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1. Problem Statement

1.1. Problem Definition

The need for law and enforcement in a country with high population like India is salient. Lawyers playing a major role in this, maintain most of their data as hardcopies. This project is mainly designed for lawyers to make their work more easy and efficient. It is a responsive web application that would provide lawyers with various services that would help them to maintain their documents. The services include a logbook which has details about the cases along with a calendar. The lawyers can also upload and save documents related to their case. It contains formats of model forms and links to online filing. It also provides quick references of common cases and detailed information about laws through e-books. Information about the judicial exams for lawyers is also made available. Furthermore , the web application contains news updates for lawyers, blogs and feedback. This case study will serve as a small hand tool for lawyers to maintain the soft copies of their data.

1.2. Proposed Software Process Model

1.2.1.SDLC

Spiral Model

1.2.2.Why Spiral Model ?

- Ours is a large scale project which is supported
- It is susceptible to frequent changes which are adapted at every stage
- Support is required which is achieved by customer evaluation and product maintenance projects cycle

2. Software Requirements Specification

2.1. Introduction

2.1.1.Purpose

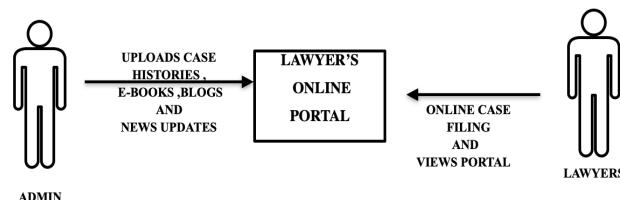
This Software Requirements Specification (SRS) specifies the requirements of the Lawyer's Online Portal , which will be used in lieu of the traditional hard copied judicial information and case histories . This document will be useful for the lawyers and judicial members to get an overview of all specifications and requirements as mentioned by the developer to design the system.

2.1.2.Intended Audience and Reading Suggestions

The document is intended for lawyers , judges and developers . The judicial members of the system will get a clear idea of the software and hardware requirements to be engaged. Developers can utilise the documentation as a resource in developing the project to a new product.The SRS is documented in a simple way such that the reader can understand the flow easily.

2.1.3.Product Scope

In a highly populated country like India , the need for law and enforcement is essential . It involves the maintenance and reference of ginormous judicial laws and case histories . In Lawyer's Online Portal we attempt to provide a handy responsive web application for quick entry and access of judicial history , e-books , blogs and news updates .



2.2. Overall Description

2.2.1.Product Perspective

Fig 2.1 System Block Diagram

The admins can login and file the case details online using the default templates . They may also refer to various digitised law books , case details , blogs and news updates as a user .

2.2.2.Product Functions

In the Lawyer's Online Portal the old case histories and law e-books are uploaded by the admin . The lawyers can file the case details using the templates provided . The blogs , news updates and important exam information are frequently published as a responsive website.

2.2.3.User Classes and Characteristics

2.2.3.1.Admins

They will have the privilege to upload case histories , law e-books ,categorise them , provide access privileges to lawyers , update the blogs , news announcements and judicial examination details

2.2.3.2.Lawyers

They will be allowed to file the case details online using the templates and will be allowed to refer the online repository

Users of this web site will be any mobile user with smart phone or a cell with mobile data facility. The desktop user can also access the same on their desktop or laptop. Further it is reasonable to assume that an average user has knowledge about surfing a website.

2.2.4.Design and Implementation Constraints

Developers of the product should be aware that main feature of the intended product with RDE and suitability with any size mobile screen. Developers should take care of mobility and usability of the website so they can browse the online portal .Developers should also be careful about the privacy of users.

2.3. External Interface Requirements

2.3.1. User Interface

Responsive Web Design is the methodology that recommends the design and implementation of a website that responds to user behaviour and environment based on the screen size, orientation and operating system of their device. From a technology standpoint, the framework consists of a combination of flexible grids, flexible layouts, images and intelligent use of CSS media queries. As the user switches from one device to another (for example, desktop to i-Phone), the website automatically adapts to accommodate for resolution, image size and scripting abilities. This eliminates the need for resizing, panning and scrolling by the user in order to view the website on the new device.

2.3.2. Hardware Interfaces

Since , the system does not have any designated hardware, it does not have any direct hardware interfaces .

2.3.3. Software Interfaces

For the website to interact with mobile / website user or outer world internet connectivity is required.

2.3.4. Communication Interfaces

The communication between the different parts of the system is important since they depend on each other. However, in what way the communication is achieved is not important for the system and is therefore handled by the underlying operating system .

2.4. Functional Requirements

The list illustrated below elaborates the functional requirements of the Lawyer's Online Portal , which will be further used for stimulating the responses , designing the UML , deciding the flow of events and response sequence for the website.

- REQ 1: The system shall provide a registration page
- REQ 2: The system shall provide a login page
- REQ 3: The system shall provide a logbook of cases with a calendar
- REQ 4: The system shall provide online case filing formats and templates
- REQ 5: The system shall categorise common cases
- REQ 6: The system shall provide PDFs of related law e-books

- REQ 7: The system shall provide external links to judicial exams
- REQ 8: The system shall publish blogs , news updates and feedbacks

Further the list can increase as per the feedback received from the website users.

2.5. Other Non-functional Requirements

2.5.1. Performance Requirements

The important aspect of the system is time constraint. In real time it should be performed with minimum requirements. The accountability is a vital feature and this could only be assured if the system is working in full capability. So uninterrupted internet connectivity is needed.

2.5.2. Safety Requirements

The data handled in the system is very vital . The system should always be confirmed to run properly and the data are saved to the database at consecutive intervals. The Internet is an indispensable resource and its availability must be taken care of.

2.5.3. Security Requirements

The security system features from having a login for all the users to access the software. The login details will be used in the system also. So the chances of the software getting intruded are very less.

2.5.4. Software Quality Attributes

- Adaptability & Reusability : The source code of the product is going to be open as this is going to be open source software. It will be free for further modifications and improvements
- Availability & Usability : The system is usable when there is an internet facility
- Flexibility & Maintainability : The system is flexible to changes in the student entries and faculty changes and henceforth is easy to maintain

2.5.5. Business Rules

Illegal duplication of the reports should be strictly dealt with. The administrator should have full details of the user while a user is getting registered to the system.

3. Data Flow Diagram

3.1. Level - 0 DFD



Fig 3.1 Context Level Diagram

3.2. Level -1 DFD

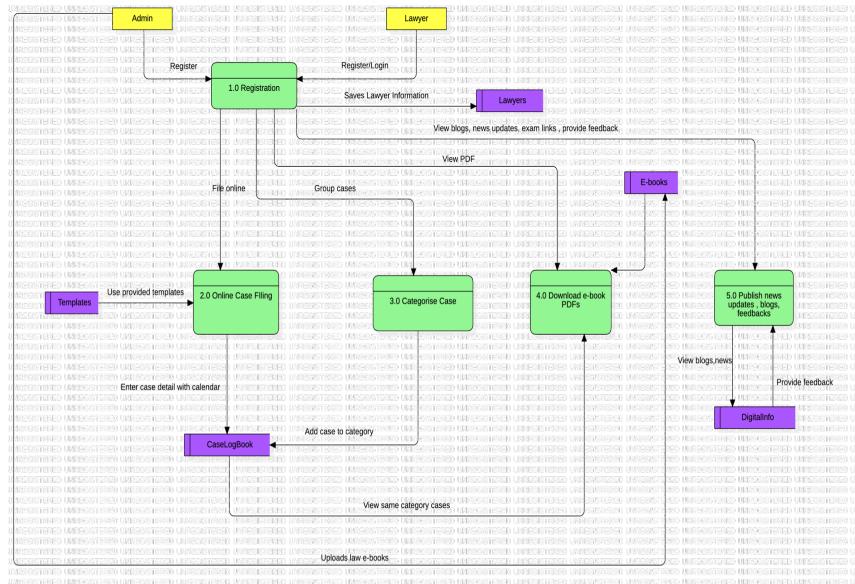


Fig 3.2 Level-1 DFD

3.3 Level-2 DFD

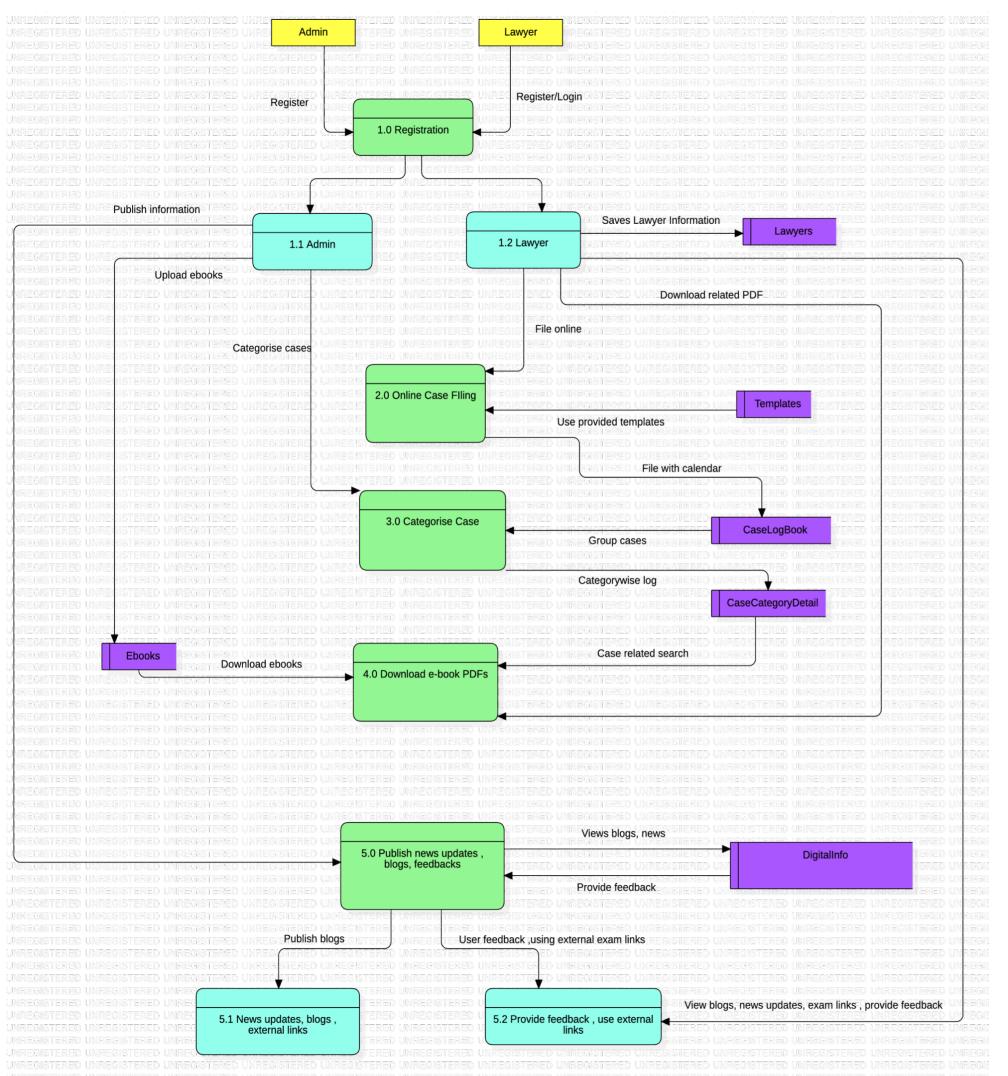


Fig 3.3 Level-2 DFD

3.4. DFD Datastores Description

Table 1 Lawyers

Lawyer_ID	Password	DOB	email_id	address	Specialisation
1	password1	1990-01-01	lawyer1@example.com	123 Main St	Lawyer

Table 2 Template

Template_ID	Case_Category	Format_Link
1	民事案件	民事案件模板

Table 3 CaseLogBook

CaseNumber	Date	ClientDetails	Lawyer_ID	JudgementDetails
1	2023-01-01	John Doe	1	判决书

Table 4 CaseCategoryDetails

CaseCategory	CaseNumber
民事案件	1

Table 5 ebooks

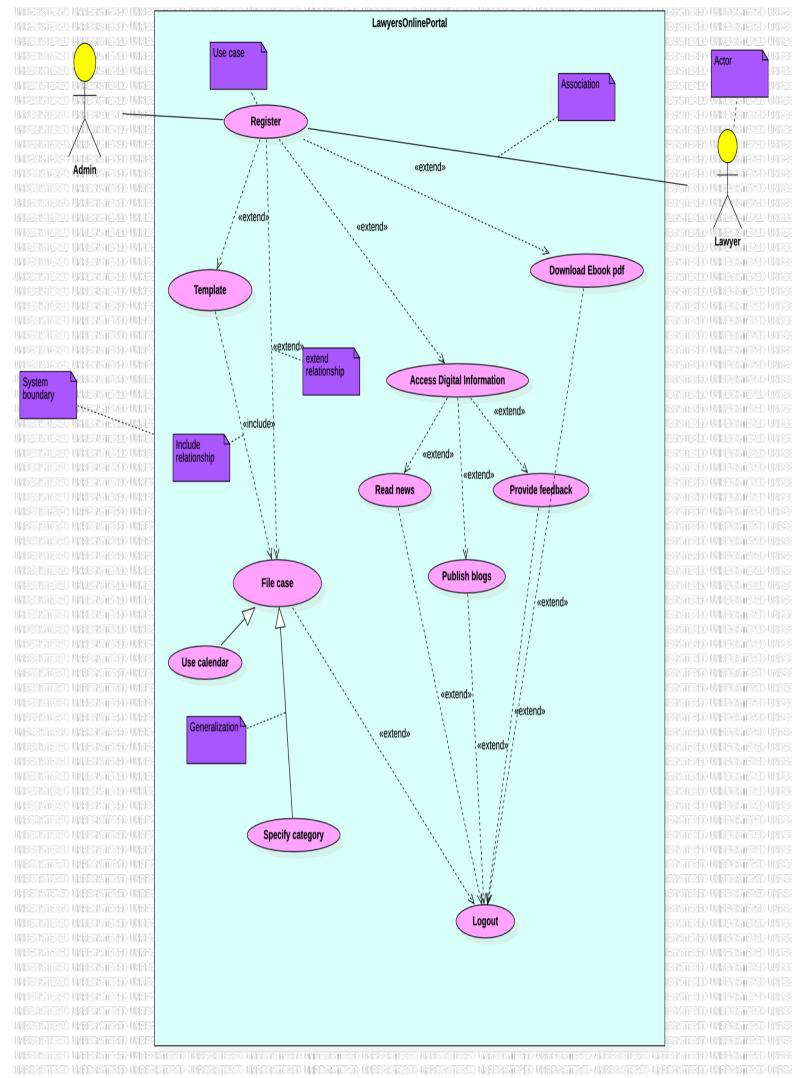
CaseCategory	PDF_Link	CaseNumber	Date
民事案件	民事案件.pdf	1	2023-01-01

Table 6 DigitalInfo

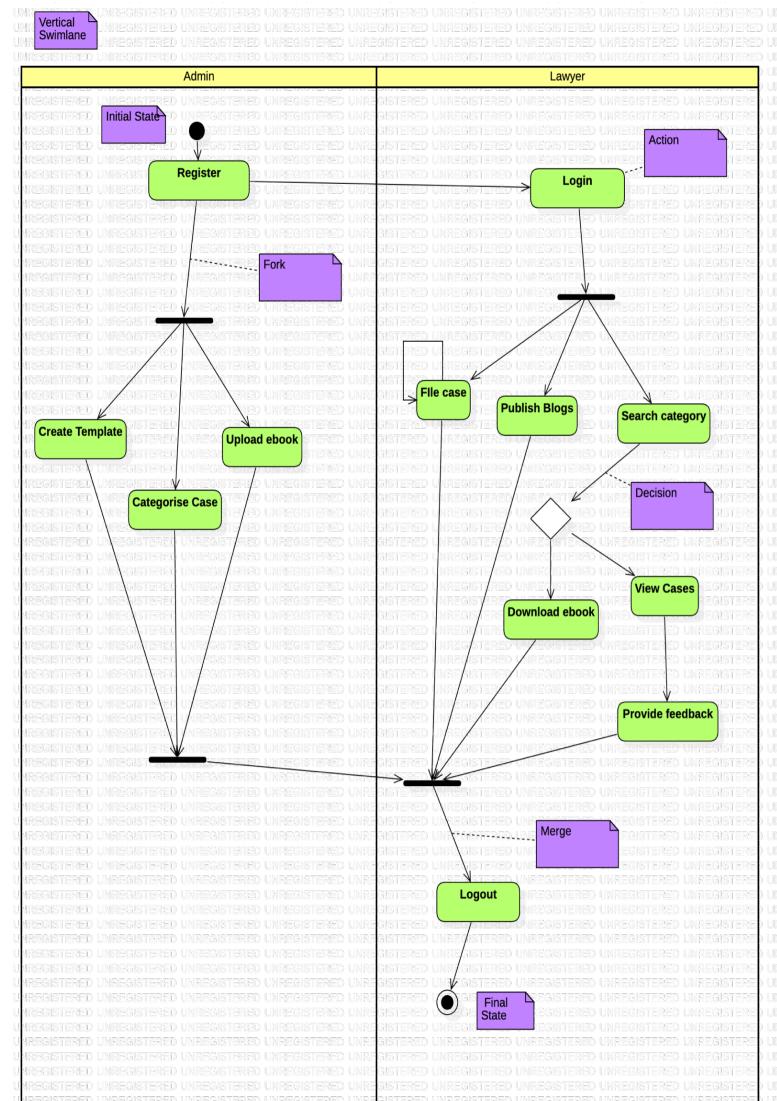
Blog_ID	BlogTitle	B_Author	Feedbacks	ExamLinks	ExamDetails	News	B_Flag	E_Flag	N_Flag
1	民事案件	John Doe	1	民事案件	民事案件	民事案件	1	1	1

4. UML Diagrams

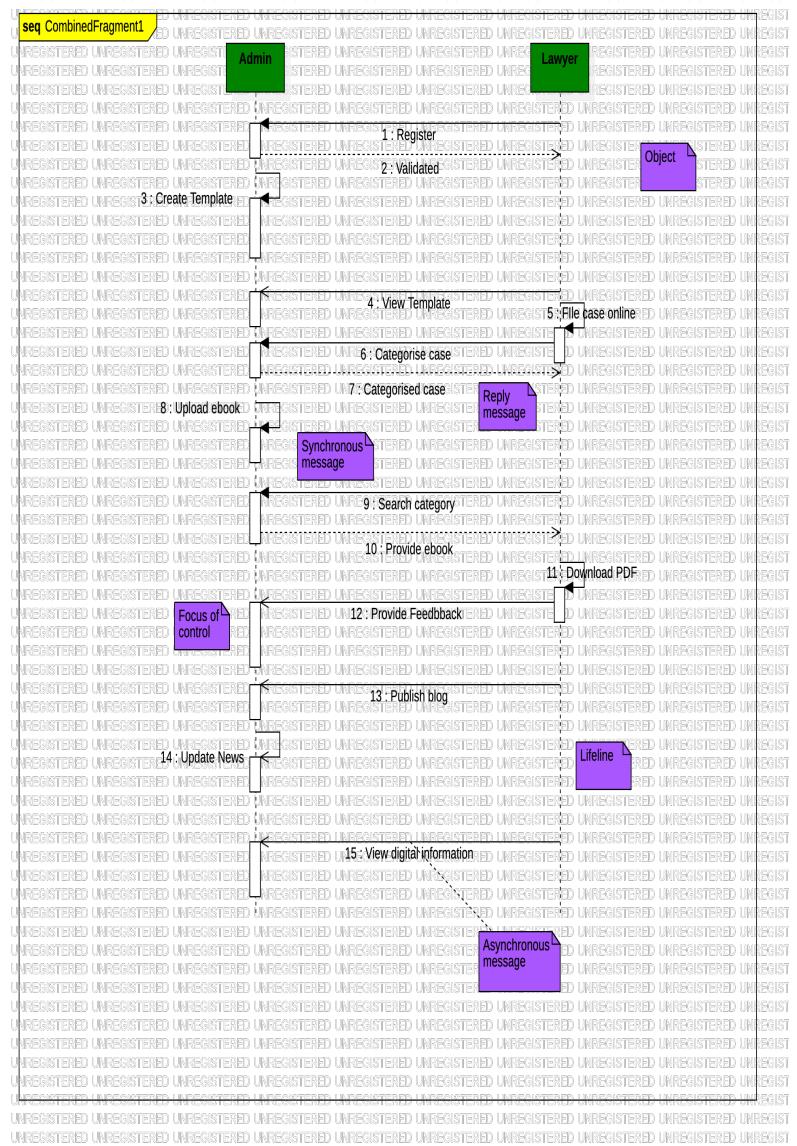
4.1. UML Usecase Diagram



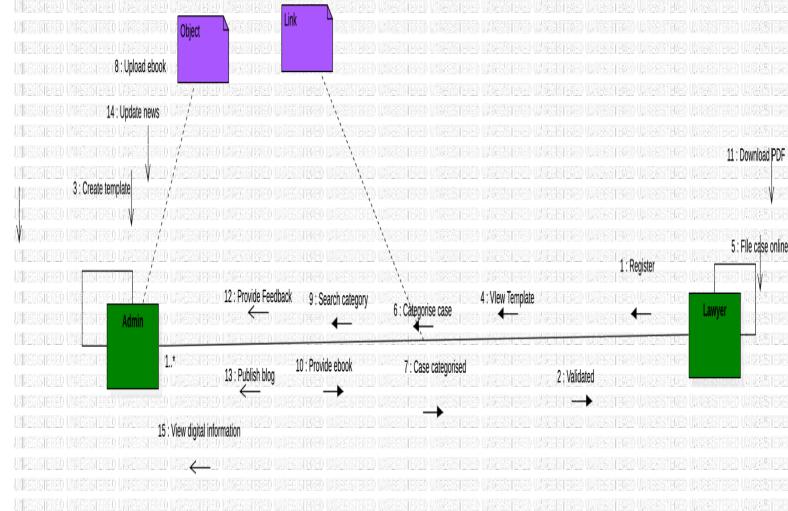
4.2. UML Activity Diagram



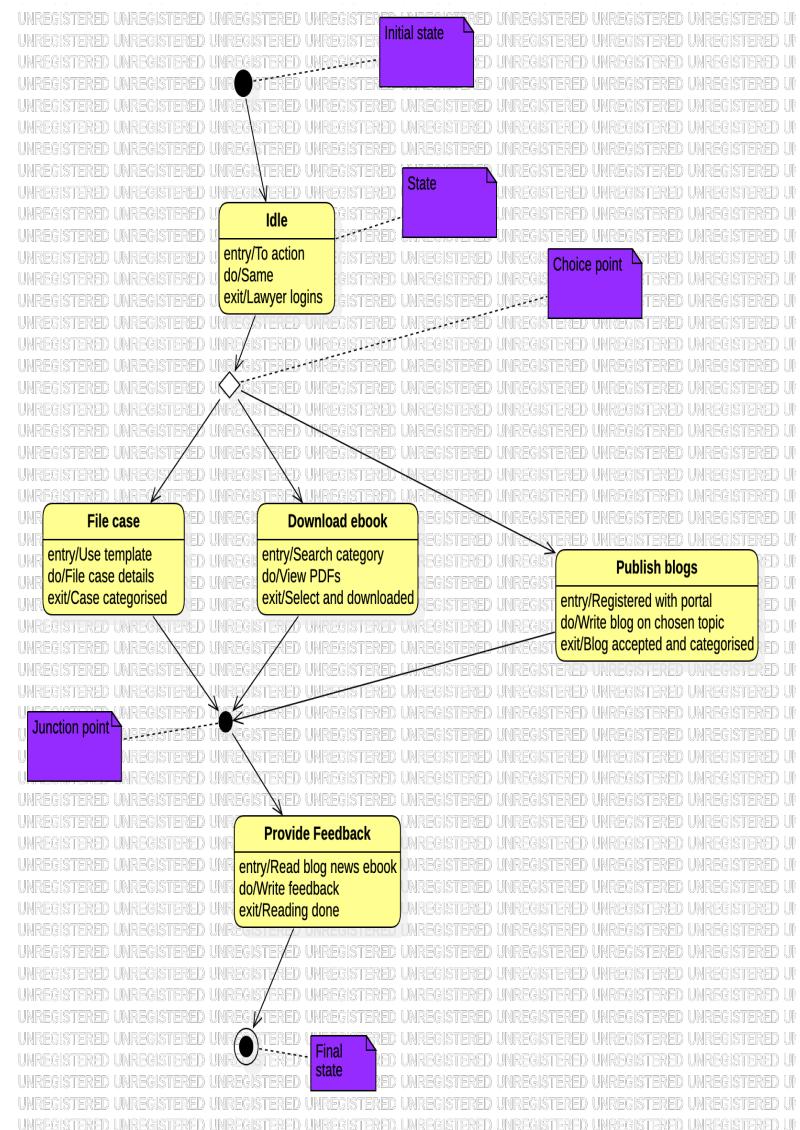
4.3. UML Sequence Diagram



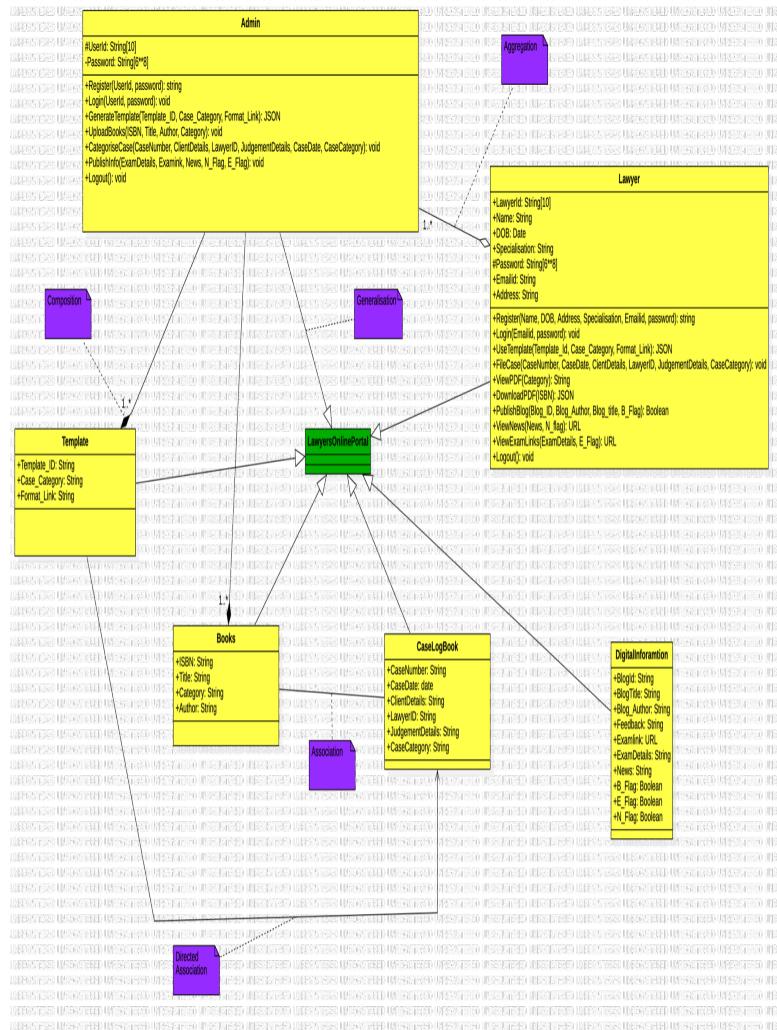
4.4. UML Collaboration Diagram



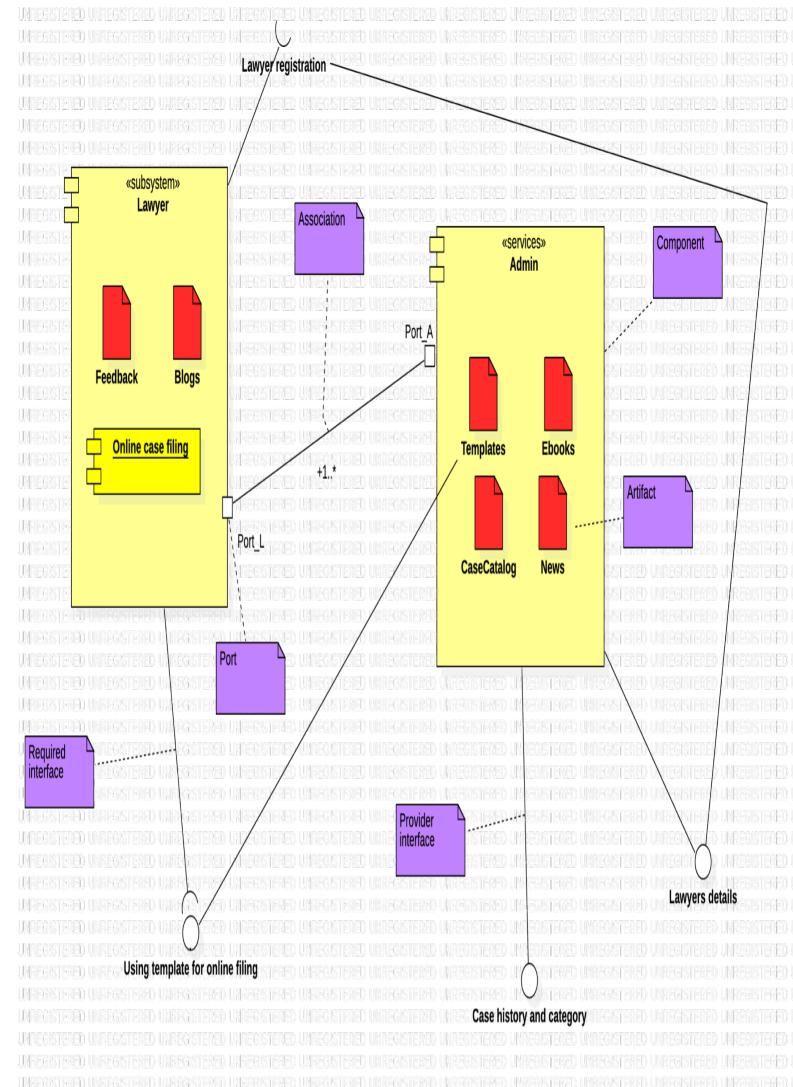
4.5. UML State Machine Diagram



4.6. UML Class Diagram



4.7. UML Component Diagram



4.8. UML Deployment Diagram

