Structure Chart and Design Document

Judiciary Information System

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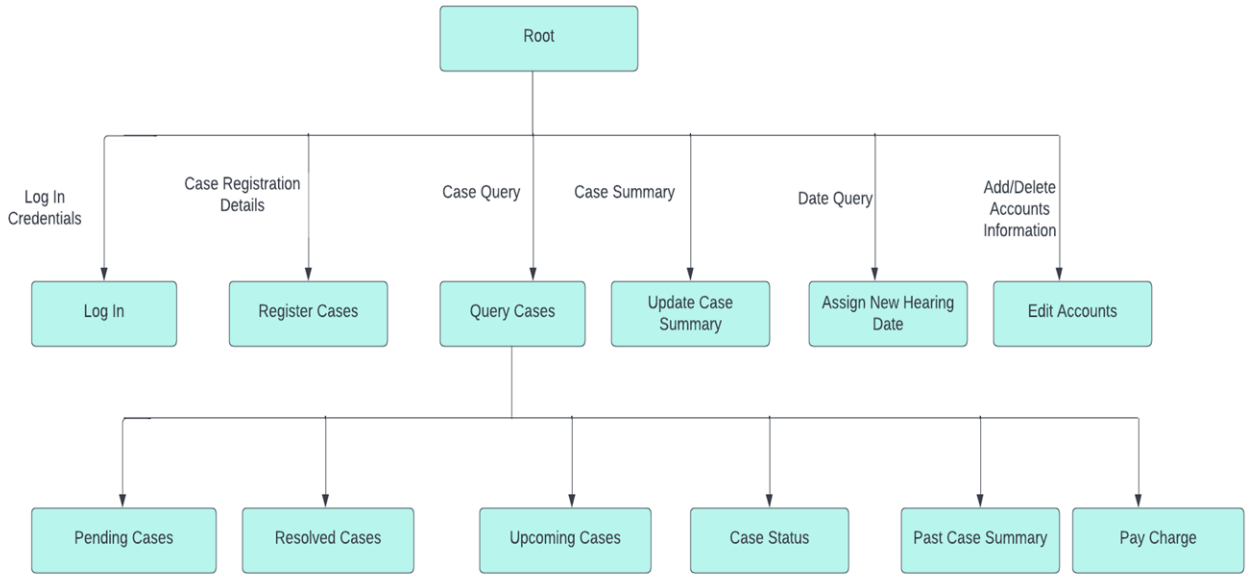
Structure Chart



Design Document

Introduction

The aim of this project is to develop and implement a Judiciary Information System (JIS) to control and allow complete registration of all court case which are related to the court by the domain user thus registrar, who can register, update, delete, and search case and create report. The flow of information provides communication and notification between the courts and public.

The Judiciary Information System is a package to be used by the judges and the lawyers toimprove the efficiency in handling court cases. The system provides information related tothe cases which have been resolved so that judges can get guidance on their judgementand the lawyers can get guidance on their cases. This system is the first of its kind and replaces the old system of browsing through physical documents and papers thus reducingthe maintenance burden.

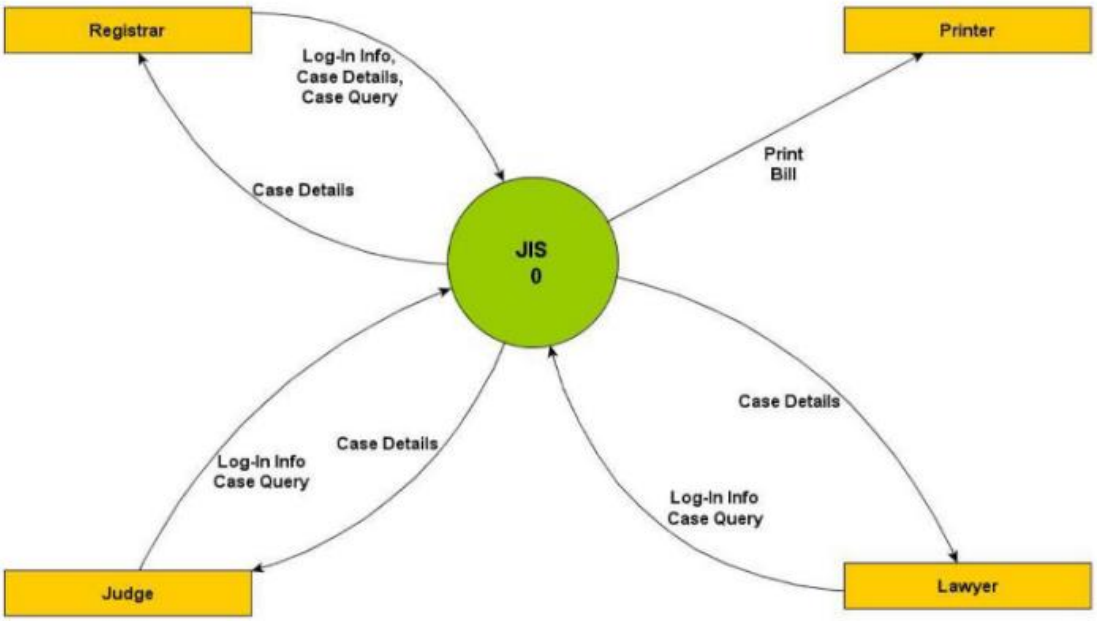
The Judiciary Information System provides help to handle court cases and also to make thep ast court cases easily accessible to the lawyers and judges. The functions of the system include the system providing different type of services based on the type of users[Registrar/Judge/Lawyer].

- The judges would be able to browse through theold cases for guidance on theirjudgement and examining the lines of judgement given previously to similar cases.
- The lawyers would be permitted to browse old cases, but would be charged for eachold case they browse.
- This system allows to search for history of past cases by entering key words.
- The registrar can assign a date of hearing for each case by the help of the computerwhich displays the vacant slots on any working day.
- The registrar can get the information about the currently pending cases, the caseswhich have been resolved, the cases that are coming up for hearing on a particularday and the status of any particular case.
- The registrar is provided with the interface to add/delete the accounts ofjudges/lawyers

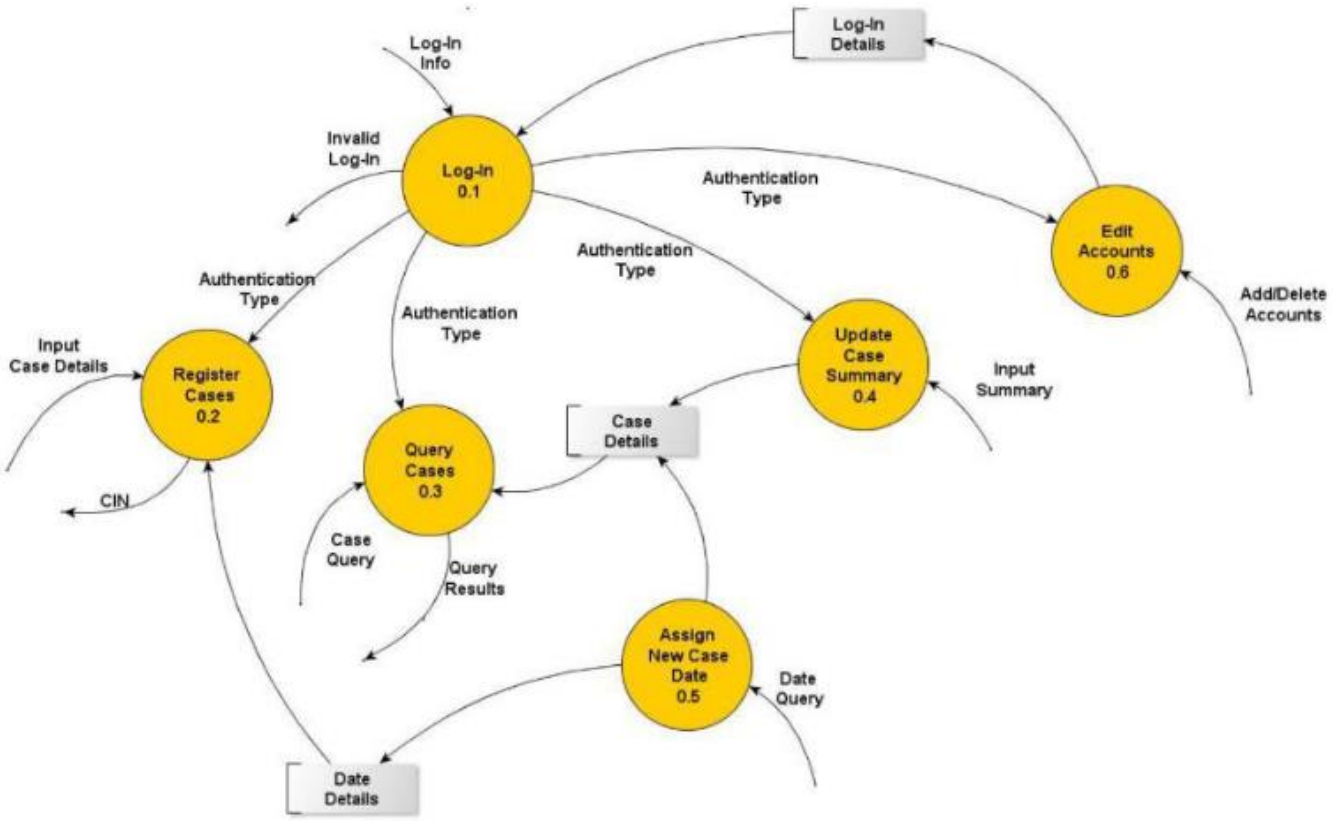
Problem Specification

Data Flow Diagram

Level 0 DFD (Context Diagram)



Level 1 DFD:



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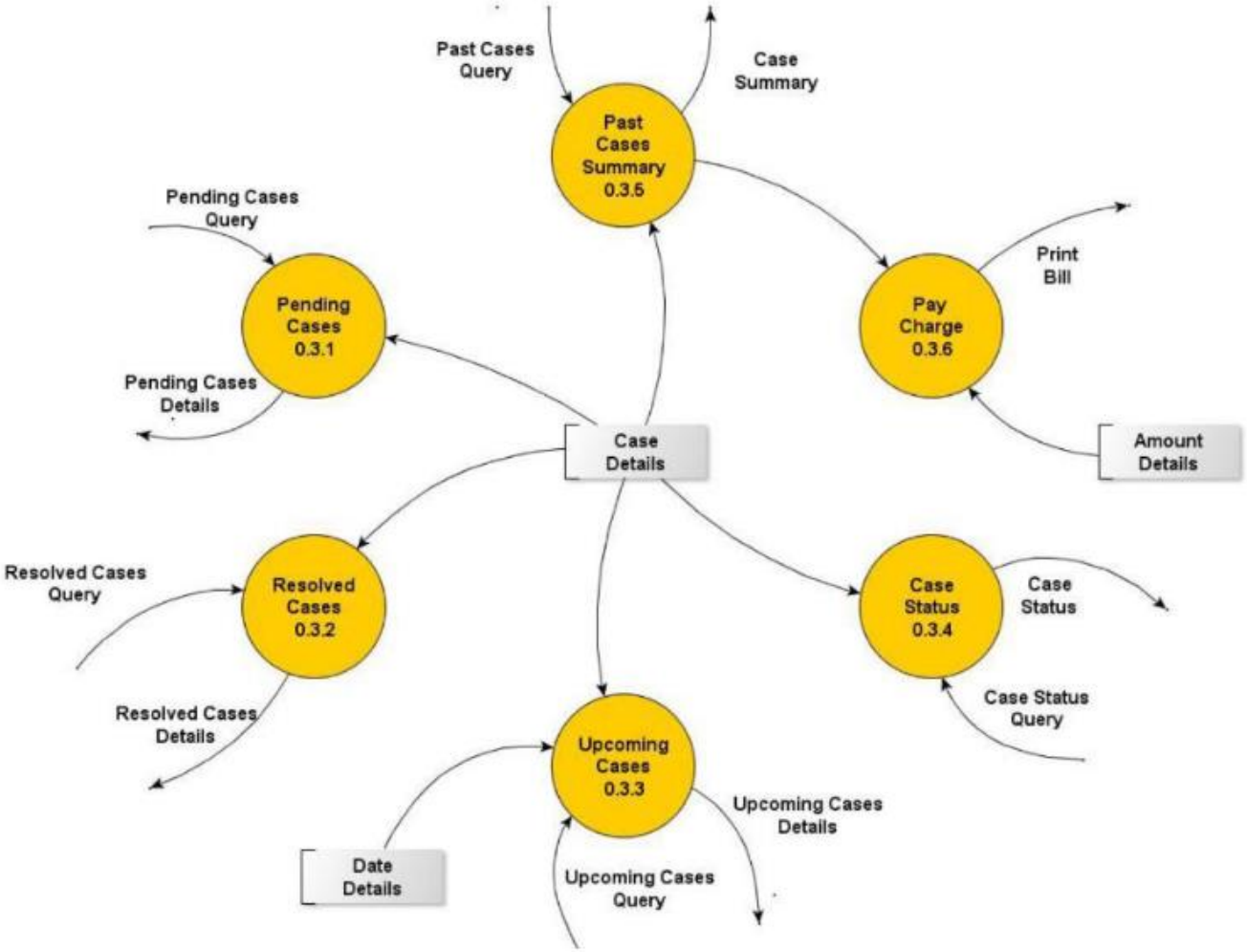
Level 2 DFD:

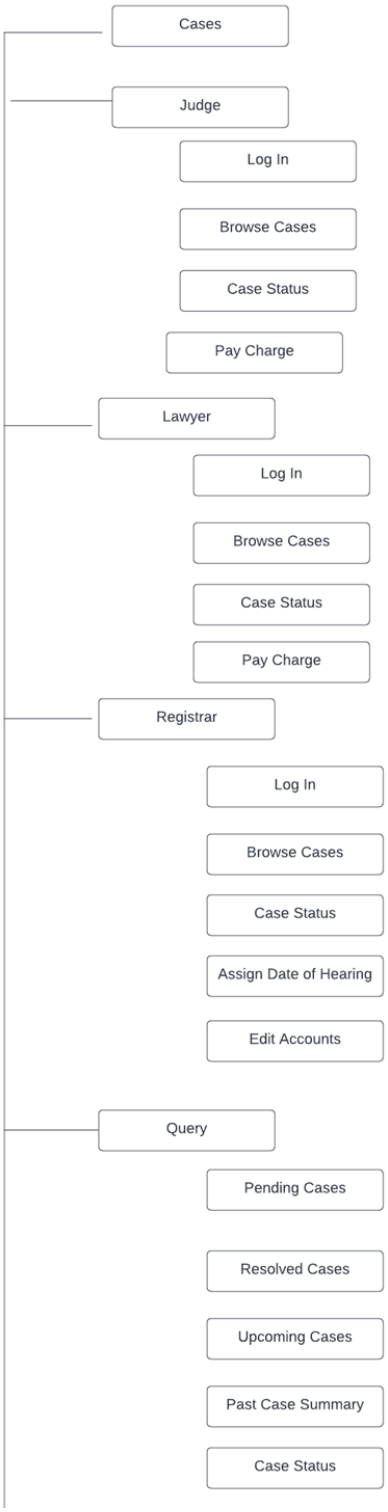


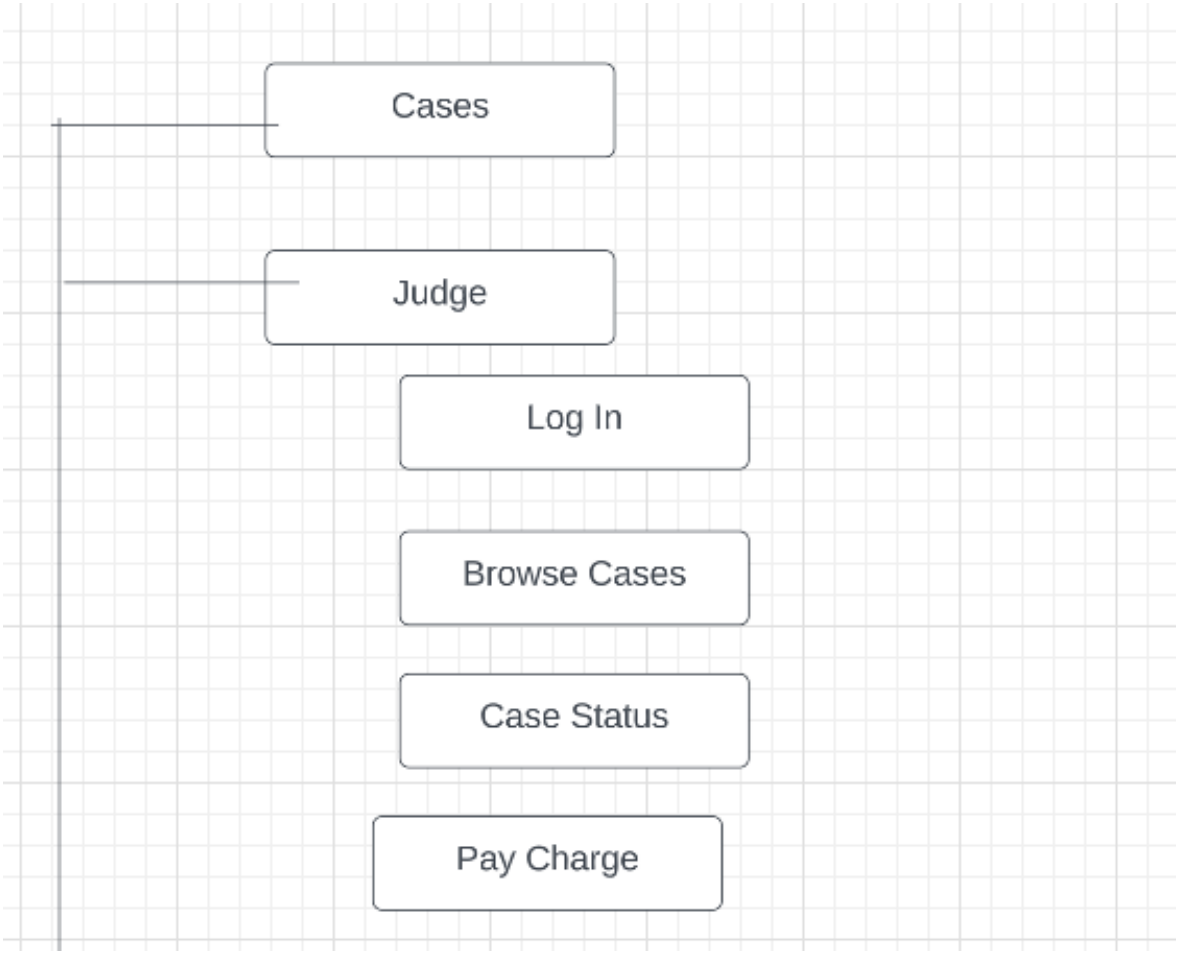
Data Dictionary

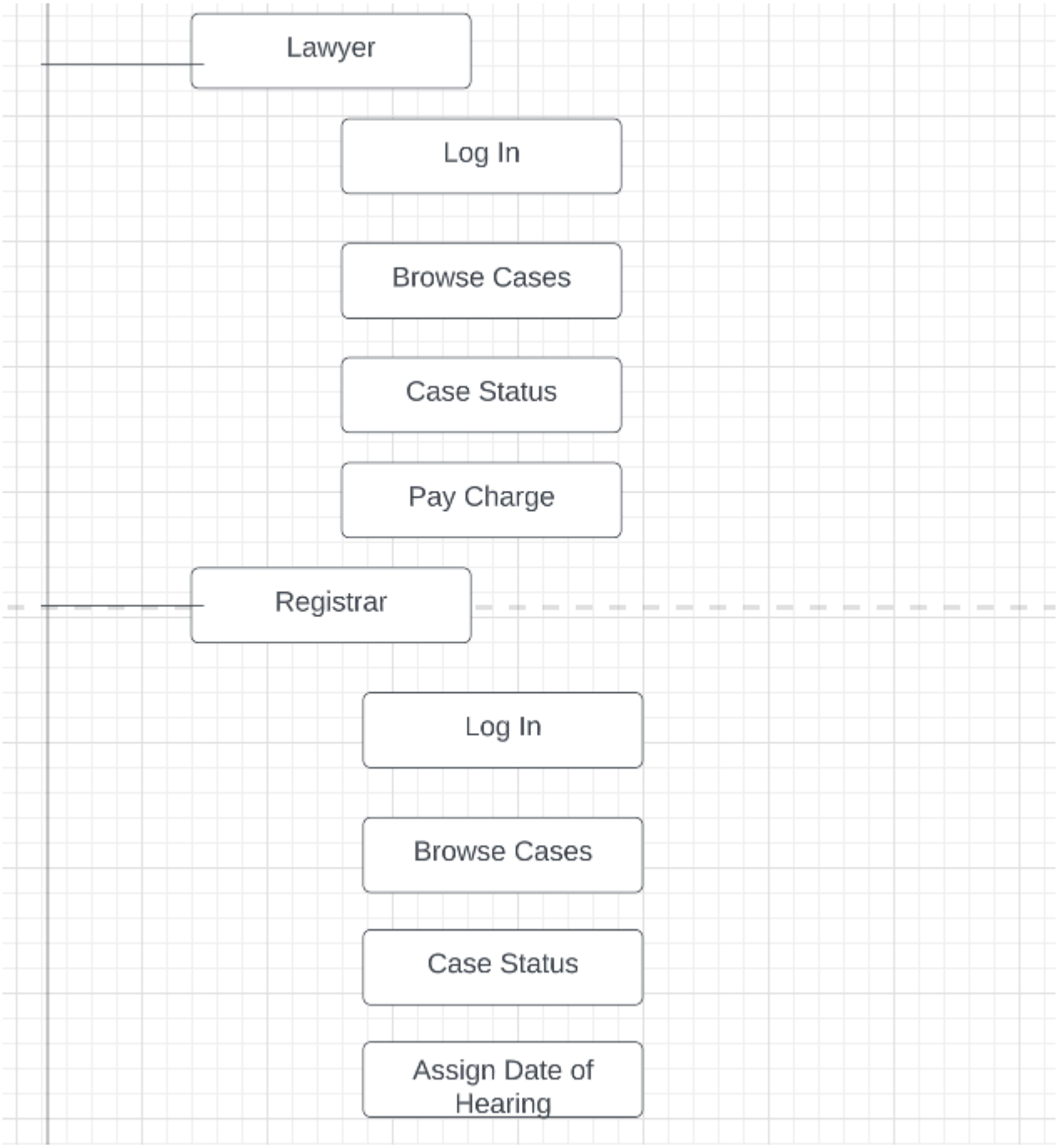
1. Log-In Info : Username + Password
2. Invalid Log-In : Message
3. Authentication Type : [Registrar, Judge, Lawyer]

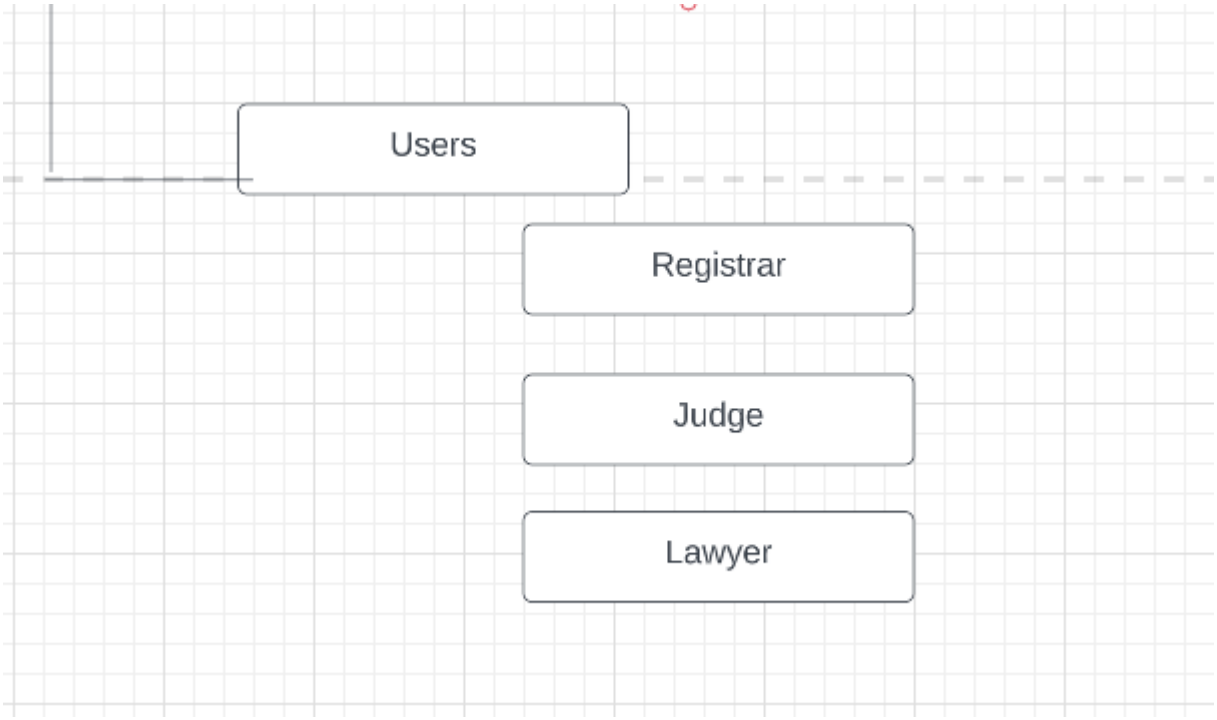
4. Input Case Details : Defendant's Name + Defendant's Address + Crime Type + Crime Date +Crime Location + Arresting Officer's Name + Date of Arrest
5. Case Query : [Pending Cases Query, Resolved Cases Query, Upcoming Cases Query, Case Status Query, Past Cases Query]
6. Query Results : [Pending Cases Details, Resolved Cases Details, Upcoming Cases Details, Case Status, Case Summary]
7. Date Query : Integer
8. Input Summary : String
9. Pending Cases Query : Boolean
10. Resolved Cases Query : Boolean
11. Upcoming Cases Query : Date
12. Case Status Query : CIN
13.Past Cases Query : CIN
14. Pending Cases Details : Case Starting Date + Defendant's Name + Address + Crime Details + Lawyer's Name + Public Prosecutor's Name + Attending Judge's Name
15. Resolved Cases Details : Case Starting Date + CIN + Judgement Delivering Date + Attending Judge's Name + Judgement Summary
16. Upcoming Cases Details : CIN
17. Case Status : [Pending, Closed, Due]
18. Case Summary : CIN + String
19. Print Bill : Lawyer's Name + Amount Charged + Amount Left
20. CIN : Integer
21. Lawyer's Name : First Name + (Middle Name) + Last Name
22. Attending Judge's Name : First Name + (Middle Name) + Last Name
23. Amount Charged : Integer
24. Amount Left : Integer
25. Date : Day + Month + Year
26. Day : Integer
27. Month : Integer
28. Year : Integer
29. Message : String

Software structure


Cases
Judge
Log In
Browse Cases
Case Status
Pay Charge
Lawyer
Log In
Browse Cases
Case Status
Pay Charge
Registrar
Log In
Browse Cases
Case Status
Assign Date of Hearing
Edit Accounts
Query
Pending Cases
Resolved Cases
Upcoming Cases
Past Case Summary
Case Status


Cases
Judge
Log In
Browse Cases
Case Status
Pay Charge


Lawyer
Log In
Browse Cases
Case Status
Pay Charge
Registrar
Log In
Browse Cases
Case Status
Assign Date of Hearing



Module Specifications

1. Log-In:

a. Registrar Log In

Brief Description:The Registrar logs in the system and inputs the details of the case.
Input: The Registrar logs into the system by selecting the Registrar Log-In option. The defendant's name, defendant's address, crime type, date of crime, place of crime, name ofarresting officer and the date of arrest for each case are entered by selecting the Input CaseDetailsoption.
Processing: The system opens the file which stores the log-in details of the users andmatches it against the input.
Output: The computer automatically generates a unique case identification number (CIN) foreach case.

b. Judges Log In

Brief Description:This function allows the judges to log into the JIS and browse through the previous casehistory to get guidance on their decisions.
Input: The judges log into the system by selection the Judges Log-In option and can selectthe previous cases by selecting the Resolved Cases option and entering key words like their CIN.
Processing: The system opens the file which stores the log-in details of the users andmatches it against the input.
Output: The case details of theparticular case are displayed.

c. Lawyers Log In

Brief Description:This function allows the lawyers to log into the JIS and browse through the previous casehistory to get guidance on similar cases.
Input: The lawyers log into the system by selection the Lawyers Log-In option and can selectthe previous cases by selecting Resolved Cases option and entering key words like their CIN.
Processing: The system opens the file which stores the log-in details of the users andmatches it against the input.
Output: The case details of the particular case are displayed. Also, the number of previouscases views for each lawyer is displayed.

2. Assign New Hearing Date

Brief Description:After the unique CIN is generated, the Registrar assigns a date of hearing for the case.
Input: The Registrar selects the Display Dates option.
Processing: The system opens the file which stores the dates and checks if they areoccupied or not and prints the non-occupied dates.
Output: The computer displays the vacant slots on any working day during which the casecan be scheduled.

3. Update Case Summary

Brief Description: If hearing of a case takes place, the summary of the court proceedings are entered, thejudgement is recorded and the case is closed but the details of the case are maintained forfuture reference.
Input: The Registrar enters the summary of the case by selecting Enter Summary option andselects the Display Dates option for new hearing date.
Processing: The system opens the file which stores the case details and the Registrar writesthe summary into that file and closes it.
Output: A new hearing date is assigned for the case.

4. Edit Accounts

Brief Description:This function allows the Registrar to create or delete judges/lawyers accounts.
Input: The Registrar creates accounts by selecting the Create New Account option andentering the name of the judge/lawyer. He deletes an account by selecting the Delete Account option and entering the name of the judge/lawyer.
Processing: The system opens the file which stores the log-in details of the users andcreates/deletes the corresponding user's details.
Output: A username and password is created for every account created and deleted forevery account deleted.

5. Query Cases

a. Pending Cases

Brief Description:This function gives the details of the currently pending cases when queried by the Registrar.
Input: The Registrar queries about the pending cases by selecting the Pending Cases option
Processing: The system opens the file which stores the pending cases details and the Registrar reads from that file and closes it.
Output: The computer prints out the pending cases sorted by their CIN. For each pendingcase, the following data are listed: the date in which the case started, the defendant's name,address, crime details, the lawyer's name, the public prosecutor's name and the attending judge's name.

b. Resolved Cases

Brief Description:This function displays the details of the resolved cases over any given period.
Input: The Registrar queries about the resolved cases by selecting the Resolved Casesoption.
Processing: The system opens the file which stores the resolved cases details and the Registrar reads from that file and closes it.
Output: The computer chronologically lists the starting date of the case, the CIN, the date onwhich the judgement was delivered, the name of the attending judge and the judgement summary.

c. Upcoming Cases

Brief Description:This function lists the cases due on a particular date.
Input: The Registrar selects the Due Cases option and enters the date of hearing.
Processing: The system opens the file which stores the due cases details and the Registrarreads from that file and closes it.
Output: All the cases that are scheduled on that day are listed in the form of their CIN.

d. Case Status

Brief Description:This function displays the status (Pending/Closed/Due) of any particular case queried by theRegistrar.
Input: The Registrar selects the Case Status option and enters the CIN of the case he isinterested in.
Processing: The system opens the file which stores the cases details and the Registrar reads the summary from that file and closes it.
Output: The computer displays the status of the particular case.