

Independent University, Bangladesh

Mobile Application Development of "Your Lawyer" at Aveneur Solutions

An undergraduate internship report submitted by

Mohammad Shamim Hossain (Student ID: 1610098)

Under the guidance of

Mrs. Sabrina Alam

Lecturer Department of Computer Science and Engineering
Independent University, Bangladesh

In consideration of the partial fulfillment of the requirement for the degree of
BACHELOR OF SCIENCE in Computer Science
Department of Computer Science and Engineering
SPRING 2021

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Attestation

policy on this. I certify that this following internationally accept	agiarism, and I am aware of the University's is an original work by me during. However, ed academic guideline of using others written e form of code) in my University project is art of this work.
Signature	Date
Mohammad Shamim Hossain	

Acknowledgement

First of all, I would like to thank almighty Allah, for his grace in accomplishing my internship report timely. I would like to express my gratitude to the Faculty of Computer Science and Engineering department to keep internship credit in the curriculum of the graduation program and give me a scope of tasting the flavor of industry-oriented tasks and the field of work with my interest. I would like to thank specially to my supervisor, Mrs. Sabrina Alam, Lecturer, Department of Computer Science and Engineering, Independent University, Bangladesh, who encouraged and directed me with her continuous guidance, invaluable instructions, stimulating suggestions and thoughtful advice during pursuing this internship and preparation of this report.

I am also thankful to my organization supervisor of Mr. Ashiqur Rahman Rohan, Senior application developer, Aveneur Solutions from the core of my heart for her kind support, guidance, constructive, supervision, instructions and advice as well as for motivating me to do the internship smoothly at Aveneur Solutions. I express my profound gratefulness to all representatives of Aveneur Solutions for their participation and making a difference me to total this internship extend and report. Last but not least, I would like to thank my guardians and other family individuals for continuously giving me their unceasing back.

Mohammad Shamim Hossain June, 2021 Dhaka, Bangladesh

Letter of Transmittal

21th May, 2021

Mrs. Sabrina Alam

Lecturer,

Department of Computer Science & Engineering,

School of Engineering & Computer Science,

Independent University, Bangladesh

Subject: Submission of Internship Report for the completion of Graduation.

Dear Madam,

I am hereby submitting my Internship Report, which is a part of the BSc. Program in Computer Science curriculum. This report is based on, "Internship at Aveneur Solutions". I have got the opportunity to work at Aveneur Solutions for three months, under the supervision of Mr. Ashiqur Rahman Rohan, Aveneur Solutions. This internship has given me both academic and practical exposure.

The internship has allowed me to develop a network with the corporate environment. I tried to make this report as much information as possible with the experience I have gained during my internship period. To prepare a well-organized internship report, I have followed the guidelines and described the required fields with sufficient details. I, however sincerely believe that this report will serve the purpose of my internship program.

I shall be highly obliged if you are kind enough to receive this report and provide your valuable judgment. It would be my immense pleasure if you find this report useful and informative to have an apparent perspective on the issue.

Sincerely Yours,

Mohammad Shamim Hossain

ID#1610098

Department of Computer Science,

School of Engineering & Computer Science,

Independent University, Bangladesh

Abstract

Nowadays mobile development plays important role in modern life. This report is about the activity of the mobile app development department of Aveneur Solutions and my contribution to their project.

The report is broadly categorized into ten different chapters. At first, there is an introduction, Vision, Mission & objective, Corporate divisions, Details of the product lines or services. In chapter two focused on Literature Review. In this chapter, I told about the Relationship with Undergraduate Studies and Related Works. In Chapter three will be Project Management. And chapter four will tell about methodology. Internship experience & observation details will be talked in chapter five. Chapter six will tell about Project as Engineering Problem Analysis. Chapter seven about Internship outcome & issue analysis. Then chapter 8 about Conclusion & implication. Chapter nine will about References. And lastly, I talked about the Appendix in Chapter ten.

Evaluation Committee

Signature	
Name	
Supervisor	
Signature	
Name	
Internal Examiner	
Signature	
Name	
External Examiner	
Signature	
Name	
Convener	

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Introduction

Bangladesh is a country of population over 150 million with literacy rate of more than 50 percent. In the last two decades, the country has fetched remarkable economic progress with GDP growth rate of more than 5 per cent. It is argued that there is a tremendous prospect for the country to leapfrog into industrialized economy through the development of the IT sector. Because Bangladesh has high potential to become a huge source of skilled human resources with its cultural adoption capability, English language skills, analytical capability and a large number of educated and energetic youths with bright aptitude, good quality and natural ability in software development. A recent study shows that the wage rate of IT professionals in Bangladesh is almost half of the Indian IT professionals. However, the IT sector has not yet been growing as much as expected. The country obtained US\$ 33 million by exporting software in 2009. Although the export earnings from the software sector increased by eight million dollars in 2009, compared to 2008, the share of software export is only 0.2 per cent of the country's total export (BASIS 2010). The IT sector mainly concentrates in Dhaka, the capital city of Bangladesh. There are only one IT clusters namely the IT incubator center, which was established in November 2002, where around 50 IT firms are now doing business.

Software and IT service industry in Bangladesh has crossed a long road over the last few decades. It has matured. The industry no more remains at the sideline. It joined the mainstream. Not only the industry is contributing significantly in the national income, but also it has been playing very crucial role in creating high quality employment for a sizable portion of young graduates of the country.

1.1 Background

Generally, taking an appointment from a Lawyer is very hard. First, they need to find the nearest lawyer also need to know which lawyer is available. Sometimes people face harassment especially girls. But they can't find a lawyer instantly. There are many people in Bangladesh they don't know their rights. That's the reason they face a lot of problems. When someone has been injured in an accident, choosing the right law firm to handle their case is a difficult undertaking. This Mobile-based real-time lawyer system will solve all these problems.

So, by using this app victims can find a lawyer easily. This data will be stored in the database for further reference or audit. Also, people able to know their rights.

1.2 Objective

Project objectives are what we plan to achieve by the end of our project. The objective of a project is specific, measurable and must meet time, budget, and most importantly meet the client's requirements. The main objectives of this application are described below:

- Automate the current system.
- To provide information about fees, appointment time, appointment date.
- To access victims list in the app from any place, so lawyers can schedule their plan accordingly.
- This mobile application must attract prospective clients.
- Educate visitors and help them to know about own rights and decide that apps are the right choices to solve their legal issues.
- To store data in the database for further reference or audit.

1.3 Scope of the project

This Mobile-based lawyer apps will permit to register lawyers and victims. It also provides a login page after the registration process. It provides a different user interface with different functionality for lawyers and victims. This application solves the current lawyer system and provide better services. The main users of the project are to find the right lawyer. Using this application people can know their rights. Also, lawyers can able to see how many victims are coming, how many appointments are done, how many appointments pending. The system provides information about the lawyers.

1.4 Company profile:

Aveneur Solutions is an aesthetic-first web design, digital content and software development company - serving businesses both large and small. We are a creative IT company that provides a diverse set of services tailored to your specific needs. We also promote innovation, develop ideas into reality and provide opportunities for businesses to grow. Their main services are to set up and maintain business dashboards, data mining, and reporting. They also provide the full range of consultancy and implementation of Cloud Computing Architecture by designing highly fault-tolerant, scalable, secured, compliant, and cost-effective solution according to need.

1.4.1 Vision, mission & objective:

Mission

Aveneur Solutions mission is to provide the highest-grade, bespoke web, application, software, and technological solutions to its valued client base in an affordable and time-efficient manner. They provide services to all types of companies from solo bloggers to large enterprises.

Vision

We are on a journey to expand and grow into a ubiquitously trusted name in the fields of digital design and technology. In time, Aveneur Solutions shall span the globe to provide its digital development and technology transfer services in major markets of the world over, such as the United Kingdom, Singapore and the United States. The core values of the company shall always be integrity and social responsibility.

Objective

Top products, top performance, and top service.

Aveneur Solutions customers' success is our declared goal and utmost concern. Therefore, they make great demands on every detail of our work in all sections of our services.

They offer our customers

- high-performance, user-friendly software solutions
- first-class, proven hardware products and
- comprehensive individual services

Treat each other with responsibility and respect.

Their everyday work both within and outside the company is characterized by mutual respect. The resulting positive attitude is the basis for all issues related to personnel management – at all hierarchical levels.

They expect and encourage

- a high level of self-motivation,
- constructive criticism,
- individual responsibility,
- a pleasant working environment as well as
- continuing education.

They continue to develop ourselves and our performances.

The services provided by them have a significant influence on the central business processes of our customers. Therefore, they conduct strict internal control to ensure a high level of transparency and gapless traceability of all work processes.

They continuously control and optimize the effectiveness and efficiency of their actions to be more productive at work and to further improve the quality of their job performance at the same time.

They secure our leading position every day – thereby maintaining our independence.

The quality and efficiency of their products and solutions and also their daily personal commitment has made them the market leader concerning ERP solutions for the packaging industry.

To maintain this status and ensure the future success of their company, they pursue clear strategic objectives. Together they want to

- create new jobs
- maintain existing jobs,
- foster innovations and
- plan and shape the future.

Updates at regular intervals and ongoing maintenance ensure the functioning of our IT solutions while safeguarding the customers' investments at the same time. Only satisfied and successful customers help them to reach their most important strategic goal: to maintain and expand their corporate success and their financial and economic independence.

1.4.2 Corporate divisions:

Aveneur solutions is under IT divisions.

1.4.3 Details of the product lines or services

Design: Visual service

Their designing team of creative minds explore new ideologies through the challenges our clients provide us. We use various visualization tools like the ones provided by Adobe Creative Suite to meet the need of our clients.

Develop:

At Aveneur, they provide high quality Software's and Solutions through Test Automation, Quality Assurance and Agile Processes. Their success in Software/Application development is achieved through effective collaboration between the Stakeholders. They tackle any changes made through our effective set of Procedures to overcome the challenges in an organized way. They encourage external participants to review our projects to bring out a diverse perspective of the software to ensure quality.

They Use HTML, CSS, JavaScript, React, Typescript, Dotnet core and Flutter.

Innovation:

- Business consultancy
- Security System
- Cloud Migration
- Data Mining
- Al Chatbot Integration
- IOT Services
- Company Training & Certifications

Literature Review

A literature review or narrative review is a type of review article. A literature review is a scholarly paper that presents the current knowledge including substantive findings as well as theoretical and methodological contributions to a particular topic. Conducting a writing audit includes collecting, assessing and analyzing distributions that relate to you inquire about question. A literature review is a survey of scholarly sources on a specific topic. It provides an overview of current knowledge, allowing you to identify relevant theories, methods, and gaps in the existing research. The literature review strategy is an examination of data on particular subject. It is looking into what is known, and not what is expected. It points to form the ultimate, exact representation of the knowledge and research-based hypothesis accessible theme. This strategy is aiming to be utilized due to require of gathering and preparing hypothetical base. I am aiming to utilize diverse books and articles too other sources like instructional exercises, gatherings and related program.

2.1 Undergraduate Courses related to the Project:

As I am student of Independent University, Bangladesh in the department of computer science. I completed all off my course then offered by my University. The course and syllabus in a very efficient way which helped me a lot to accomplish my project. Database management system, Web application, Mobile application, System analysis and design, Software

Engineering, Software Quality and testing, C++, Java, data Structure all of these courses helped me to documented and implemented my task in internship program.

2.2 Related Works:

Programming – To build the mobile applications I need to program. In University I learn different programming language like java, C++, Python. That helps to understand Dart language. I think every language is similar.

Structuring Data – A project has lots of different categories data which need to be structured properly. In this project, Data Structure and Database management system courses' knowledge helps me to structure this project data in well manner.

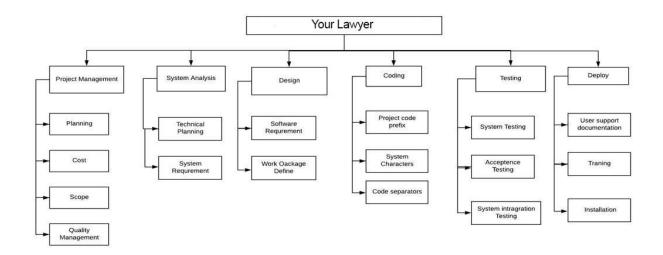
Algorithmic programming – To implement any logic need to choose write approach which also called efficient Algorithm. The knowledge of Algorithms course is applied here.

Project Management – To complete any project needs a proper management in workloads. The knowledge of Software engineering course is applied here. I learn also software marketing in this course. That's helps me a lot to manage project.

System Analysis – Every system needs to be analysis. Hence, the knowledge of System Analysis and design is applied here.

Project Management

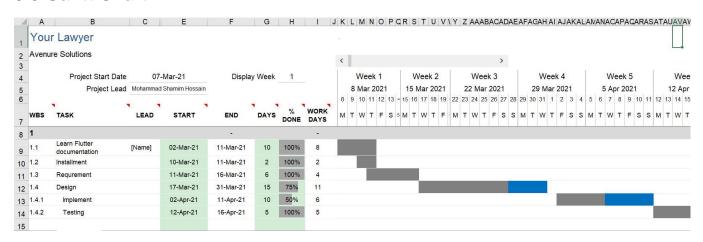
3.1 Work Breakdown Structure



3.1 Activity wise days of work distribution

Activity wise days of work distribution			
and the second s		Expected days	Considered Days
Project Management	10%	8.8	9
System Analysis	20%	17.6	18
Desing	15%	13.2	13
Coding	30%	26.4	26
Testing	15%	13.2	13
Implementation and Deployment	10%	8.8	9
	100%		

3.3 Gantt Chart



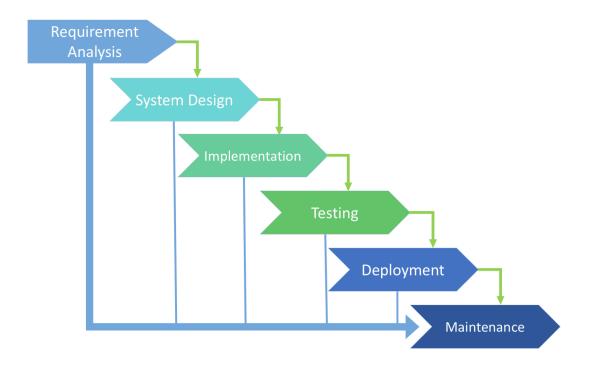
Methodology

4.1 SYSTEM DEVELOPMENT METHODOLOGY (SDLC):

One of the basic notions of the software development process is SDLC models which stands for Software Development Life Cycle models. SDLC – is a continuous process, which starts from the moment, when it's made a decision to launch the project, and it ends at the moment of its full remove from the exploitation. There is no one single SDLC model. They are divided into main groups, each with its features and weaknesses.

4.1.1 Waterfall Model:

Waterfall – is a cascade SDLC model, in which development process looks like the flow, moving step by step through the phases of analysis, projecting, realization, testing, implementation, and support. This SDLC model includes gradual execution of every stage completely. This process is strictly documented and predefined with features expected to every phase of this software development life cycle model.



4.1.1.1 Feasibility study:

We study to gain an understanding of the current problems experienced through interviews, observations, participations etc. We used the obtained data to determine the viability of the system being proposed in terms of technical, economic and social feasibilities.

4.1.1.2 Design

We create User interface and Database design. It's at this stage that we identified any faults before moving onto the next stage. The output of this stage is the design specification which is used in the next stage of implementation.

4.1.1.4 Coding:

At this stage I started to coding of my part then submit on GitHub. The output of this step is one or more product components built according to a pre-defined coding standard and debugged, tested and integrated to satisfy the system architecture requirements.

4.1.1.5 Testing:

In this stage, we will ensure both individual and integrated whole are methodically verified to ensure they are error free and satisfy customer requirements. We will involve both unit testing of individual code modules, system testing of the integrated product and acceptance testing conducted by or on behalf of customer. We will ensure bugs found are corrected before moving to the next stage.

4.1.1.6 Installation:

In this state I install this application then check the functionalities.

4.1.1.8 Benefits of waterfall model:

The advantages of waterfall development are that it allows for departmentalization and control. A schedule can be set with deadlines for each stage of development and a product can proceed through the development process model phases one by one.

Development moves from concept, through design, implementation, testing, installation, troubleshooting, and ends up at operation and maintenance. Each phase of development proceeds in strict order.

Some of the major advantages of the Waterfall Model are as follows -

- · Simple and easy to understand and use
- Easy to manage due to the rigidity of the model. Each phase has specific deliverables and a review process.
- Phases are processed and completed one at a time.
- Works well for smaller projects where requirements are very well understood.
- · Clearly defined stages.
- Well understood milestones.
- Easy to arrange tasks.
- Process and results are well documented.

4.2.2 Functional Requirements:

This section describes different functional requirements of the system in terms of the functions/features the system should provide.

- 1. Login for Admin (by Admin)
- 2. Registration of Lawyer (by Admin)
- 3. Update details of Lawyers (by Admin)
- 4. Delete Lawyer (by Admin)
- 5. Login for Lawyer (by Lawyer)
- 6. Registration of Clients (by Lawyer)
- 7. Update details of Clients (by Lawyer)
- 8. Delete Client (by Lawyer)

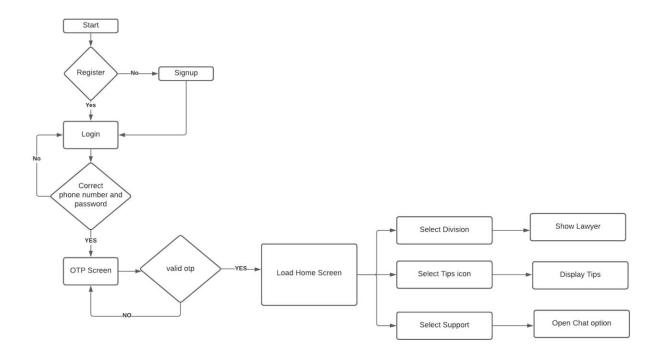
- 9. Add case details of Clients (by Lawyer)
- 10. Update case details of Clients (by Lawyer)
- 11. Delete Cases of Clients (by Lawyer)
- 12. Login for Client (by Client)
- 13. View/ Download Case Details (by Client)
- 14. Registration as Visitor of Website (by Any New User)
- 15. Finding Lawyers (by a registered Visitor)

After being logged in, an admin in this project can make the entries of the lawyers who register with the apps, can update details of lawyers or delete a lawyer. Only after a lawyer is registered by the admin, he can further carry out his tasks with his clients. For the first time a lawyer registers himself, he gets an id and password from the admin which he uses throughout the time. After being logged in, a lawyer can register his clients, update client's details, delete a client and can store all the case details of his clients in the database. He has the previous details of the case which can help him plan for the further evaluation of the case. Also the cases that have been completed accidentally (due to withdrawal, death, etc), or those have been solved by him are stored in the database which he can use as a reference for the future cases. A lawyer can also update the case details of his clients and can also delete some cases if desired. After being logged in, a client can see his case details and all the transactions carried out during the case. He can also find out new lawyers through this apps. New visitors can't visit this apps.

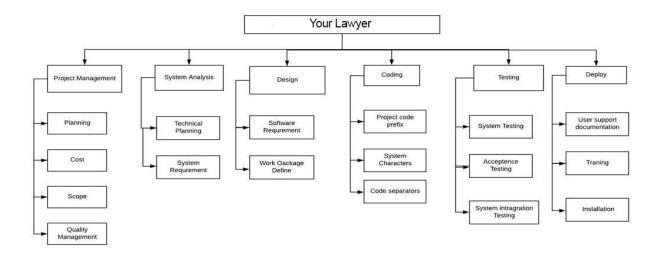
4.2.3 Non-functional Requirements (NFR):

- 1. The system should not disclose any private information or message to anyone else.
- 2. The system will have backup server.
- 4. User must have easy password accessible to the system.
- 5. The system will have bug report system for user.
- 6. The system should have two step authentications for login.
- 7. The system will have small development working on solving bugs reported by the user.

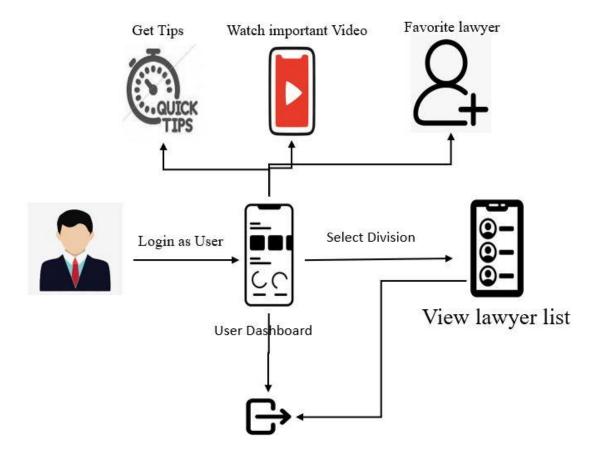
4.2.4 Data Flow Diagram:



4.2.5 Use Case Diagram:



4.2.6 Rich Picture



4.3 Design:

At this stage we will make an overall design of the system architecture and physical design which includes User interface and Database design. It's at this stage that I will identify any faults before moving onto the next stage. The output of this stage is the design specification which is used in the next stage of implementation.

Internship experience & observation details

In Aveneur Solutions I have worked as a full stack software developer. During my internship program my job performance was an important issue for myself as well as for the company. It was a challenging task for me to perform perfectly. Throughout the three months internship period first month was my training period. In the first month my learning was perfect to work in field. From the second month I have started field work as well as the office task. I have managed of average 10-14 days' work in every month for the company which was as impressive as a new employee for an IT firm. My supervisor was very pleased for my work and depending on me he recruited five new developers in the firm to doing work timely and efficiently. There was some lacking in my work too.

5.1 Job responsibilities:

As already mentioned, the company caters to the needs of clients in majorly three areas namely, website development services, software development services, and mobile development services. I was absorbed in mobile development services. My role was as an android application developer. Under this role, I was to work in a group of two for developing two applications that could be run on an android phone. The domain chosen by my group was applications development.

For the first two weeks, we were made to learn/ master the coding techniques of flutter android application development relevant to our assigned work. During this period, we were assisted a lot by our mentors at the firm. After that, we were assigned the actual application to be developed for the next four weeks.

The reason for choosing android application development is that the field provides a lot of scopes to grow. Android Development tools are open source and hence an individual can flourish as an android programmer up to the full extent. Another reason is that the field is relatively new in the industry and the trends show that there is a heavy need of android programmers in the market. Yet, another reason is that the programmer can easily put up his/her product in the android app market and can earn a good deal of supportive income.

Project as Engineering Problem Analysis

6.1 Sustainability of the Project/Work

Now a days, In Bangladesh most of the people from all classes drastically use smartphone. Smartphone and internet make people life easier. People are now searching for an easy solution of every situation which reduce the daily life hassles. So, people get more dependent into online based solutions. The growth and analysis suggest that the use would increase even further in the future. This change in the social atmosphere, it is safe to believe that system is highly sustainable. It is very likely that in the near future people would be more interested to meet their everyday needs through online activities. The app advocates for such a change, securing it sustainability.

6.2 Social and Environmental Effects and Analysis

We all know how busy life leads a lawyer with a tight schedule. They can't plan anything properly for their tight schedule. If they able to know before, how many Clint are coming, what is the time line of appointment, they can utilize their time more efficiently. They can make proper plan for their personal life according to the schedule. The most important effect of the lawyer System on a social level is its time-saving quality. Time is priceless and valuable and the usage of this app make user life hassle free. On an individual level, the effect has a great positive outcome. The app has also positive effect on the environment as well. It will make our environment clean and less polluted.

6.3 Addressing Ethics and Ethical Issues

The Appointment System does not have any ethical threat or risk. The Clint and lawyers are required to provide some general information during their registration. The client needs to provide some basic information for their appointment. All these data are stored safely and securely in database. Only registered user with authentication can access the information. The privacy of the information is strictly maintained.

Internship outcome & issue analysis

7.1 Problems & challenges faced in the workplace:

During Internship period in Avenours Solutions. Those challenges were new for me. When I selected for viva. I was little nervous in this time. But when I talked to the CEO of the company, I feel confident. When I hear that they are also working on android applications development. I interested on it. Because they use flutter framework for build android app. First few days I have faced some challenges. But I have taken this challenging time as a lesson of my life. These difficult situations and new experiences will help me to sustain in the corporate world in future.

In my opinion 3 months are not proper for adapt and understand the overall work flow and operations of a company which is involved with so many different projects and different department. For lockdown our office in closed since last of April. In this time, we work from home. It was little challenging but we done us in online. In this case we use Discord and google classroom for meeting. Is was less time consuming but some problem was there.

It was very difficult for me to maintain work progress as like as other team members. Since they are very experienced and good at their work. I had to work like a full-time employee as my office time was 9:30 am to 5:30 pm. Since I don't have any experience that's why it was challenging for me but I enjoy it.

My work skill has improved day by day. My supervisor Mr Ashikur Rahman Rohan helps me lot to knowing the working environment. In free time I learn flutter from online. When I face problem instant I discuss with my supervisor. That helps a lot to learn Flutter.

7.2 Analyzing of the issue(s) based on relevant theory:

Object Oriented Programming (OOP)

Procedural programming is about writing procedures or methods that perform operations on the data, while object-oriented programming is about creating objects that contain both data and methods.

Object-oriented programming has several advantages over procedural programming:

OOP is faster and easier to execute and it provides a clear structure for the programs. OOP helps to keep the Flutter code DRY "Don't Repeat Yourself", and makes the code easier to maintain, modify and debug. OOP makes it possible to create full reusable applications with less code and shorter development time

Software Engineering:

Software engineering is defined as a process of analyzing user requirements and then designing, building, and testing software application which will satisfy those requirements. This course helped me to understand my work methodology, project as a product, designing and testing. Database Management: A database management system is a course that makes which is about to organize data in a database. The functions of a DBMS

include concurrency, security, backup and recovery, integrity and data descriptions. The knowledge of database helps me to store, filter, manage and organize data efficiently.

System Analysis and Design:

System analysis and design deal with planning the development of information systems through understanding and specifying in detail what a system should do and how the components of the system should be implemented and work together. During my internship, system analysis and design course helped me to prepare business plan requirement, various diagram.

Database Management:

A database management system is a course that makes which is about to organize data in a database. The functions of a DBMS include concurrency, security, backup and recovery, integrity and data descriptions. The knowledge of database helps me to store, filter, manage and organize data efficiently.

Web Application and internet:

Web application and internet deals with basic background, terminology, fundamental concepts and hands-on experience with the various technologies that are needed to build modern full-stack web applications. Although the World-Wide Web was initially conceived as a vehicle for delivering documents, it is now being used as a platform for sophisticated interactive applications. Applications that provide instant access, automatic

upgrades, and opportunities for collaboration on a massive scale. Creating full stack web applications requires different approaches than traditional applications and involves the integration of numerous technologies.

Data Structure:

In computer science, a data structure is a data organization, management, and storage format that enables efficient access and modification. The knowledge of this course helped me a lot to understand the effective way of storage format to access easily for the user.

7.3 Recommendation:

After completing the internship in Avenour solutions I have some recommendation for this training and development in this company. These are

- Promotional activities: Though they work with so many projects and which are more than enough for this company. Still my recommendation will be more focused on promotional activities.
- Emphasize training as an investment: While the initial costs may seem high, stress within your company that training is a long-term investment in the development of your staff.
- Maintenance of the systems: Since Aveneur work for many systems for their operation and clients, so they need watchful maintenance of the systems by the responsible management.

- Maintain standard quality of products: They should maintain standard quality of products and services.
- Target your needs: Identify the specific skills you need to improve and the timeframe within which you'd like to meet your training goals to provide the optimal payback.
- Encourage a learning culture: Express to all employees that your organization cares about enhancing their skills and wants every worker
 whether training or not to remain competitive within their skill set.
- Select high-quality instructors: Make sure the trainers hired are professional educators and that their materials can serve as valuable resources in the future.
- Make it a continuous process: Don't limit your training to new employees, and try to bring in as many workers as you can who would benefit from additional training.
- Track the results: A training program won't be effective unless you
 monitor its progress. Choose a metric, such as productivity or profit, to
 help determine the return on investment for your training efforts and
 establish concrete results.

Conclusion & implication

It has been a great opportunity for me to work as an android app developer during internship at IT department of Aveneur Solutions. This three-month internship program was like a step stone to my carrier within the work advertise. Amid internship I learned numerous vital information almost IT division. The internship program made a difference me to pick up vital information almost how the IT segment forming in our nation. Internship at AS instructed me how to handle distinctive client, later program related advances, regularly utilized advances and best utilized of this innovation. This program gave me a clear thought around proficient life as an android developer, what I must confront and how to handle those circumstances. During internship, I tried to cover my weakness about app development and tried to become a better full stack software developer.

Working on lawyer mobile application our boss gives separate task of our members.

This application helps general people to find a lawyer easily and also in location-based lawyer can easily found. At the same time a lawyer can easily signup and write his/her details so that any kind of people can easily found them. If any customer has any complain they can easily complain in the complaint section.

Bangladesh is a regenerative country, which is growing, making its presence in the global forum. Moreover, it is one of the countries that are looked upon as the next growth center. So, let us be conscious about the fact that there is a regenerative Bangladesh, creative Bangladesh, path breaking Bangladesh. Hopefully IT sector is the next opportunity for Bangladesh.

References

References

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- https://dart.dev/
- Rap Payne, Beginning App Development with Flutter

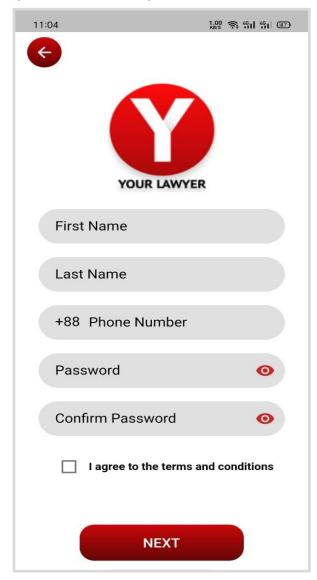
Appendix

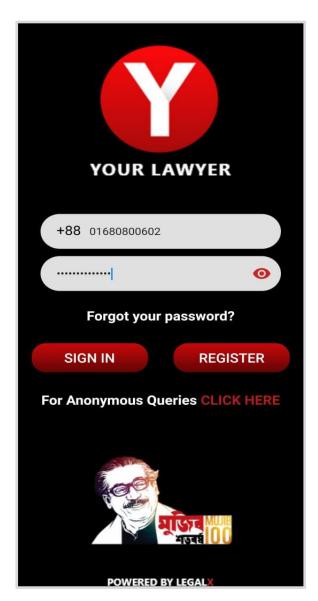
Appendix A (Daily Task)

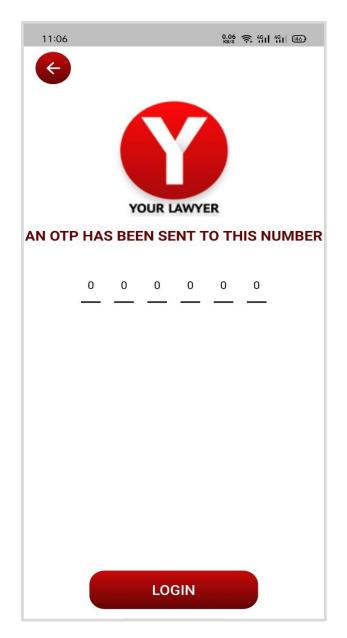
DATE	TASK	
28/2/2021	Get internship Offer letter	
2/3/2021	Joining day for Aveneur Solutions and familiar with the working environment	
7/3/2021	Learn Flutter documentation	
10/3/2021	learned about widget, child, container, column, row in flutter	
15/03/2021	face some problem and discussed with senior	
21/03/2021	Learn Provider package in flutter and A general idea of JWT authentication and its integration with flutter	
25/03/2021	Complete first task (Login and Auth in Flutter)	
28/03/2021	Starting Project: Read project requirements of "Lawyer App"	
4/4/2021	Design UI	
6/4/2021	Made Home page of app	
8/4/2021	created navigation for pages	
11/4/2021	I faced so many errors and problem because of their version change and upgrade, I tried to fix them	
13/4/2021	Fix those design and submit for checking	
15/4/2021	Read api documentation	
18/4/2021	I discussed with senior, they help to learn api documentation	
24/4/2021	Complete Homepage backend	
6/5/2021	Complete lawyerPage backend	
12/5/2021	Submit my work and they merge it with their project	
17/5/2021	And They tested it along with our team, gave me feedback. They were satisfied with my work, all the functionality of this app run smoothly	

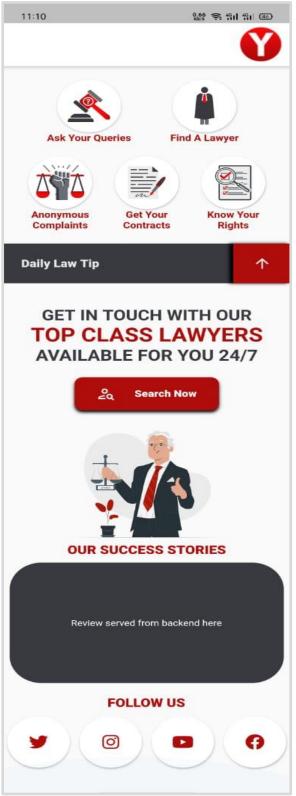
Appendix B

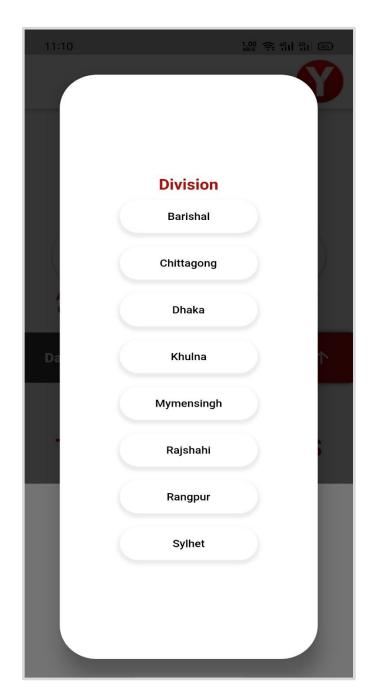
(UI Screenshots)





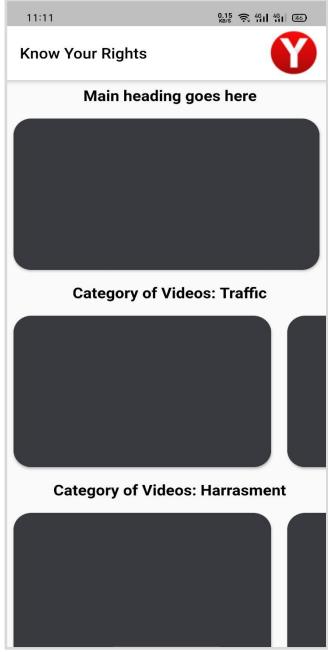


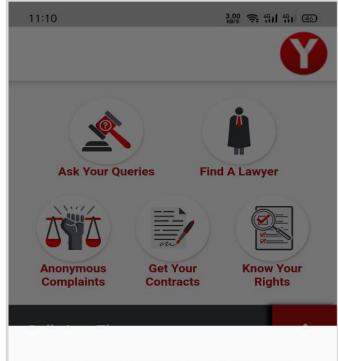












Section 103: Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries, but also the leap into electronic typesetting, remaining essentially unchanged. It was popularised in the 1960s with the release of Letraset sheets containing Lorem Ipsum passages, and more recently with desktop publishing software like Aldus PageMaker including versions of Lorem Ipsum.

