



**Department of Computer Science &
Engineering
University of Asia Pacific**

Course Code: CSE 314

Course Title: Software Engineering Lab

Submitted To:

Tahmid Taki Rahman
Lecturer

Department of Computer Science &
Engineering
University of Asia Pacific

Submitted By:

Bivas Nandan Debnath ID:22201256

Nusrat Nafisa ID:22201253

Nazim Uddin ID:22201271

Proposal Project

Project Name: Law Aid

Problem Statement:

In Bangladesh, most citizens especially in rural areas or with limited education face significant challenges in accessing legal support. They often lack understanding of their legal rights, court procedures, or how to find the right lawyer. Existing platforms are either outdated, overly technical, or inaccessible due to the absence of Bangla language support and citizen-focused design. As a result-

- People are unsure which law applies to their situation (e.g., land disputes, family issues, cybercrime)
- There is no easy system to find and consult with a trusted lawyer nearby
- Legal documents and court verdicts are written in complex, inaccessible language
- Many citizens are unable to ask questions or get guidance anonymously

These barriers contribute to widespread legal illiteracy, case mismanagement, and exploitation by fake legal agents or brokers.

Proposed Solution :

Law Aid will be a user-friendly, Bangla-first legal support platform designed to help ordinary citizens understand and access legal services. It will offer verified lawyer search by case type and

location, simple Bangla explanations of important laws with examples, and interactive tools to guide users through common legal issues. The platform will also include a Q&A forum for anonymous legal questions, making legal aid more accessible, clear, and trustworthy for all.

Literature Review:

For literature review we have picked up a few existing websites which share the same idea as we do. We have found some merits, demerits of these existing websites. In this review, we are going to explain or state the differences and compare our idea with the already existing websites.

1. Law Help BD:

Functionalities/ Strength:

- Publishes legal blogs and articles (some in Bangla, some in English).
- Covers legal some selected topics.
- Provides general legal awareness.

Limitations:

- No verified lawyer search or booking system.
- No real-life examples or legal document help.
- Not all laws of Bangladesh are available here.
- The laws are not properly explained in Bangla.

2. BD Law News:

Functionalities/ Strength:

- Publishes court verdicts and law updates.
- Includes some analysis of recent cases.

Limitations:

- Not user-friendly for non-lawyers.
- No lawyer connection or legal help tools.
- Content mostly in English.

3. LegalAdviceBD:

Functionalities/ Strength:

- Offers online legal advice
- Users can book appointments for in-person or phone consultations.
- Provides basic legal blogs and articles for awareness.
- Covers common legal issues such as family disputes, property matters, and criminal law.

Limitations:

- Doesn't show a lawyer's profile.
- No verified lawyer system or ratings/reviews to ensure credibility.
- Mostly static website with little interactivity for users.
- Limited Bangla content; legal terms are not simplified for general citizens.

Unique Value Propositions of Law Aid:

● Online Consultation

Unlike existing platforms that only provide articles or offline booking, Law Aid offers online consultations with legal consultants, making legal help more accessible.

● Verified Lawyer Profiles and Direct Booking

Each lawyer has a detailed verified profile (experience, specialization, cases handled) with a direct appointment booking option, ensuring trust and transparency for users.

● **Structured Bangla Law Database**

Law Aid features a comprehensive, categorized law database with simple Bangla explanations and real-life examples, addressing the language and accessibility gaps in other platforms.

● **Comprehensive Admin Control**

The platform includes robust admin features:

Add/update lawyer profiles and laws.

Verify lawyers and manage user accounts.

Developing Law Aid:

Law Aid can be built on available modern tools. For Backend we have chosen-

- ❖ Node.JS(for scalability which is important for a public platform like Law Aid and flexible behavior with databases such as MySQL, Mongodb, etc.)
- ❖ Express.JS(to fetch user-specific data and display it in the front-end, can handle filtering)

For Frontend -

- ❖ React.JS(fast and dynamic user experience, mobile-Friendly)

For database -

- ❖ MySQL(to handle data of our website).

Risk:

Legal Content Accuracy:

- **Risk:** If laws are outdated or incorrect, users may receive misleading information, leading to legal complications.
- **Mitigation:**
 - Partner with verified legal professionals and law firms for regular content reviews.
 - Implement a quarterly content update cycle for the law database.

Data Privacy & Security

- **Risk:** Sensitive user data (legal issues, appointment history, chats) may be exposed during cyberattacks or data breaches.
- **Mitigation:**
 - Use end-to-end encryption for chats and SSL/HTTPS for all connections.
 - Store only necessary user information and allow anonymous Q&A participation.
 - Follow role-based access control to limit data exposure.

Server Downtime & Hardware Requirements

- **Risk:** Sudden traffic surges could crash the server or slow the platform, especially during legal awareness campaigns or media coverage.
- **Mitigation:**
 - Host on a scalable cloud platform (AWS, Firebase, Render) with auto-scaling capabilities.
 - Set up real-time monitoring and backup servers.

Lawyer Availability & User Trust

- **Risk:** If enough verified lawyers do not join, users may lose trust in the platform.
- **Mitigation:**
 - Start with a small but verified network of active lawyers.
 - Offer ratings, reviews, and profile transparency to build user confidence.

Estimated costs :

Category	Details	Estimated Cost (BDT)
Development	<ul style="list-style-type: none">- Frontend (React.js, HTML/CSS/JS)- Backend (Node.js, Express.js)- Authentication system- Lawyer booking and law database- User, Lawyer & Admin dashboards	30,000 – 80,000 tk (student/in-house)
UI/UX Design	Wireframes, prototypes, branding, mobile-friendly layouts	60,000 – 100,000tk
Hosting & Domain	<ul style="list-style-type: none">- Cloud hosting (AWS, Firebase, Render)- Domain name	25,000 – 60,000 tk/year
Maintenance	Regular bug fixes, security patches, update	15,000 – 30,000 tk
Legal & Compliance	Consulting legal experts to verify laws & content accuracy	20,000 – 40,000 tk (one-time)

Total Estimated Initial Cost (MVP):1,30,000 – 2,50,000 tk

Potential revenue models:

Model	Description
Subscription-Based(Freemium)	User can access basic features (law database)for free while premium features like direct consultation
Lawyer Listing Fees & commission	Verified lawyers pay a listing fee to be on the platform or a commission (10–15%) for each booked consultation. Featured placements can also be offered for extra fees.
Pay-Per-Consultation	Users pay directly for each chat or video consultation with a lawyer. The platform retains a small service fee while the rest goes to the lawyer.
Advertisements (Selective)	Run non-intrusive ads or sponsorships from trusted law firms, NGOs, or legal book publishers. Ads will be limited to maintain credibility.
Partnerships & Grants	Collaborate with NGOs, government projects, and international organizations supporting legal literacy for funding and brand credibility.

Feasibility Study:

1. Technical Feasibility:

- Frontend:
 - React.js for fast, interactive, mobile-friendly UI
 - Component-based design for reusability
- Backend:
 - Node.js with Express.js for scalable server-side operations
 - RESTful APIs for communication between frontend and backend
- Database:
 - MongoDB (for flexibility) or MySQL (for relational data)
 - Stores users, lawyers, appointments, and Q&A posts
- Hosting:
 - Vercel/Netlify for frontend

- Render/Firebase/AWS for backend
- Low-cost, auto-scaling cloud platforms
- Security:
 - HTTPS, JWT authentication, and encrypted data storage
 - Role-based access and optional anonymity for users
- Team Readiness:
 - Full-stack JavaScript expertise ensures efficient development

Economic Feasibility:

The Law Aid platform can be developed and maintained with a moderate budget, making it suitable for a startup or student-led initiative. Since it follows a freemium model—offering basic legal resources for free and premium features at a cost—it does not require complete government or donor funding to sustain operations.

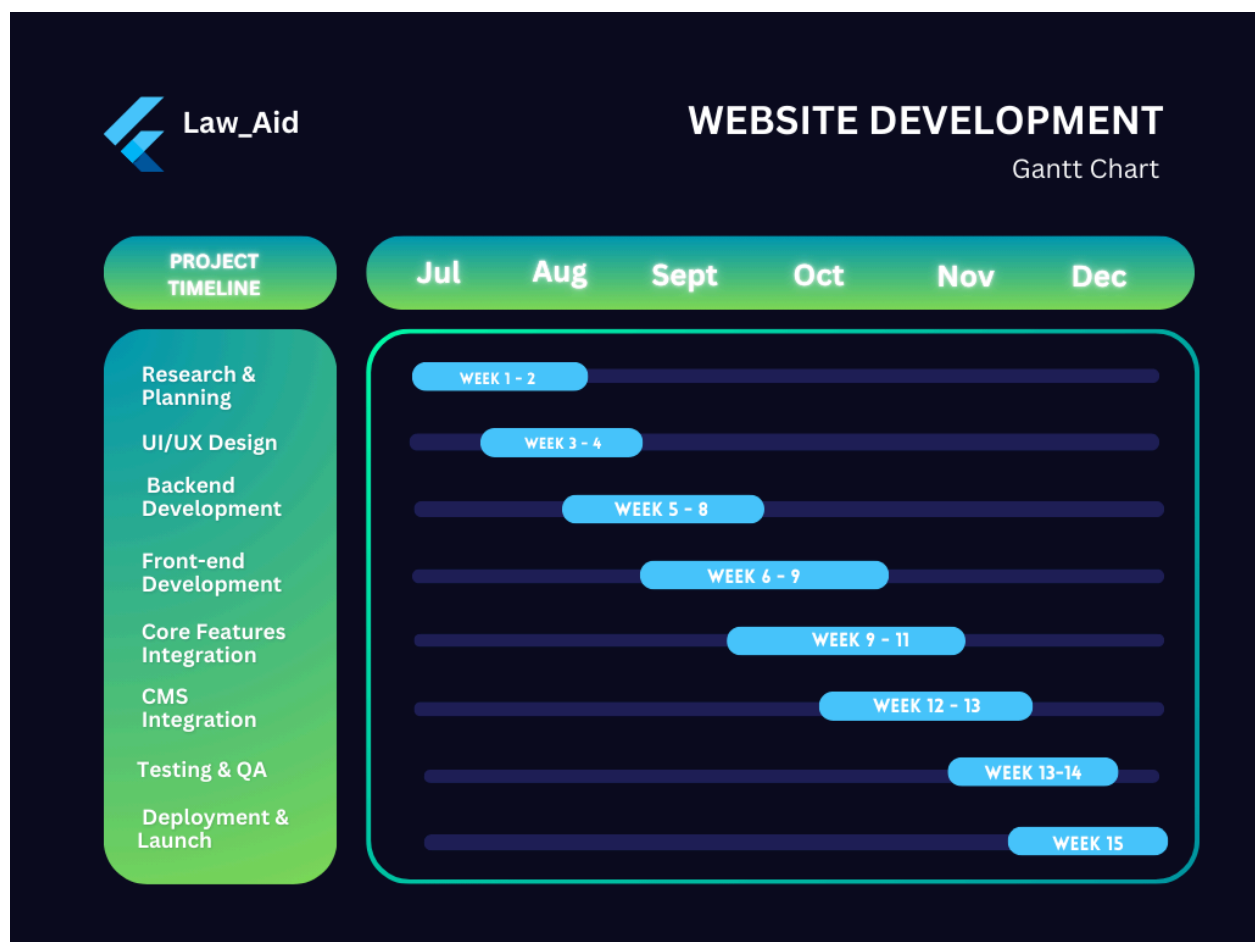
Development can be supported through private investment, NGO partnerships, or legal literacy grants. Operational costs (hosting, maintenance, and legal expert verification) are relatively low and can be scaled gradually as the user base grows.

Revenue will come from multiple sources, including lawyer appointment fees, premium features (such as anonymous consultations). Additional income can be generated from

commissions on bookings, and selective advertisements or sponsorships from NGOs, law firms, or corporate partners.

Overall, the platform is economically sustainable, with multiple revenue options to cover its operating costs and support future feature expansions.

Project Timeline:



Questionnaires for Survey and Interview:

For Interview:

1. How do you feel about using digital platforms for legal consultations and education?
2. Do you prefer seeing legal codes side-by-side in English and Bangla?
3. Do you think most people in Bangladesh know their basic legal rights? Why or why not?
4. Do you think women have enough safe, approachable legal support options in Bangladesh?
5. Based on what Law_Aid is trying to solve, what should we improve or prioritize first?
6. Do you believe people would trust legal advice more if it came from an online verified platform like Law_Aid?
7. What makes a legal website feel “safe” and credible to you as a user?
8. What would make someone trust a lawyer profile on a website?
9. What challenges do young people or women face when trying to access legal support?
10. What features or sections would you recommend we add to make Law_Aid more helpful?

For Survey:

1. What is your age group?
2. What is your gender?
3. What is your occupation?
4. Have you ever needed legal help before?
5. How confident are you in understanding your basic legal rights?
6. What are the biggest barriers to getting legal help in Bangladesh?
7. Have you ever searched online for legal help or legal information?
8. If yes, what challenges did you face during that search?
9. Which Law_Aid features do you find helpful or interesting?
10. Which legal topics would you like to learn more about?
11. In what language do you prefer reading legal information?
12. What would make you trust a legal help website like Law_Aid?
13. Would you use Law_Aid if it offered free or affordable legal support?
14. What features or improvements would make Law_Aid more helpful for you? Any suggestions?

Interview:

Interviewee 1:

Name: Maisha Islam Easha

Occupation: Law student

Age: 22

Interviewer: Nazim Uddin Asif

I chose Easha for the interview because, as a law student, she offers an informed perspective on the challenges and opportunities within the legal system. Her academic background and familiarity with legal procedures make her an ideal candidate for discussing how platforms like Law_Aid can improve legal accessibility, especially for people in rural areas. Easha's insights on legal rights, lawyer-client interaction, and access to verified legal information add valuable depth to the discussion.

1. How do you feel about using digital platforms for legal consultations and education?

Ans: If legal help can come straight to my phone it saves so much time and stress. In Bangladesh, people can't afford to take a day off work, travel to a city to wait for hours just to speak with a lawyer. If I could just open an app, explain my issue and get proper advice then it would make life so much easier.

2. Do you prefer seeing legal codes side-by-side in English and Bangla?

Ans: Definitely, yes. Even if someone is educated, legal English feels like a different language. Having Bangla right next to the English version makes it easier and understandable to the general people to know what is law and how it works.

3. Do you think most people in Bangladesh know their basic legal rights? Why or why not?

Ans: In Bangladesh, people are not bound to know the law. Therefore, most people only know about laws when something happens to them or someone close to them. The language in laws feels like it's written for lawyers not for common people. Also when people face trouble they go for family advice instead of actual legal facts.

4. Do you think women have enough safe, approachable legal support options in Bangladesh?

Ans: No because women don't feel safe around male lawyers for personal issues or whom to trust. Women don't want their cases to go public. And it's saddening that they are tormented by their own people and often face judgment or even threats when they seek help. They are always told to adjust instead of given the right to fight for their pride.

5. Based on what Law_Aid is trying to solve, what should we improve or prioritize first?

Ans: The first thing should be trust. Without trust, no one will open up about their problems. And to build the trust between lawyer and clients there must be verified lawyers, clear privacy rules, and a guarantee that their case details stay confidential and they get the remedies they are asking

for. Therefore, don't just copy paste from the law book cause then clients won't get the interest to read. The focus should be how law is comforting them when they are really in need of it, not complicated.

- 6.** Do you believe people would trust legal advice more if it came from an online verified platform like Law_Aid?

Ans: Probably 60-70% yes cause people often search for legal help online. But the problem is they don't know if the source is real. There is a question if they can trust the process or if it would really help them or if it's just a waste of time. If Law_Aid is official, has lawyers who are registered with the Bar Council and have some kind of approval from legal authorities, then they can build trust quickly. Therefore, it would make a big difference.

- 7.** What makes a legal website feel "safe" and credible to you as a user?

Ans: First and foremost, there need to be verified lawyer profiles with real credentials. Secondly, clear privacy policy so they can know that their information won't be shared. Thirdly, the app should look clean and professional, no suspicious links or ads or flashy banners that can create a hesitation in clients mind. And lastly, make it as easy as possible to create a real bond between lawyer and clients.

- 8.** What would make someone trust a lawyer profile on a website?

Ans: Trust needs to be built and when a lawyer's profile feels open and genuine like their full name, qualifications, years of experience and the areas of law they handle are going to

make an impact on the client. Most importantly their Bar Council registration number is a must. Reviews from previous clients should also be attached in their bio to make the client feel more confident, especially if they're verified reviews.

9. What challenges do young people or women face when trying to access legal support?

Ans: Young people and women often feel like their problems are not important and they feel neglected and it mostly happens if they don't have much money or influence. Women face more and more because they fear judgment, social backlash and particularly when the issue involves family, harassment or abuse. Most of the time they choose silence over fight cause their reputation would go down and they won't even get justice. All these barriers together discourage many from seeking help at all.

10. What features or sections would you recommend we add to make Law_Aid more helpful?

Ans: Law_Aid can be true life-changing, if it can focus on their authenticity and can give good guidance to the general people who have less or no understanding what law is or how it works. It should create a safe place for the clients and a step by step guiding sections for common problems like marriage registration, inheritance claims, harassment complaints or property disputes would make legal processes less confusing and more understanding to them. Those women who don't feel comfortable with male lawyers should have the option for speaking to female lawyers. And in Bangladesh, if there is Bangla beside the English that can be a great help for the common people cause it's our mother

language thus it will help many to understand in an easy way. And also there should be a cost estimation tool so that they can know the cost before consulting with the lawyer within their budget. Last but not the least there should be a tracker for those already in a case cause it will help them to know how the case is going and how to handle it so that they can have a peace of mind.

Interviewee 2:

Name: Abdullah Al Jubayer

Occupation: student

Age: 23

Interviewer: Bivas Nandan Debnath

How do you feel about using digital platforms for legal consultations and education?

1. Do you prefer seeing legal codes side-by-side in English and Bangla?
2. Do you think most people in Bangladesh know their basic legal rights? Why or why not?
3. Do you think women have enough safe, approachable legal support options in Bangladesh?
4. Based on what Law_Aid is trying to solve, what should we improve or prioritize first?
5. Do you believe people would trust legal advice more if it came from an online verified platform like Law_Aid?

6. What makes a legal website feel “safe” and credible to you as a user?
7. What would make someone trust a lawyer profile on a website?
8. What challenges do young people or women face when trying to access legal support?

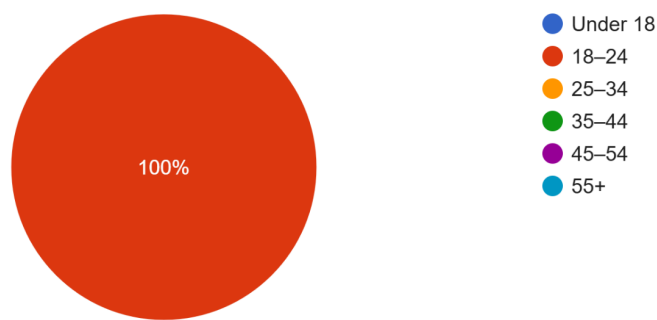
What features or sections would you recommend we add to make Law_Aid more helpful?

Survey Results and summary:

1.

What is your age group?

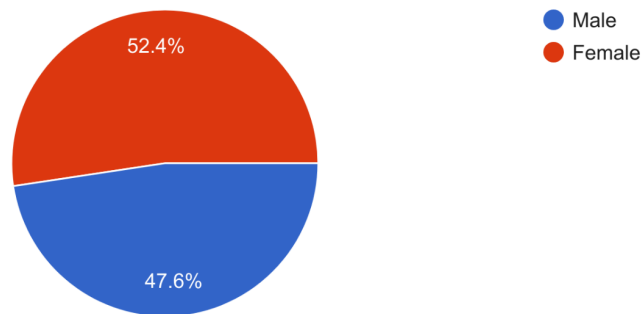
20 responses



All of the responders belong to he age group of 18-24.

What is your gender?

21 responses

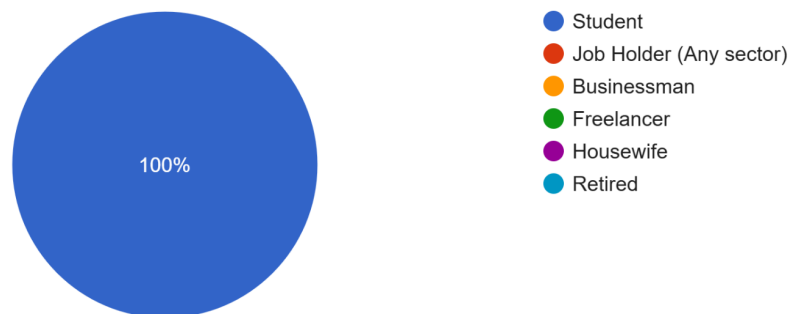


55% are female and 45% are male among the responders.

3.

What is your occupation?

20 responses

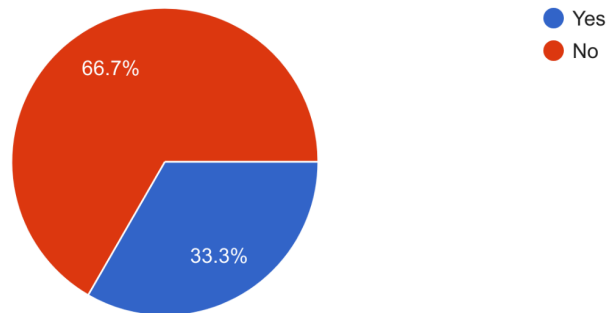


All the responders are students.

4.

Have you ever needed legal help before?

21 responses

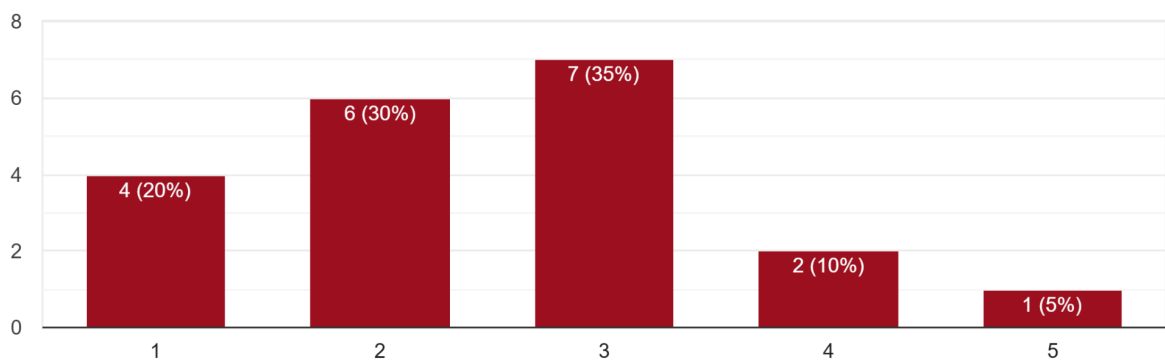


Out of the 20 responses, only 70% needed legal help before.

5.

How confident are you in understanding your basic legal rights?

20 responses

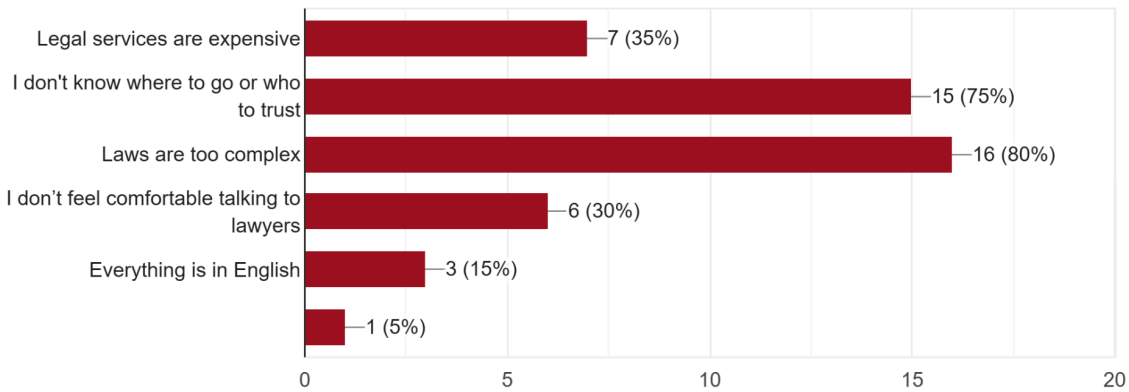


Only a 35% of the responders are somewhat confident in understanding their basic legal rights, where 1 means Not Confident at all and 5 means Very Confident.

6.

What are the biggest barriers to getting legal help in Bangladesh?

20 responses

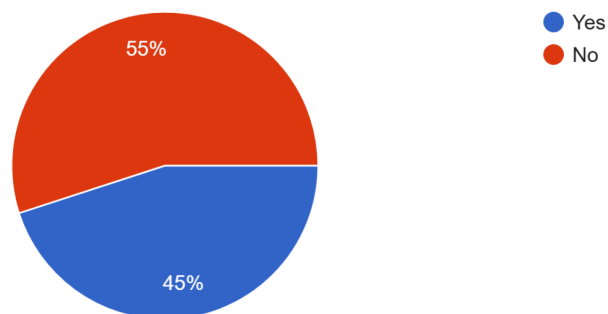


The laws being too complex is what the responders feel to be the biggest barrier to getting legal help in Bangladesh

7.

Have you ever searched online for legal help or legal information?

20 responses



Only 45% of our responders have searched online for legal help or information.

8.

If yes, what challenges did you face during that search?

8 responses

Insufficient knowledge

Too complex to understand.

No proper site

They are so complicated that understanding them is difficult

Finding reliable and clear legal information was the main challenge

N/A

Some of the laws are look similar but very complex to understand

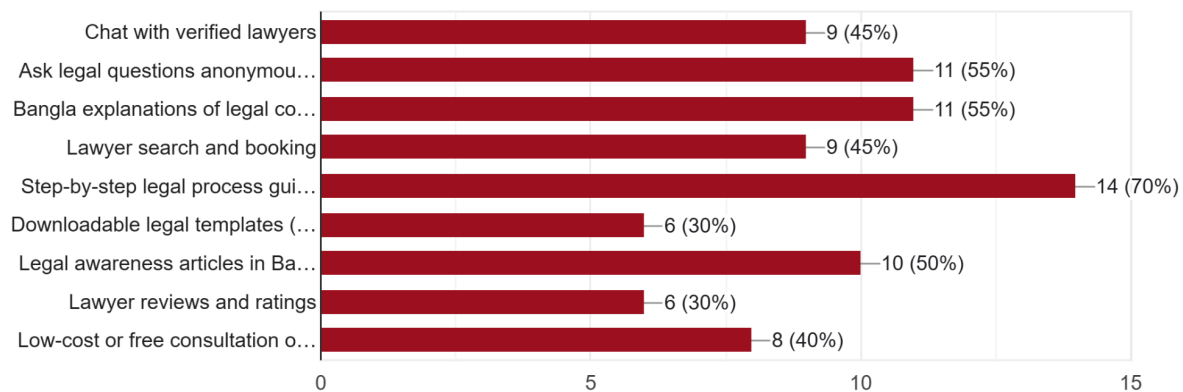
For land acquisition

These are the responses of the responder who have searched online for legal help or legal information.

9.

Which Law_Aid features do you find helpful or interesting?

20 responses

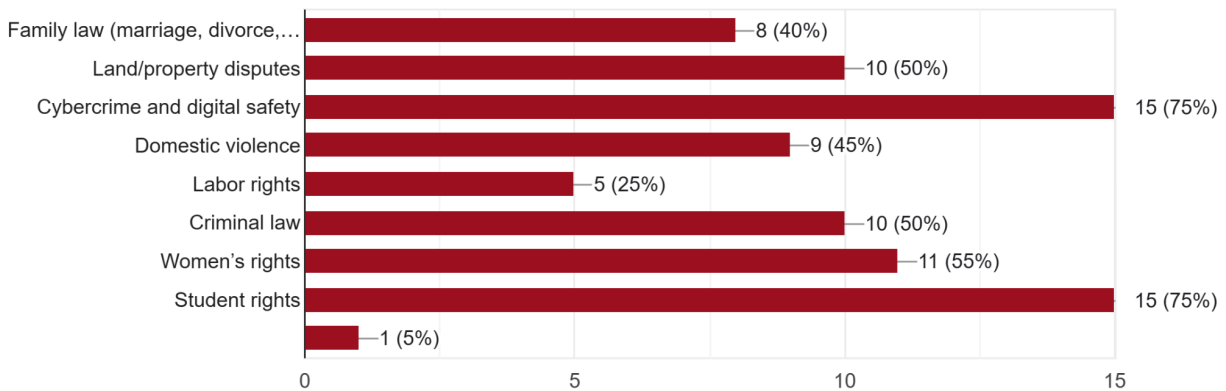


70% of the responders find the Step-by-step legal process guides as a helpful or interesting feature of Law_Aid.

10.

Which legal topics would you like to learn more about?

20 responses

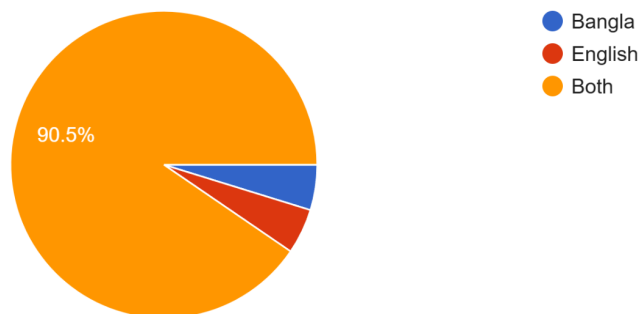


There is a tie between the Cybercrime and digital safety and Student rights, where 75% of the responders choose this as the topic they would like to learn more about.

11.

In what language do you prefer reading legal information?

21 responses

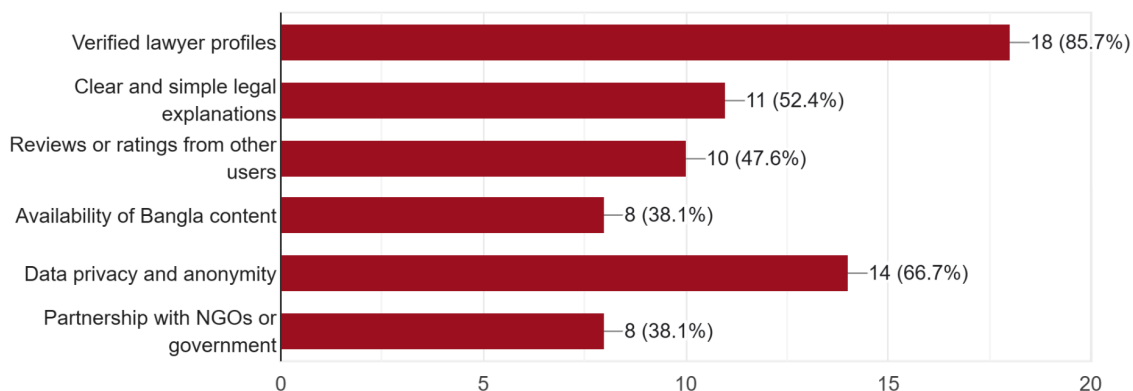


90.5% of the responders would prefer reading legal information in both Bangla and English.

12.

What would make you trust a legal help website like Law_Aid?

21 responses

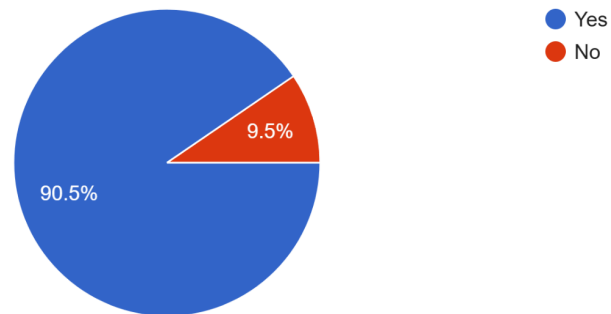


Verified lawyer profiles is what would make someone trust Law_Aid, is what is mostly chosen by the responders.

13.

Would you use Law_Aid if it offered free or affordable legal support?

21 responses



90.5% of them would use Law_Aid if it offered free or affordable legal support.

14.

What features or improvements would make Law_Aid more helpful for you? Any suggestions?

10 responses

N
No
No
Talk them directly
Adding simple language explanations and verified sources would make Law_Aid more helpful.
N/A
Court Date & Deadline Reminders, 24/7 Legal Hotline
Faster response time, clearer legal explanations, and more real-life case examples
Can ask legal question

Some suggestions by the responders to improve Law_Aid to make it more helpful.

Requirement Analysis:

Functional Requirements:

Admin Functionalities:

1. Admins can securely log in to the backend system. (**Must**)

2. Admins can verify lawyer documentation and approve registrations. (**Must**)
3. Admins can view or delete client and lawyer accounts. (**Must**)
4. Admins can add, update, or delete legal codes, legal articles, and Bangla explanations of legal codes. (**Must**)
5. Admins can monitor, review, and moderate Q&A content (**May**)
6. Admins can send notifications or announcements to all users. (**May**)

Client Functionalities:

1. Clients can register, log in, and log out securely. (**Must**)
2. Clients can view and update their personal profile. (**Must**)
3. Clients can search for lawyers based on specialization, location and availability. (**Must**)
4. Clients can view detailed lawyer profiles. (**Must**)
5. Clients can book appointments with lawyers. (**Must**)
6. Clients can chat with Legal consultants online. (**Must**)
7. Clients can view and read simplified legal codes and articles in both Bangla and English, and can also read Bangla explanations of legal codes. (**Must**)

8. Clients can provide ratings and feedback after a consultation. (**Should**)
9. Clients can receive reminders and notifications about upcoming appointments. (**May**)
10. Clients can view their consultation and booking history. (**Should**)
11. Clients can ask legal questions anonymously or publicly in the Q&A section. (**Should**)

Lawyer Functionalities:

1. Lawyers can register, submit required documents, and log in securely. (**Must**)
2. Lawyers can create and update their profile, including specialization, experience, and availability. (**Must**)
3. Lawyers can reschedule appointment requests. (**Must**)
4. Lawyers can view upcoming and completed sessions. (**Must**)
5. Lawyers can respond to legal questions in the public Q&A section. (**Should**)
6. Lawyers can write and post legal blogs or articles. (**May**)
7. Lawyers can receive and view client ratings and feedback. (**Should**)

Non Functional Requirements:

Performance Requirements:

Our system will load all pages within minimal time under normal conditions. Search results for laws or lawyers are expected to be displayed within 2 seconds. It supports at least 4,000 concurrent users without performance degradation and can scale to handle increased traffic when required.

Security Requirements:

All user and lawyer logins use secure authentication with encrypted passwords. Role-based access control is implemented for Admin, Lawyer, Consultant, and User. All communication is encrypted using HTTPS, and sensitive data is stored in an encrypted format. Lawyer registration requires document verification before profile approval.

Usability Requirements

Our system provides full support for both English and Bangla versions of all laws and explanations. Navigation is intuitive for laws, lawyers, appointments, and consultations, and the interface is fully responsive for all devices.

Availability & Reliability:

Our system maintains 99.5% uptime annually. Daily backups of the database are stored securely, and the system can be recovered within 4 hours in case of failure.

Maintainability:

Our system follows MVC architecture for easier updates and maintenance. All errors are logged with timestamps for debugging, and updates can be deployed with minimal downtime.

Legal & Compliance:

Our system complies with Bangladesh's data protection laws. User consent is obtained before collecting personal data, and all law information is accurate and updated with official publications.