUMENT**Review 1+2+3****EFFECTIVE DATE**

27/12/2025

VERSION

1.0

Entity A	Entity B	Cardinality	Relationship Description
Locations	Lawyer_Offices	1 : N	A specific city or province can host offices for many different lawyers.
Lawyer_Profiles	Specialties	1 : N	A lawyer can register for multiple areas of law (via N-N relationship).
Specializations	Specialties	1 : N	A specific legal field (Criminal, Civil, etc.) can be handled by multiple lawyers.
GROUP 4			
Lawyer_Profiles	Availability_Slots	1 : N	A lawyer sets up multiple time slots for customers to book consultations.

DESIGN PLAN LegalEase **DOCUMENT** Review 1+2+3

EFFECTIVE DATE 27/12/2025 **VERSION** 1.0

Entity A	Entity B	Cardinality	Relationship Description
Availability_Slots	Appointments	1 : N	A single available time slot on a given date may contain multiple consultation appointments from customers.
Customer_Profiles	Appointments	1 : N	A customer can book multiple legal consultation appointments.
Lawyer_Profiles	Appointments	1 : N	A lawyer can accept and manage appointments from various customers.
GROUP 5			
Lawyer_Profiles	Subscriptions	1 : N	A lawyer can subscribe to or renew service plans over time.

DESIGN PLAN LegalEase **DOCUMENT** Review 1+2+3

EFFECTIVE DATE 27/12/2025 **VERSION** 1.0

Entity A	Entity B	Cardinality	Relationship Description
Sub_Plans	Subscriptions	1 : N	A subscription plan (Monthly, Yearly, VIP) can be purchased by many lawyers.
Users	Payments_Invoices	1 : N	A user can generate multiple payment invoices for matching fees or subscriptions.
Appointments	Payments_Invoices	1 : 1	Each consultation appointment is linked to a single payment invoice.
Subscriptions	Payments_Invoices	1 : 1	Each subscription transaction is linked to a single payment invoice.
Lawyer_Profiles	Lawyer_Earnings	1 : 1	Each lawyer has one record summarizing total matches and commission paid.

DESIGN PLAN	LegalEase	DOCUMENT	Review 1+2+3
EFFECTIVE DATE	27/12/2025	VERSION	1.0

Entity A	Entity B	Cardinality	Relationship Description
GROUP 6			
Specializations	Legal_Knowledge	1 : N	One legal specialization contains multiple legal chunks/segments for the AI knowledge base.
Specializations	Price_Ranges	1 : 1	Each legal specialization has a defined reference price range for customers.
Users	AI_Chat_History	1 : N	A user can have multiple chat sessions with the AI legal assistant.
Customer_Profiles	QA_Questions	1 : N	A customer can post multiple public questions on the community forum.

DESIGN PLAN	LegalEase	DOCUMENT	Review 1+2+3
EFFECTIVE DATE	27/12/2025	VERSION	1.0

Entity A	Entity B	Cardinality	Relationship Description
QA_Questions	QA_Answers	1 : N	A community question can receive multiple answers from different lawyers.
Lawyer_Profiles	QA_Answers	1 : N	A lawyer can provide professional advice on various customer questions.
GROUP 7 & 8			
Users	Notifications	1 : N	A user can receive multiple system notifications or automated emails.
Appointments	Reviews	1 : 1	Each completed appointment corresponds to exactly one quality review.

DESIGN PLAN	LegalEase	DOCUMENT	Review 1+2+3
EFFECTIVE DATE	27/12/2025	VERSION	1.0

Entity A	Entity B	Cardinality	Relationship Description
Users (Admin)	Audit_Logs	1 : N	An administrator can perform and record multiple system management actions.

4.3.3 Data Integrity Constraints

To ensure accurate and secure system operation and reflect the dynamic booking logic, the following integrity constraints are applied:

- **Foreign Key Constraints:** Records cannot be created in a child table if the referenced foreign key does not exist in the parent table. For instance, an Appointment record cannot be created if the SlotID, LawyerID, or CustomerID is invalid or missing from their respective parent tables.
- **Deletion Constraints (ON DELETE CASCADE):** To prevent orphaned data, when a user account (Users table) is deleted, the related records in Lawyer_Profiles or Customer_Profiles are automatically removed.
- **Unique Constraints:** Each transaction code (TransactionNo) in the Payments_Invoices table must be unique to ensure accurate payment reconciliation and prevent duplicate billing processes.
- **Business Rules Constraints:**
 - **Dynamic Time Overlap Prevention:** An Availability_Slot represents a lawyer's full-day availability. The system allows multiple Appointments within a single slot, provided that their time ranges (calculated as

DESIGN PLAN	LegalEase	DOCUMENT	Review 1+2+3
EFFECTIVE DATE	27/12/2025	VERSION	1.0

starttime + duration) do not overlap with any existing "Confirmed" or "Pending" appointments.

- **Automatic Availability Recalculation:** When an appointment is set to "Cancelled" or "Rejected," the system immediately excludes that record from time-gap calculations, effectively releasing the time slot back into the "Free" pool for other customers to book.
- **Verified Search Visibility:** Lawyers are only visible and selectable in search results if their IsVerified status is set to true (approved by the administrator).
- **Review Eligibility:** Quality reviews can only be submitted for an appointment once its status has been officially updated to Completed.

4.3.4 Conclusion

The Entity-Relationship Diagram (ERD) of the LegalEase system fully reflects a sophisticated business data model tailored for a modern online lawyer-client matching platform. By transitioning to a dynamic time-slotting mechanism, this design ensures high flexibility for both lawyers and customers, allowing for duration-based bookings within a single daily availability window.

This architectural approach guarantees: * Functional Clarity: A clear separation between professional profiles, core transactions, and financial management. * Advanced Scalability: Effectively supports system growth and high-concurrency booking requests without data redundancy. * Operational Integrity: Optimizes query performance and maintains strict data integrity through real-time overlap validation and automated schedule recalculations during real-world operations.

In conclusion, the LegalEase database model is robustly structured to handle the complexities of legal service matching while maintaining a seamless and reliable user experience.

DESIGN PLAN

LegalEase

DOCUMENT

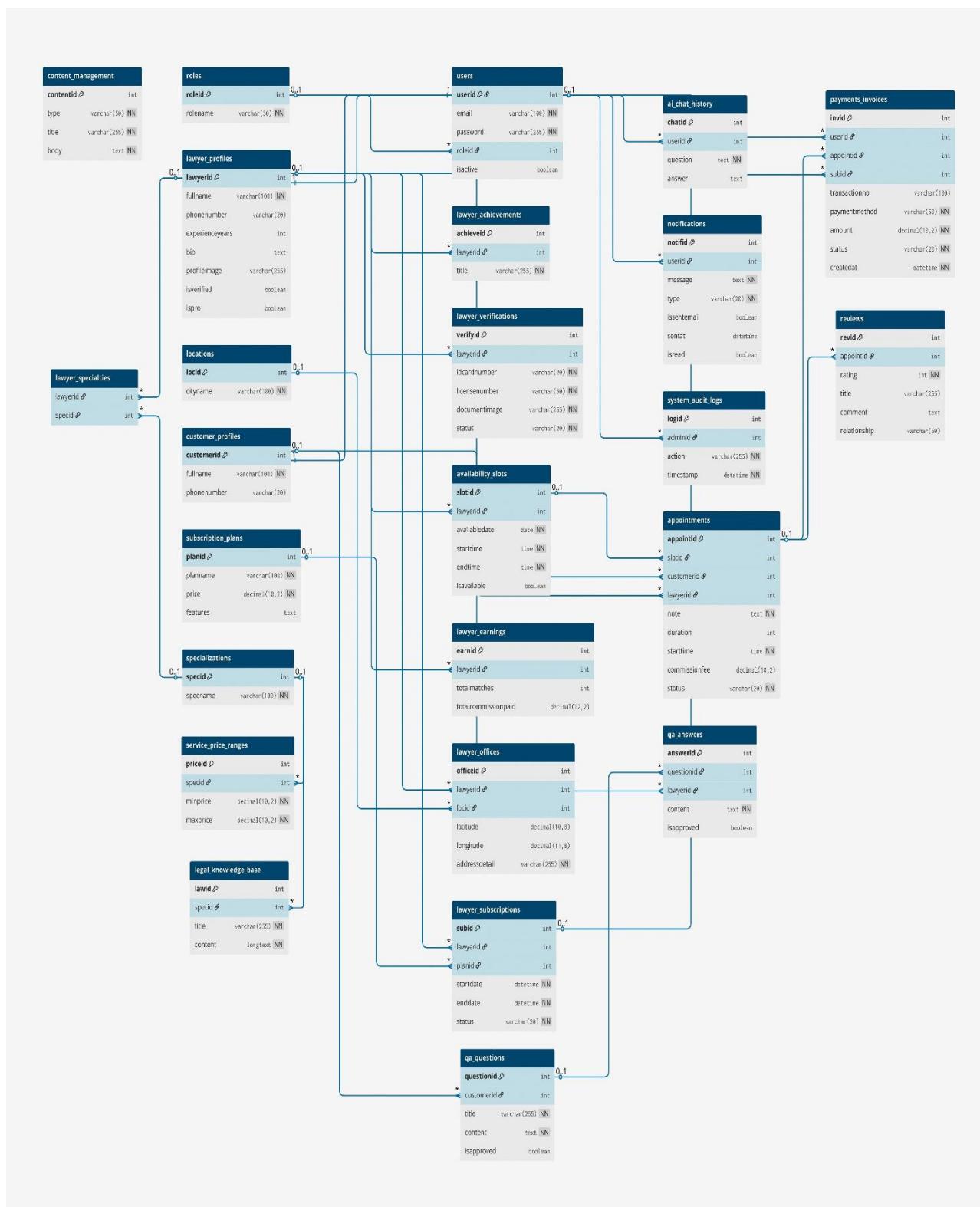
Review 1+2+3

EFFECTIVE DATE

27/12/2025

VERSION

1.0



DESIGN PLAN

LegalEase

DOCUMENT

Review 1+2+3

EFFECTIVE DATE

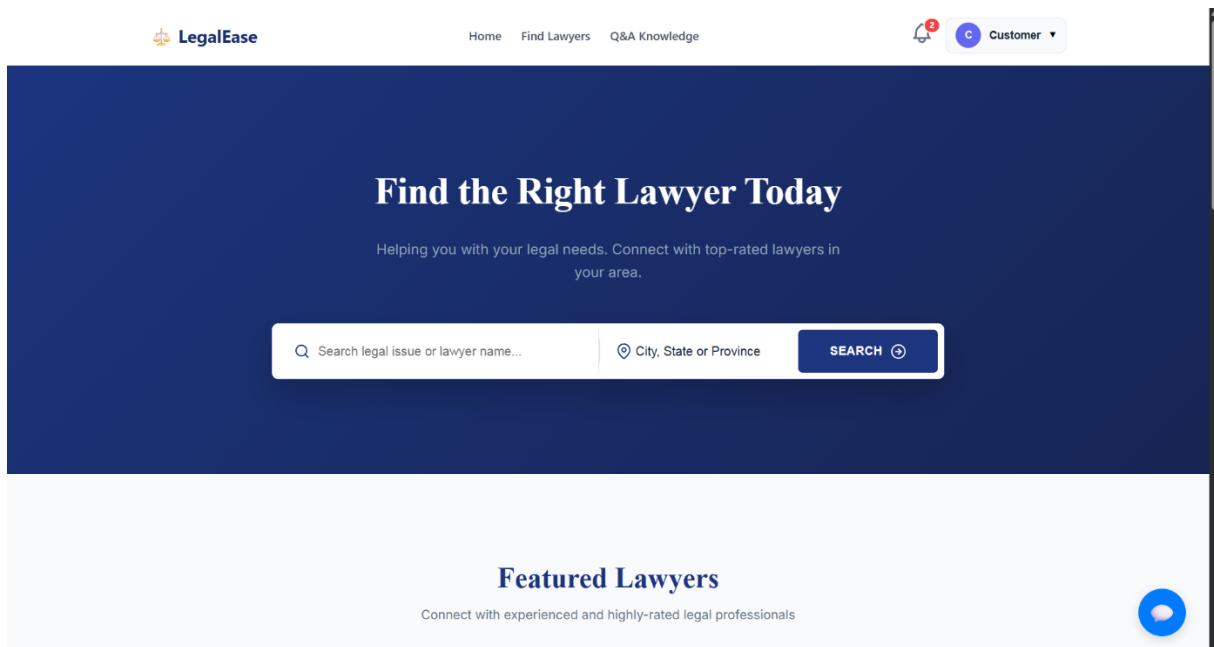
27/12/2025

VERSION

1.0

Review 3

HomePage



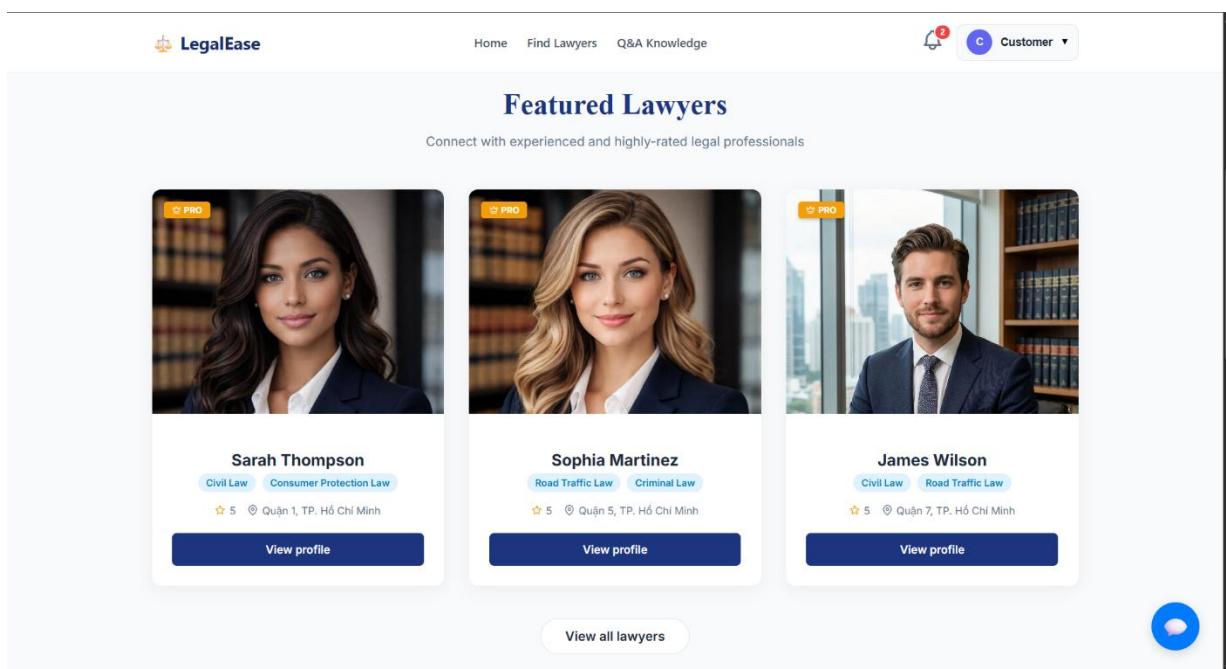
Find the Right Lawyer Today

Helping you with your legal needs. Connect with top-rated lawyers in your area.

Search legal issue or lawyer name... City, State or Province SEARCH

Featured Lawyers

Connect with experienced and highly-rated legal professionals



Featured Lawyers

Connect with experienced and highly-rated legal professionals

Sarah Thompson
Civil Law Consumer Protection Law
★ 5 ⚖ Quận 1, TP. Hồ Chí Minh

Sophia Martinez
Road Traffic Law Criminal Law
★ 5 ⚖ Quận 5, TP. Hồ Chí Minh

James Wilson
Civil Law Road Traffic Law
★ 5 ⚖ Quận 7, TP. Hồ Chí Minh

View profile

View profile

View profile

View all lawyers

DESIGN PLAN	LegalEase	DOCUMENT	Review 1+2+3
EFFECTIVE DATE	27/12/2025	VERSION	1.0

The screenshot shows the LegalEase website homepage. At the top, there is a navigation bar with the LegalEase logo, Home, Find Lawyers, Q&A Knowledge, and a Customer support icon. Below the navigation is a section titled "Legal News & Insights" with a sub-instruction "Stay updated with the latest legal news and verified notices". Two news cards are displayed: one about a 120kg mì tươi trộn hàn the (cold noodle salad) and another about LegalEase launching a new platform. The footer contains "Quick Access" links (Find Top Lawyers, Legal Q&A & Consultation, Client Login, For Lawyers), "Supported Locations" (Lawyers in Quận 1, TP. Hồ Chí Minh; Quận 2, TP. Hồ Chí Minh; Quận 3, TP. Hồ Chí Minh; Quận 4, TP. Hồ Chí Minh; Quận 5, TP. Hồ Chí Minh), "Practice Areas" (Civil Law Lawyers, Consumer Protection Law Lawyers, Marriage and Family Law Lawyers, Road Traffic Law Lawyers, Residence Law Lawyers, Civil Status Law Lawyers), and "About LegalEase" links (About LegalEase, Careers, Contact Support). A video player icon is also present in the footer.

About Us

The screenshot shows the "About Us" page of the LegalEase website. The top navigation bar is identical to the homepage. The main content features a large image of a wooden gavel and several thick, antique-looking law books. To the left of the image, the text reads: "LegalEase — Elevating the Digital Legal Service Experience. A centralized platform helping you find the right legal experts, view verified profiles, and book appointments in seconds." Below this is a "Explore Now" button. To the right of the image, the text "Why was LegalEase born?" is followed by a paragraph explaining the platform's mission to provide a more efficient and transparent legal service. A video player icon is located in the bottom right corner of the content area.

DESIGN PLAN

LegalEase

DOCUMENT

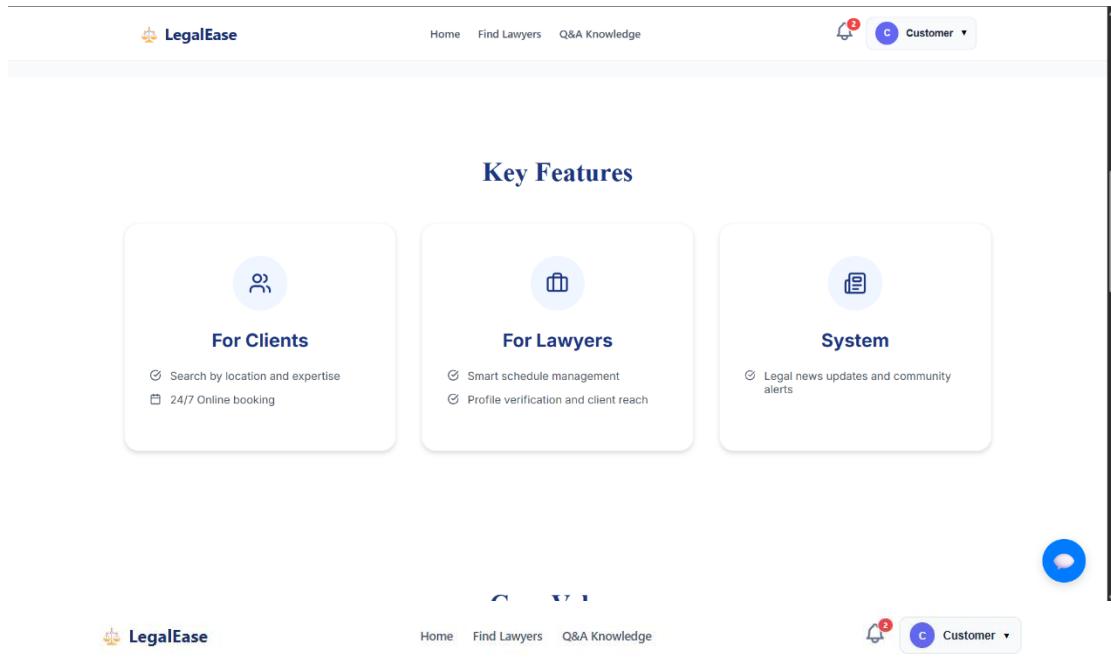
Review 1+2+3

EFFECTIVE DATE

27/12/2025

VERSION

1.0



The screenshot shows the LegalEase website's homepage. At the top, there is a navigation bar with the LegalEase logo, a search icon, and a 'Customer' dropdown. Below the navigation, the page title 'Key Features' is centered. Three rounded rectangular boxes are displayed, each representing a different aspect of the service:

- For Clients** (Icon: Person):
 - Search by location and expertise
 - 24/7 Online booking
- For Lawyers** (Icon: Briefcase):
 - Smart schedule management
 - Profile verification and client reach
- System** (Icon: Document):
 - Legal news updates and community alerts



The screenshot shows the 'Core Values' section of the LegalEase website. The page title 'Core Values' is centered above three rounded rectangular boxes:

- Verified & Trusted** (Icon: Shield):

Lawyer profiles are strictly moderated by administrators to ensure integrity.
- Superior Performance** (Icon: Refresh):

Powerful system operation with fast loading speeds and smooth workflows.
- Absolute Security** (Icon: Lock):

Applying secure authentication measures to protect data privacy.



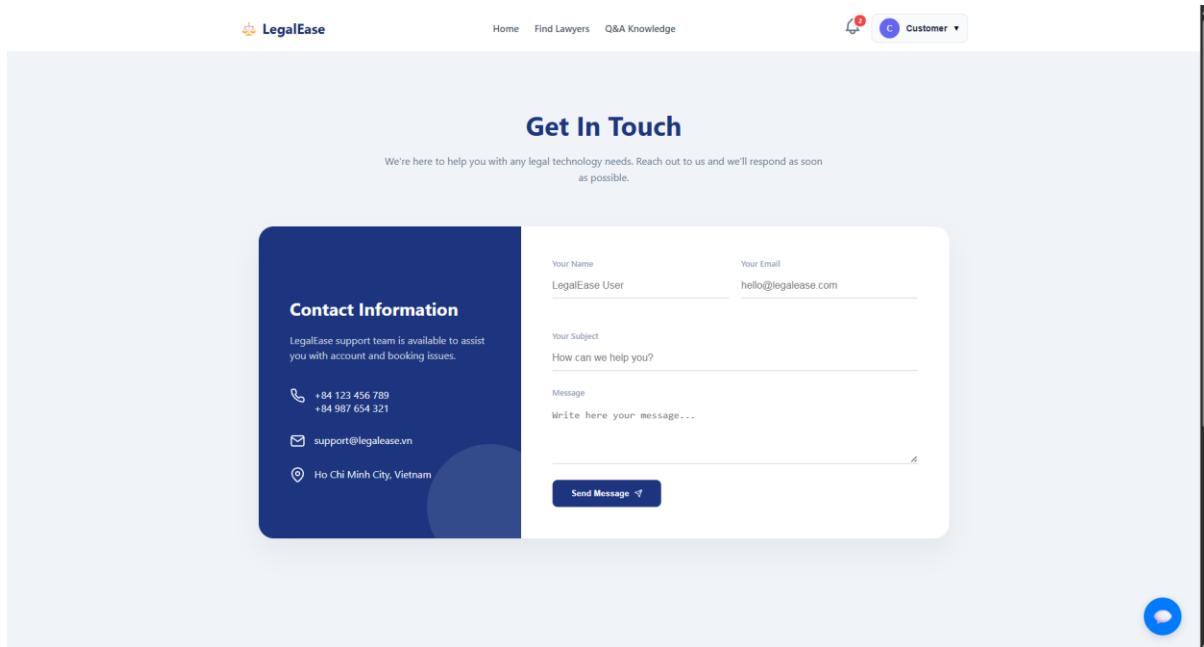
A dark blue horizontal bar containing four key statistics:

- 100+** Verified Professional Lawyers
- 1000+** Successful Appointments
- 20+** Legal Specializations Supported
- 24/7** System Always Available

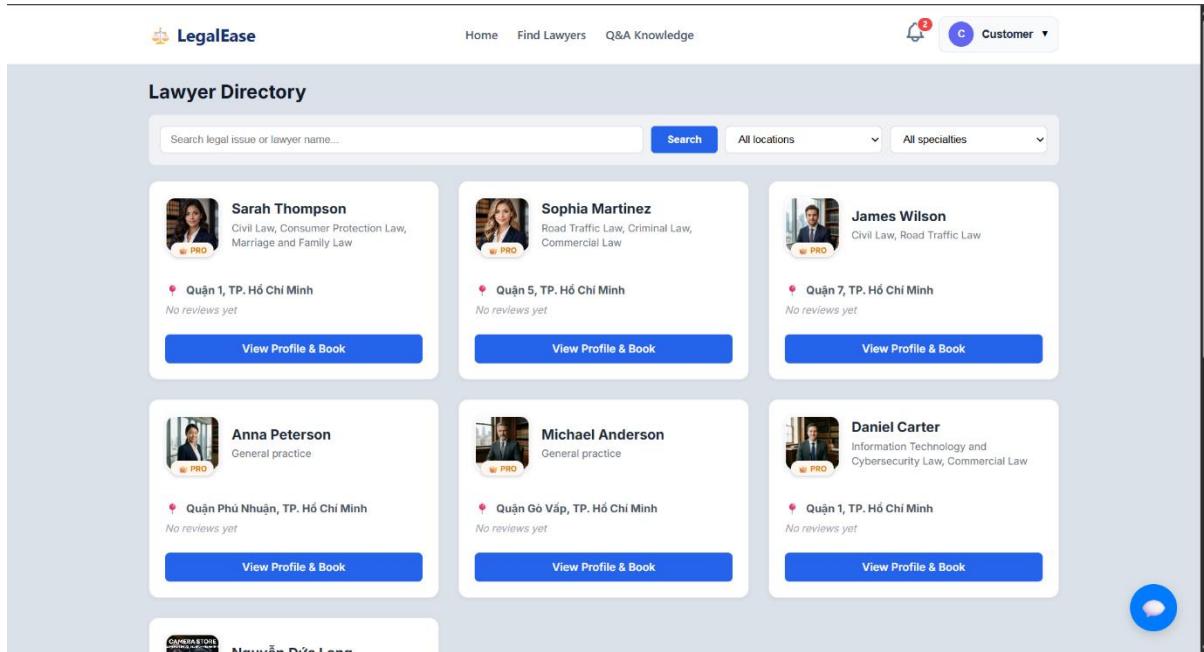


DESIGN PLAN	LegalEase	DOCUMENT	Review 1+2+3
EFFECTIVE DATE	27/12/2025	VERSION	1.0

Contacts

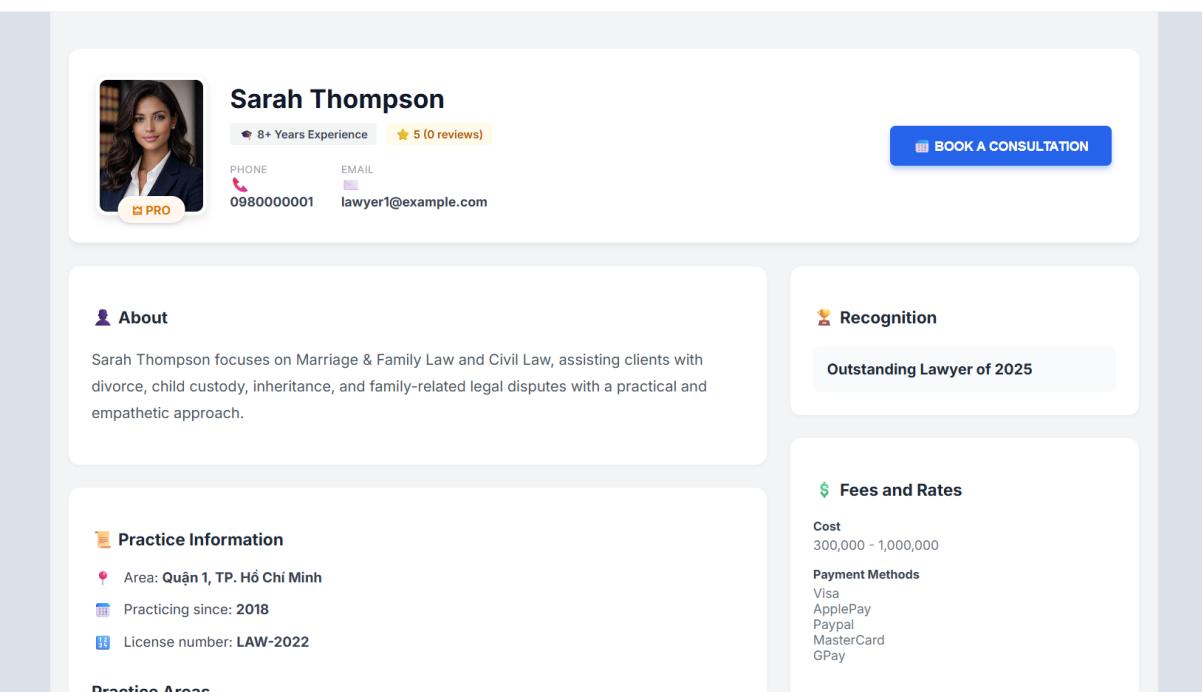


Lawyerlist



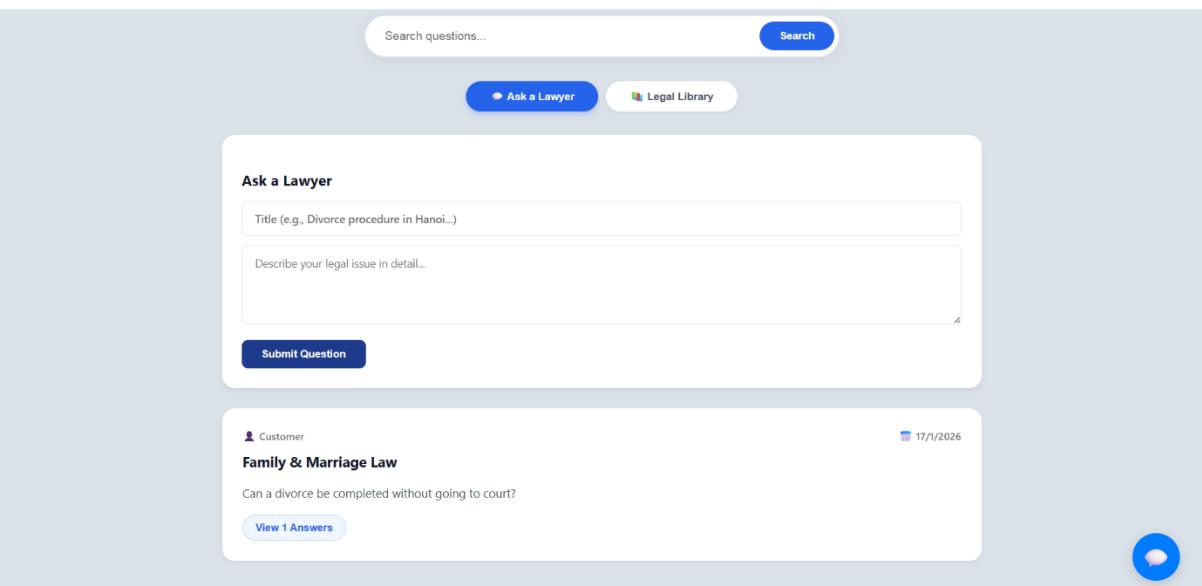
DESIGN PLAN	LegalEase	DOCUMENT	Review 1+2+3
EFFECTIVE DATE	27/12/2025	VERSION	1.0

LawyerDetail



The screenshot shows the Lawyer Detail page for Sarah Thompson. At the top, there is a header with the LegalEase logo, navigation links (Home, Find Lawyers, Q&A Knowledge), and a notification badge (2) and customer profile icon. The main content area features a profile picture of Sarah Thompson, her name, and a 'BOOK A CONSULTATION' button. Below this, there are two columns: 'About' (describing her focus on Marriage & Family Law and Civil Law) and 'Recognition' (listing her as 'Outstanding Lawyer of 2025'). On the left, there is a 'Practice Information' section with details like area (Quận 1, TP. Hồ Chí Minh), years practicing (since 2018), and license number (LAW-2022). On the right, there is a 'Fees and Rates' section with cost (300,000 - 1,000,000) and payment methods (Visa, ApplePay, Paypal, MasterCard, GPay).

Q&A



The screenshot shows the Q&A page. At the top, there is a header with the LegalEase logo, navigation links (Home, Find Lawyers, Q&A Knowledge), and a notification badge (1) and customer profile icon. The main content area features a search bar, a 'Ask a Lawyer' button, and a 'Legal Library' button. Below this, there is a form for 'Ask a Lawyer' with fields for 'Title' and 'Describe your legal issue in detail...', and a 'Submit Question' button. Further down, there is a section for 'Customer' with a 'Family & Marriage Law' question: 'Can a divorce be completed without going to court?' and a 'View 1 Answers' button. The date 17/1/2026 is also visible.

DESIGN PLAN**LegalEase****DOCUMENT****Review 1+2+3****EFFECTIVE DATE****27/12/2025****VERSION****1.0**

Client Appointment

1. Select consultation time with Sarah Thompson

2. Request Details

Sunday, 01/18/2026

Work Shift: 08:00 - 17:00

08:00 09:00 10:00 11:00 12:00 13:00

14:00 15:00 16:00

Selected Schedule:
08:00 | 1/18/2026

Select Consultation Package
Express Package (60 mins)

Describe your issue (Note to lawyer)
Please briefly summarize your legal issue so the lawyer can best assist you...

Estimated Total: 500,000đ
* The fee includes taxes and system service charges.

Proceed to Payment →

Back to Booking

Payment

Complete your transaction to secure the appointment

Payment Method

Visa ApplePay PayPal MasterCard GPay

Card Number
**** 3456

Expiry Date
MM/YY

CVV

Cardholder Name
CUSTOMER

Appointment Summary

Lawyer Sarah Thompson
Civil Law
lawyer@example.com
0980000001

Date: Sunday, 18 January 2026

Time: 08:00 (60 mins)

Location: 36 Nguyễn Thị Nghĩa

Your Note:
"Briefly describe your issue for the lawyer"

Consultation Fee: 454,545đ
Service Fee (10%): 45,455đ

Total Amount: 500,000đ

Cancellation Policy:
Free cancellation up to 2 hours before the start time. Late cancellations are non-refundable.

Secure and encrypted transaction

Pay 500,000đ Now

DESIGN PLAN

LegalEase

DOCUMENT**Review 1+2+3****EFFECTIVE DATE**

27/12/2025

VERSION

1.0

The image displays two screenshots of the LegalEase platform. The top screenshot shows the 'My Appointment History' page, featuring a card for a pending appointment with Sarah Thompson on Sunday, 01/18/2026, at 08:00. The cost is listed as 500,000 ₫. The bottom screenshot shows the 'Appointment Details' page for the same appointment, providing a breakdown of lawyer information, appointment details, location, and payment.

My Appointment History

Manage and track the status of your legal consultations.

APPOINTMENT DETAILS

LAWYER INFORMATION

LOCATION & CONTACT

PAYMENT

DESIGN PLAN

LegalEase

DOCUMENT

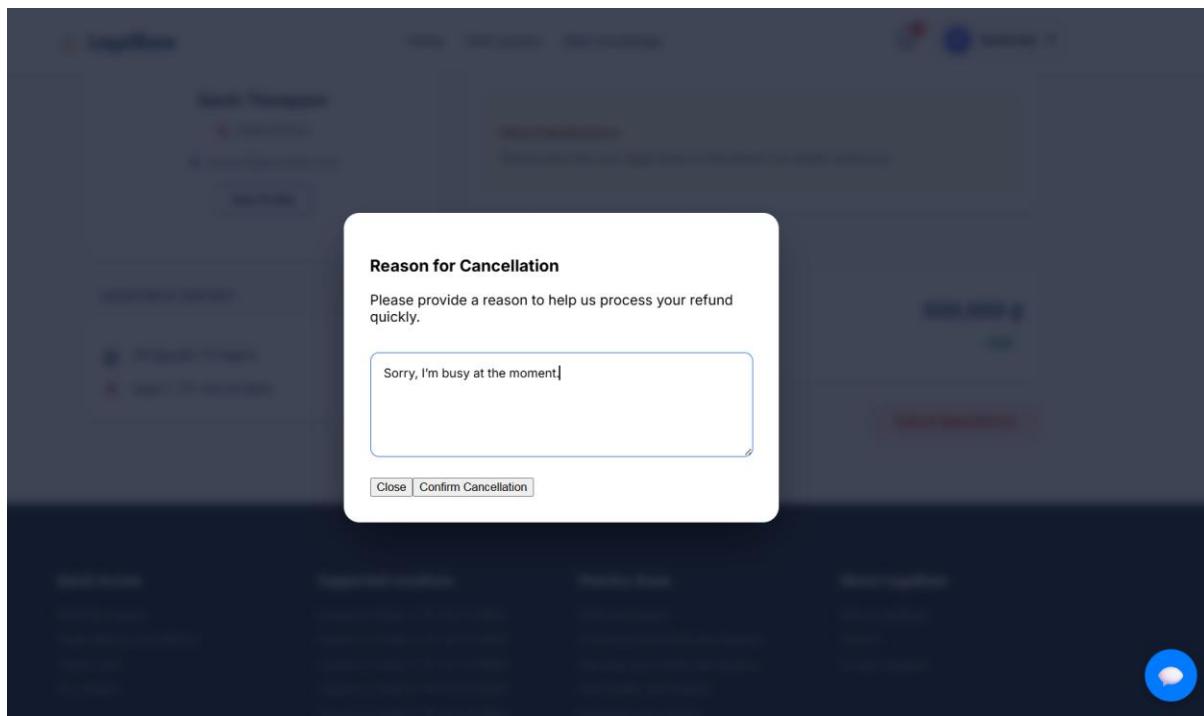
Review 1+2+3

EFFECTIVE DATE

27/12/2025

VERSION

1.0



DESIGN PLAN

LegalEase

DOCUMENT**Review 1+2+3****EFFECTIVE DATE**

27/12/2025

VERSION

1.0



Home Find Lawyers Q&A Knowledge



Personal Profile Settings

Personal Information


[Change Avatar](#)

Full Name *

Phone Number

Security & Password

Leave blank if you do not want to change your password.

Current Password

New Password

Confirm New Password

Save Changes



Home Find Lawyers Q&A Knowledge

Login

Sign Up

Sign In

Email

Password

Sign In

Don't have an account? [Register now](#)

DESIGN PLAN

LegalEase

DOCUMENT

Review 1+2+3

EFFECTIVE DATE

27/12/2025

VERSION

1.0



Home Find Lawyers Q&A Knowledge

Login

Sign Up

Create a Client Account

Full Name

Email

Phone Number

Password

Confirm Password

I agree to the terms and conditions

Register

[Are you a lawyer? Register here](#)

DESIGN PLAN

LegalEase

DOCUMENT**Review 1+2+3****EFFECTIVE DATE**

27/12/2025

VERSION

1.0

[Home](#) [Find Lawyers](#) [Q&A Knowledge](#)[Login](#)[Sign Up](#)

Join as a Lawyer

Create your professional profile

Account Information

Email *

Password *

Confirm Password *

Professional Profile

Full Name *

e.g. Atty. Nguyen Van A

Profile Picture (Optional)

Choose File No file chosenDefault avatar will be used if skipped.

Phone Number *

Experience (Years) *

Verification Documents

DESIGN PLAN

LegalEase

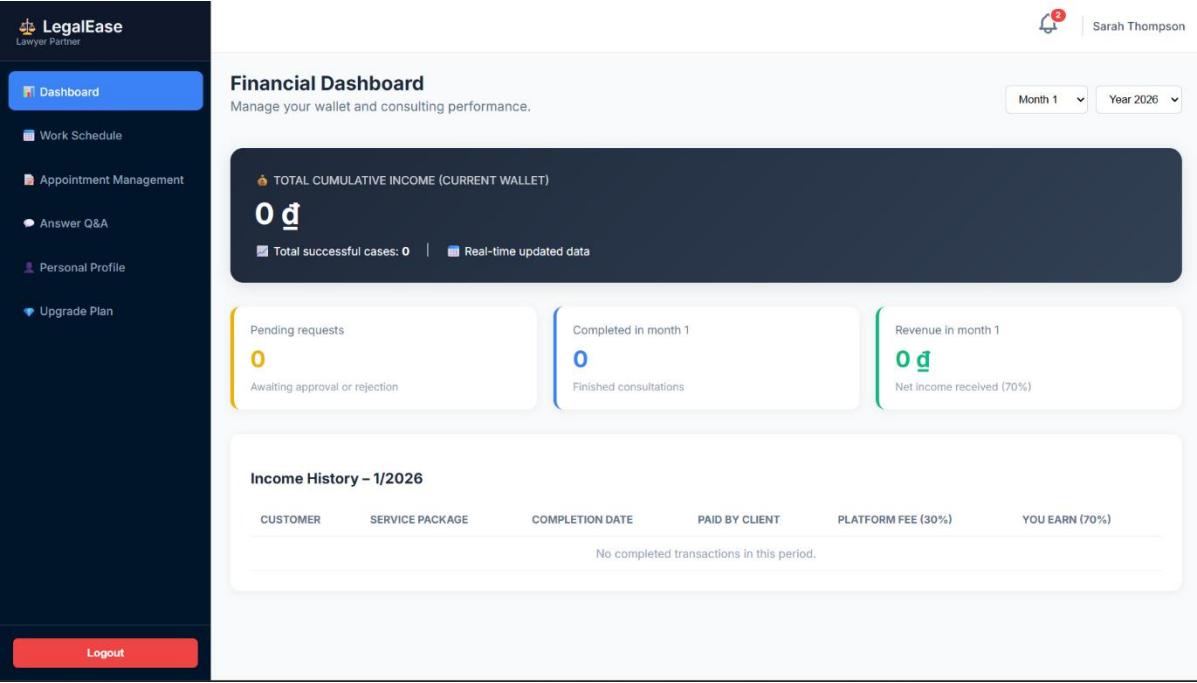
DOCUMENT**Review 1+2+3****EFFECTIVE DATE**

27/12/2025

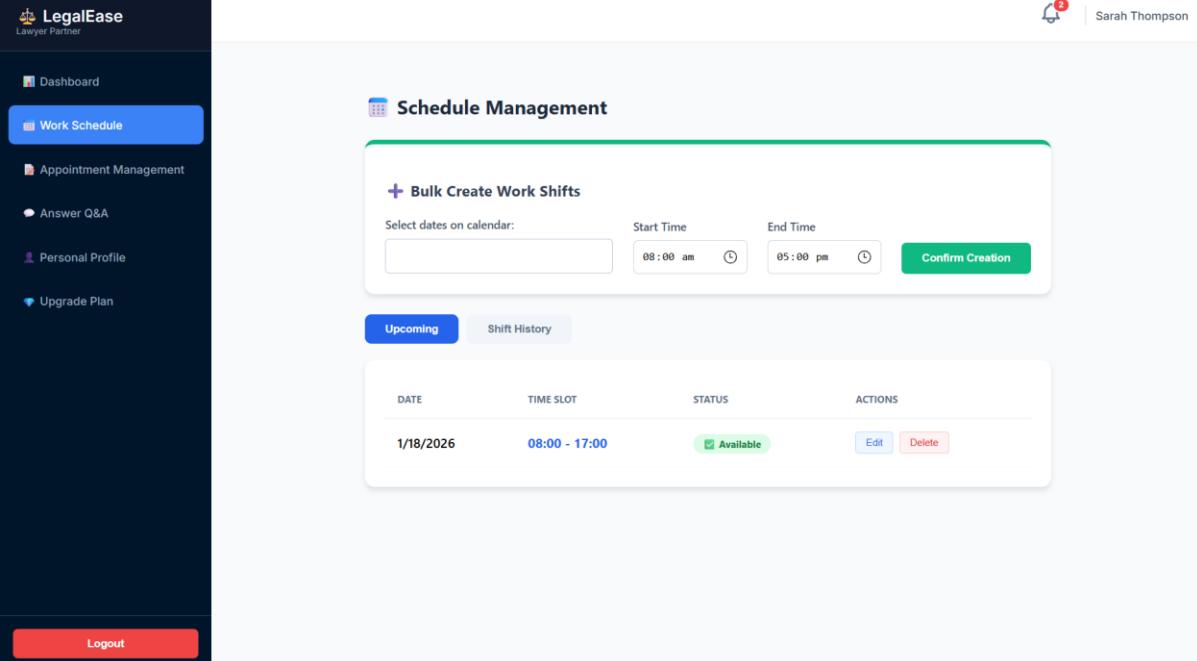
VERSION

1.0

Lawyer Dashboard



The screenshot shows the 'Financial Dashboard' section of the Lawyer Dashboard. The top header includes the LegalEase logo, a notification bell with 2 notifications, and the user's name, Sarah Thompson. Below the header, a sub-header reads 'Financial Dashboard' with the sub-instruction 'Manage your wallet and consulting performance.' A date range selector shows 'Month 1' and 'Year 2026'. The main content area features a large dark box with a gold '0' and a gold dollar sign, labeled 'TOTAL CUMULATIVE INCOME (CURRENT WALLET)'. Below this, a sub-section shows 'Total successful cases: 0' and 'Real-time updated data'. Three cards follow: 'Pending requests' (0, awaiting approval or rejection), 'Completed in month 1' (0, finished consultations), and 'Revenue in month 1' (0, net income received (70%)). At the bottom, a section titled 'Income History - 1/2026' shows a table with columns: CUSTOMER, SERVICE PACKAGE, COMPLETION DATE, PAID BY CLIENT, PLATFORM FEE (30%), and YOU EARN (70%). A note states 'No completed transactions in this period.' A red 'Logout' button is at the bottom left.



The screenshot shows the 'Schedule Management' section of the Lawyer Dashboard. The top header includes the LegalEase logo, a notification bell with 2 notifications, and the user's name, Sarah Thompson. Below the header, a sub-header reads 'Schedule Management' with a purple plus icon and 'Bulk Create Work Shifts'. A form allows selecting dates on a calendar, setting a start time of '08:00 am', an end time of '05:00 pm', and a 'Confirm Creation' button. Below this, tabs for 'Upcoming' and 'Shift History' are shown, with 'Upcoming' selected. A table lists an upcoming shift: 'DATE' (1/18/2026), 'TIME SLOT' (08:00 - 17:00), 'STATUS' (Available), and 'ACTIONS' (Edit, Delete). A red 'Logout' button is at the bottom left.

DESIGN PLAN

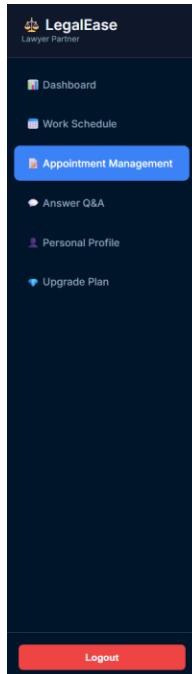
LegalEase

DOCUMENT**Review 1+2+3****EFFECTIVE DATE**

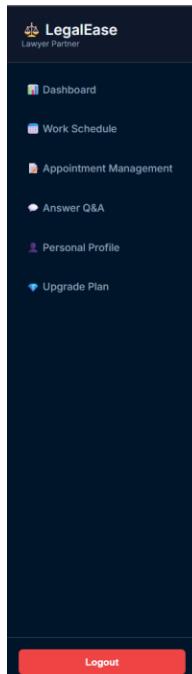
27/12/2025

VERSION

1.0



This screenshot shows the Lawyer Partner interface for appointment management. The top navigation bar includes a profile icon for Sarah Thompson and a red notification badge. The main section is titled 'Appointment Management' with tabs for All, Pending, Confirmed, Completed, and Cancelled / Expired. The 'All' tab is selected. A table lists appointments with columns for Customer, Service, Time, Status, and Action. One appointment is shown: Customer 0910002222, Legal Express, 08:00 - 09:00, Pending, and a Details button.



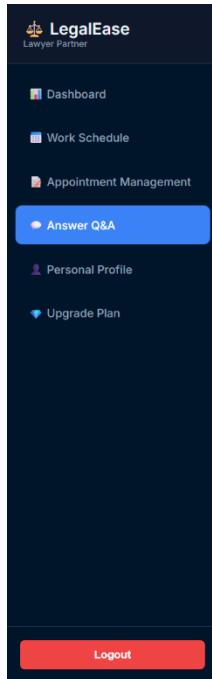
This screenshot shows the Lawyer Partner interface for appointment management, identical to the one above but with a different background color. The top navigation bar includes a profile icon for Sarah Thompson and a red notification badge. The main section is titled 'Appointment Management' with tabs for All, Pending, Confirmed, Completed, and Cancelled / Expired. The 'All' tab is selected. A table lists appointments with columns for Customer, Service, Time, Status, and Action. One appointment is shown: Customer 0910002222, Legal Express, 08:00 - 09:00, Pending, and a Details button.

DESIGN PLAN**LegalEase****DOCUMENT****Review 1+2+3****EFFECTIVE DATE**

27/12/2025

VERSION

1.0



Q&A Management

[New Questions](#)[Answer History](#)

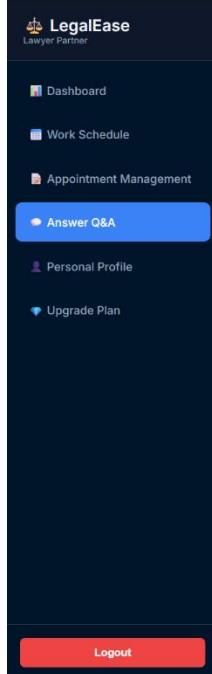
Family & Marriage Law

Asked by: Customer • 1/17/2026

Can a divorce be completed without going to court?

★ Your provided advice:

A mutual consent divorce can be resolved without a trial, but it must still be officially recognized by the court to be legally valid.

Status: Approved

Q&A Management

[New Questions](#)[Answer History](#)

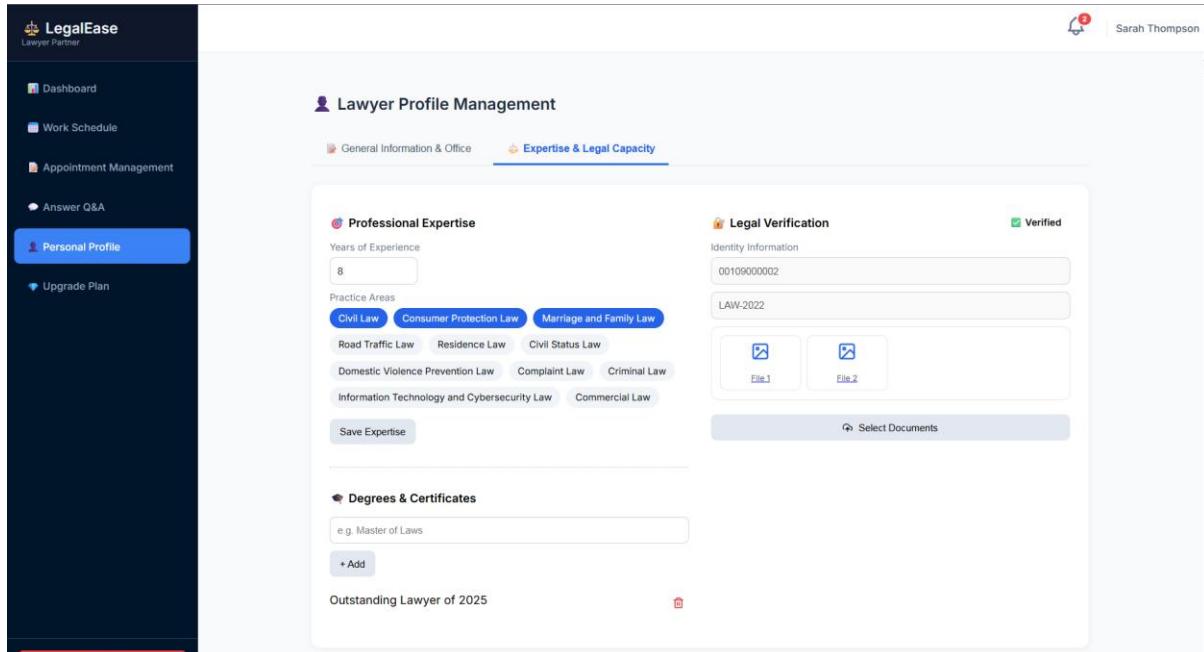
Family & Marriage Law

Asked by: Customer • 1/17/2026

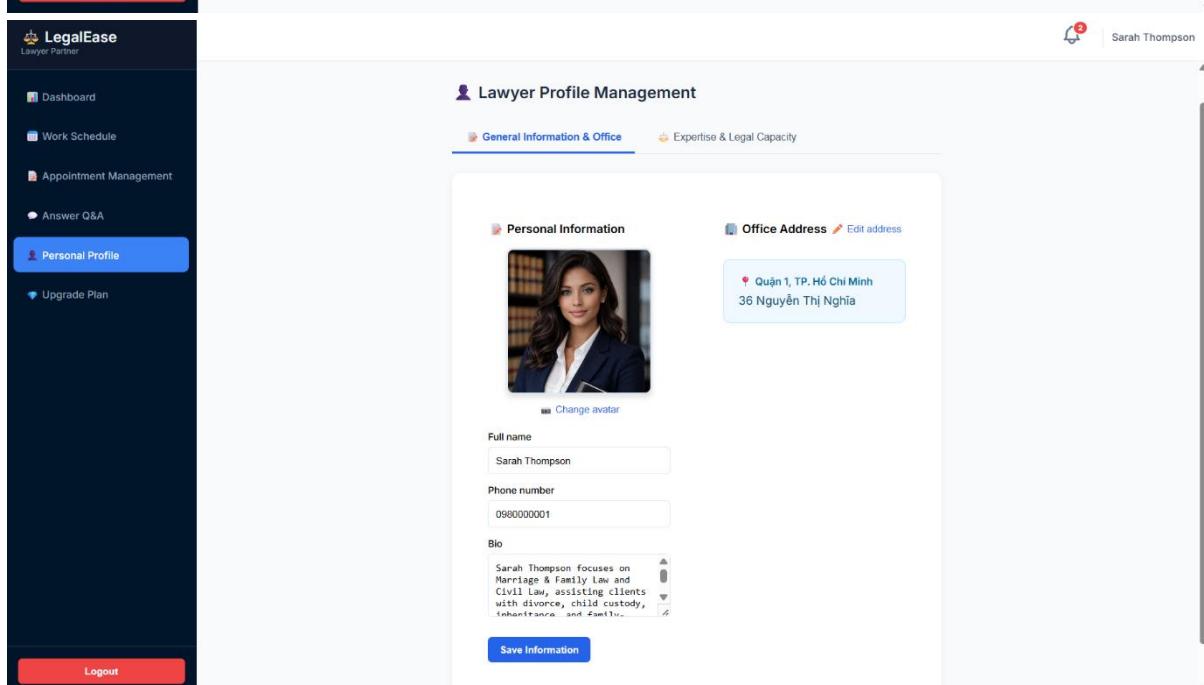
Can a divorce be completed without going to court?

A mutual consent divorce can be resolved without a trial, but it must still be officially recognized by the court to be legally valid.

[Submit Answer](#)

DESIGN PLAN**LegalEase****DOCUMENT****Review 1+2+3****EFFECTIVE DATE****27/12/2025****VERSION****1.0**

The screenshot shows the 'Lawyer Profile Management' section under the 'Expertise & Legal Capacity' tab. It includes fields for 'Professional Expertise' (Years of Experience: 8, Practice Areas: Civil Law, Consumer Protection Law, Marriage and Family Law, etc.), 'Legal Verification' (Identity Information: 00109000002, LAW-2022, file attachments), and 'Degrees & Certificates' (e.g. Master of Laws, + Add). A badge 'Outstanding Lawyer of 2025' is also present.



The screenshot shows the 'Lawyer Profile Management' section under the 'General Information & Office' tab. It includes sections for 'Personal Information' (Avatar, Change avatar, Full name: Sarah Thompson, Phone number: 0980000001) and 'Office Address' (Edit address, Quận 1, TP. Hồ Chí Minh, 36 Nguyễn Thị Nghĩa).

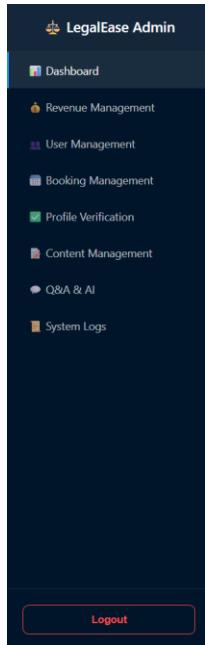
Admin Dashboard

DESIGN PLAN**LegalEase****DOCUMENT****Review 1+2+3****EFFECTIVE DATE**

27/12/2025

VERSION

1.0



Welcome, Admin (Role 1)

**Dashboard Overview****Users**

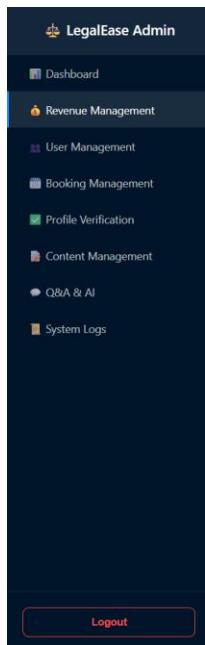
Customers	6
Total Lawyers	7
Active Lawyers	7

Appointments

Total Bookings	1
Pending Approval	1

Pending Verifications

Lawyers waiting for approval

0[Review Now →](#)

Welcome, Admin (Role 1)

**Revenue & Financial Management**

Monitor cash flow and manage refunds

[Overview](#)[Refund Requests](#)All Time ▼**Subscription Fees (100%)****6.850.000 ₮**

Revenue from Lawyers

Total Booking Value (GMV 100%)**3.400.000 ₮**Platform Share (30%)
1.020.000 ₮
Lawyer Share (70%)
2.380.000 ₮**Net Revenue Received****7.870.000 ₮**

Subscription + (Booking × 30%)

Recent Successful Transactions

Transaction ID	User	Type	Gross Amount	Net Amount	Date
#PAY_9C5EC911	customer2@example.com	Booking	500.000 ₮	150.000 ₮	17/1/2026
#TXN_BK_17685258568600	customer2@example.com	Booking	600.000 ₮	180.000 ₮	16/1/2026
#TXN_BK_17685255683785	customer2@example.com	Booking	300.000 ₮	90.000 ₮	16/1/2026

DESIGN PLAN	LegalEase	DOCUMENT	Review 1+2+3
EFFECTIVE DATE	27/12/2025	VERSION	1.0

Welcome, Admin (Role 1)

Revenue & Financial Management

Monitor cash flow and manage refunds

[Overview](#) [Refund Requests](#)

Pending Refund Requests

Invoice ID	Customer	Amount	Appointment Date	Action
#PAY_9C5EC911	customer2@example.com	500.000 ₫	18/1/2026	Process Refund

Welcome, Admin (Role 1)

User Management

[Lawyers](#) [Customers](#)

ID	AVATAR	USER INFO	PLAN	PLAN TYPE	START DATE	END DATE	STATUS	ACTIONS
#14		Nguyễn Đức Long nguyenlong1988hcm@gmail.com	PAID	Yearly Premium	14/01/2026	14/01/2027	ACTIVE	Edit Lock Delete
#7		Daniel Carter lawyer6@example.com	PAID	Monthly Pro	10/01/2026	10/02/2026	ACTIVE	Edit Lock Delete
#6		Michael Anderson lawyer5@example.com	PAID	Monthly Pro	10/01/2026	10/02/2026	ACTIVE	Edit Lock Delete
#5		Anna Peterson lawyer4@example.com	PAID	Yearly Premium	11/01/2026	11/01/2027	ACTIVE	Edit Lock Delete
#4		James Wilson lawyer3@example.com	PAID	Yearly Premium	10/01/2026	10/01/2027	ACTIVE	Edit Lock Delete
#3		Sophia Martinez lawyer2@example.com	PAID	Yearly Premium	10/01/2026	10/01/2027	ACTIVE	Edit Lock Delete
#2		Sarah Thompson lawyer1@example.com	PAID	Yearly Premium	10/01/2026	10/01/2027	ACTIVE	Edit Lock Delete

DESIGN PLAN

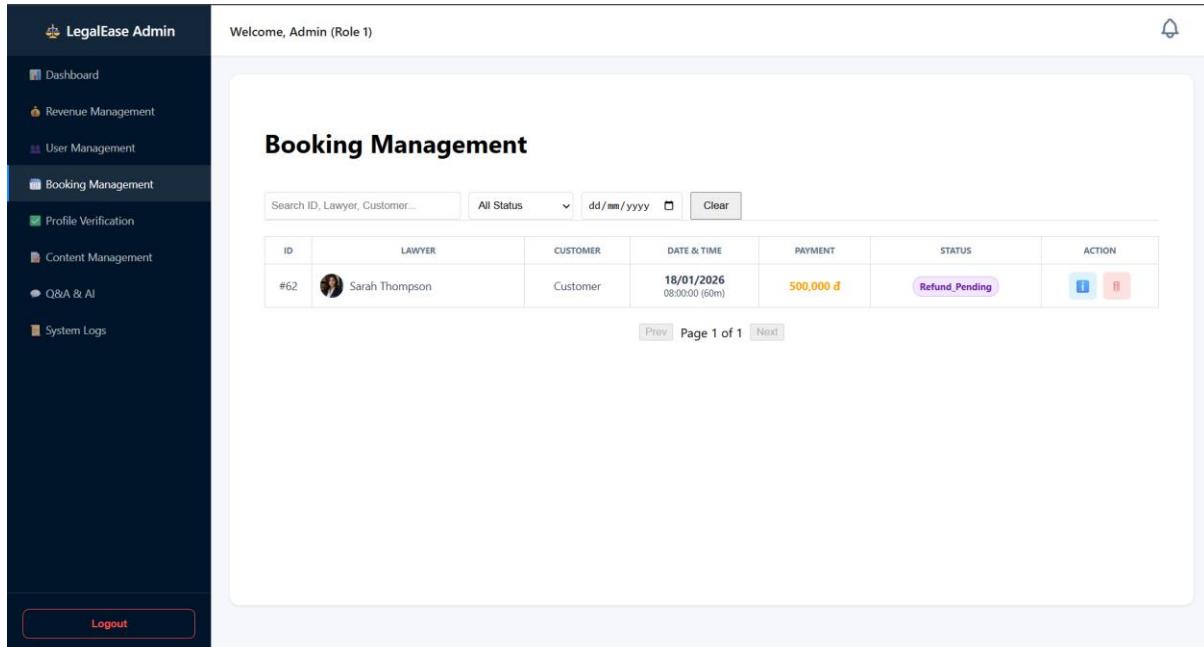
LegalEase

DOCUMENT**Review 1+2+3****EFFECTIVE DATE**

27/12/2025

VERSION

1.0



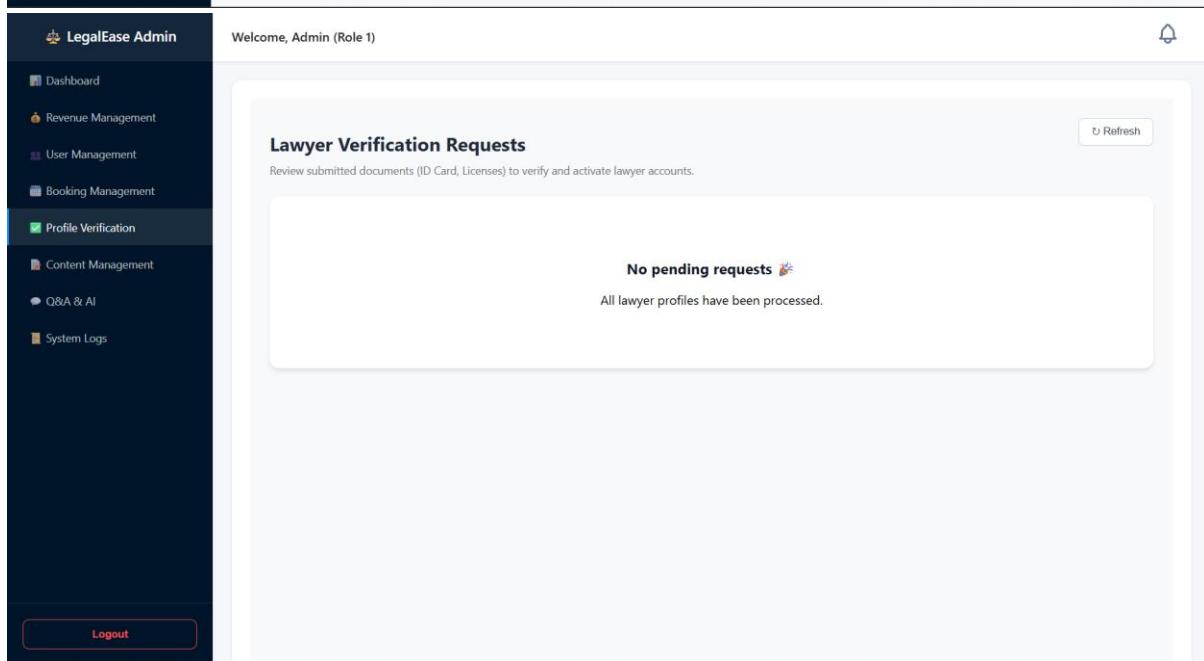
Welcome, Admin (Role 1)

Booking Management

ID	LAWYER	CUSTOMER	DATE & TIME	PAYMENT	STATUS	ACTION
#62	 Sarah Thompson	Customer	18/01/2026 08:00:00 (60m)	500,000 ₣	Refund_Pending	 

Prev Page 1 of 1 Next

Logout



Welcome, Admin (Role 1)

Lawyer Verification Requests

Review submitted documents (ID Card, Licenses) to verify and activate lawyer accounts.

No pending requests 

All lawyer profiles have been processed.

Refresh

Logout

DESIGN PLAN

LegalEase

DOCUMENT**Review 1+2+3****EFFECTIVE DATE**

27/12/2025

VERSION

1.0

Welcome, Admin (Role 1)

Content Management

+ Add New Content

All	News	Guide	FAQ		
1	No img	FAQ	Làm thế nào để đặt lịch?	Việc đặt lịch tư vấn với Luật sư trên nền tảng của chúng tôi được thiết kế đơn giản.	Edit Delete
2		News	LegalEase ra mắt nền tảng kết nối luật sư	LegalEase giúp khách hàng tìm luật sư phù hợp một cách nhanh chóng.	Edit Delete
3	No img	Policy	Chính sách bảo mật	Chúng tôi cam kết bảo vệ dữ liệu cá nhân của người dùng.	Edit Delete
4		News	1 cơ sở ở TP.HCM sản xuất 800 tấn mì tươi trộn hàn the	Ngày 12-1, Phòng Cảnh sát kinh tế (PC03), Công an TP.HCM cho biết đã khởi tố bị ...	Edit Delete

Logout

Welcome, Admin (Role 1)

Q&A & AI Management

Review Questions Review Answers Manage Public Q&A Legal Knowledge (AI) Ai Chat Logs

ID	QUESTION	ANSWERS (APPROVED)	ACTIONS
21	Family & Marriage Law Can a divorce be completed without going to court? By: Customer	Sarah Thompson: A mutual consent divorce can be resolved without a trial, but it must still be officially recognized by the court to be legally valid.	Edit Delete Thread

Previous Page 1 of 1 Next

Logout