



Judiciary Information System (JIS)

SOFTWARE REQUIREMENTS SPECIFICATION

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Problem statement

Judiciary Information System (JIS)

The attorney general's office has requested us to develop a Judiciary Information System (JIS), to help handle court cases and also to make the past court cases easily accessible to the lawyers and judges. For each court case, the name of the defendant, defendant's address, the crime type (e.g., theft, arson, etc.), when committed (date), where committed (location), name of the arresting officer, and the date of the arrest are entered by the court registrar. Each court case is identified by a unique case identification number (CIN) which is generated by the computer. The registrar assigns a date of hearing for each case. For this the registrar expects the computer to display the vacant slots on any working day during which the case can be scheduled. Each time a case is adjourned, the reason for adjournment is entered by the registrar and he assigns a new hearing date. If hearing takes place on any day for a case, the registrar enters the summary of the court proceedings and assigns a new hearing date. Also, on completion of a court case, the summary of the judgment is recorded and the case is closed but the details of the case is maintained for future reference. Other data maintained about a case include the name of the presiding judge, the public prosecutor, the starting date, and the expected completion date of a trial. The judges should be able to browse through the old cases for guidance on their judgment. The lawyers should also be permitted to browse old cases, but should be charged for each old case they browse.

Using the JIS software, the Registrar of the court should be able to query the following:

- (a) The currently pending court cases. In response to this query, the computer should print out the pending cases sorted by CIN. For each pending case, the following data should be 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) The cases that have been resolved over any given period. The output in this case should chronologically list the starting date of the case, the CIN, the date on which the judgment was delivered, the name of the attending judge, and the judgment summary.
- (c) The cases that are coming up for hearing on a particular date.
- (d) The status of any particular case (cases are identified by CIN).

The lawyers and the judges need to refer to the past court cases. The lawyers need to refer these to prepare for their line of arguments. The judges need to refer the past court cases to examine the lines of judgments given previously to similar cases. It should be possible to search for the history of past court cases by entering key words. However, the lawyers should be charged for each time they see the details of a court case to recover some of the computerization costs. For this purpose, it is necessary to provide separate login accounts to the JIS software and keep track of how many court cases each lawyer views. The registrar should be able to create login accounts for the different users (i.e. judges, lawyers, etc) and should be able to delete these accounts

1.0.Introduction

1.1.Purpose

The Judiciary Information System has been designed to cater to the needs of the court and its users. This document provides a comprehensive overview of the system's purpose, features, interfaces, and operation constraints. The intended audience of this document includes the Registrar of the court and the system developers who will be responsible for its implementation. Through this document, we aim to provide a clear understanding of the system's functionalities, including how it will operate and interact with external stimuli. The system has been designed to streamline the court's processes and improve efficiency while ensuring data security and integrity. This document will provide a detailed explanation of the various modules and components of the Judiciary Information System and how they work together to achieve the system's objectives. It will also outline any potential challenges or limitations the system may face and how they will be addressed. Overall, this document will serve as a valuable resource for all stakeholders involved in the development and implementation of the Judiciary Information System, providing a clear roadmap for the system's successful deployment and operation.

1.2.Scope

The software aims to reach out to both court judges and attorneys by giving them the tools to handle litigation that would otherwise have to be done manually.

- The system provides lawyers and judges with easy access to past judicial precedents.
- Judges can search past cases to guide decisions and review previous cases in similar cases.
- Enter keywords to search past court history.
- Lawyers could search old cases, but had to pay a fee for each old case searched.

- Separate login accounts will be set up for attorneys and judges and maintained by the court clerk to maintain attorney fees.
- The system allows registrars to view current pending cases, resolved cases, or details of the status of a specific case.

1.3. References

- IEEE: IEEE Std 830-1998 IEEE Recommended Practice for Software Requirements Specifications. IEEE Computer Society, 1998.

2.0. Overall Description

2.1. Product Perspective

The Court Information System is a software package intended for use by judges and lawyers to improve the efficiency of court cases. The system provides information about resolved cases so that judges can get advice on their rulings and attorneys can get advice on their cases. The system is the first of its kind and replaces the old navigation system in physical documents and papers, thereby reducing the maintenance burden.

2.2. Product Features

The court information system provides assistance in the management of court cases and also makes it easier for lawyers and judges to access past cases. The functions of the system include a system that provides different types of services depending on the type of user [Secretary/Judge/Attorney].

- Judges can skim through past cases to guide their rulings and review previous ruling lines in similar cases.
- Attorneys are allowed to view old cases, but will be charged for each old case they view.
- This system allows you to search the history of past cases by entering keywords.
- The clerk can assign a hearing date to each case using a calculator that shows available positions on any given business day.
- The Clerk can get information about pending cases, resolved cases, cases to be heard on a specific date, and the status of a particular case.
- Clerk has an interface to add/remove judge/attorney accounts.
- Attorneys when they complete the review of past cases, the amount they have to pay is calculated and the attorney and amount information is sent to the payment system.

2.3. User Classes and Characteristics

The users of the court information system are judges, attorneys and administrators who maintain the system. Users are supposed to have basic knowledge of computers, internet and systems. System administrators need to have more knowledge about the internal components of the system and be able to fix minor glitches that can occur due to disk failure, power failure, and other system problems.

2.4. Operating Environment

- The Internet connection must work 24/7 for the server to work.
- This software is platform independent, meaning it works on all operating systems (Windows/Linux/Mac).
- The system running this software must have at least 128 MB RAM for Windows and 64 MB for LINUX

2.5. Design and Implementation Constraints

- Information from all previous cases must be stored in a database accessible to the Court Information System.
- The payment system connected to the Judicial Information System (JIS) and the database used by the payment system must be compatible with the JIS interface.
- User must have correct username and password to access JIS.
- Files containing information regarding previously stored cases must be protected from malicious distortions.

2.6. User Documentation

Proper user interface, user manual, online help, system installation and maintenance guide should be enough to guide the user on how to use the system without any problems.

2.7. Assumptions and Dependencies

- The entire operation of JIS depends on the availability of an Internet connection.
- The user has sufficient knowledge of computers and the Internet.
- The user interface is provided in English, so users are familiar with English.
- The system can access a database of past cases.

3.0. Functional Requirements

This section provides separate use cases for each active reader. Registrars are the main players in this system.

3.1. Use Case 1: Registrar Logs-In the Software

Brief Description:

The Registrar logs into the system and enters the details of the case.

Input: The registrar logs into the system by selecting the Registrar Login option. The defendant's name, defendant's address, type of crime, date of crime, location of crime, name of appointing officer, and date of arrest for each case are entered by selecting the "Enter Case Details" option .

Processing: The system opens the file where the user's credentials are stored and compares it with the input.

Output: The computer automatically generates a unique case identification number (CIN) for each case.

3.2. Use Case 2: Date of Hearing

Brief Description:

After a unique CIN is generated, the registrar will assign a trial date to the case.

Input: Registrar selects the Show Date option.

Processing: The system will open the file where the appointment is stored, check if the appointment is in use, and print the appointment that does not contain any appointments.

Output: The computer displays openings for each business day when cases can be scheduled.

3.3. Use Case 3: Reason of Adjournment

Brief Description:

Reason of adjournment is entered if any case is adjourned.

Input: The Registrar enters the reason due to which the case was adjourned by selecting Enter Summary option and selects the Display Dates option.

Processing: The system opens the file which stores the case details and the Registrar writes the reason into that file and closes it.

Output: A new hearing date is assigned for that case.

3.4. Use Case 4: Summary of Court Proceedings

Brief Description:

Once the case is heard, a case summary is entered, the verdict is recorded, and the case is closed, but the details of the case are retained for future reference.

Input: Registrar selects the "Enter Summary" option and selects the "View Data" option for the new hearing date to enter a summary of the case.

Action: The system opens a file containing case details, the registrar writes a summary to this file and closes it.

Output: The case is assigned a new hearing date.

3.5. Use Case 5: Currently Pending Court Cases

Brief Description:

This feature provides details of current pending cases when queried by a registrar.

Input: Registrars request a pending case by selecting the Pending Case option.

Action: The system opens a file containing details of pending cases, the registrar reads from this file and closes it.

Output: The computer outputs the pending cases sorted by CIN. For each pending case, the following data are listed: case start date, defendant's name, address, crime details, attorney's name, prosecutor's name, and judge's name.

3.6. Use Case 6: Resolved Cases

Brief Description:

This feature shows the details of cases that have been resolved over a period of time.

Input: Registrars request a resolved case by selecting the Resolved Case option.

Processing: The system opens a file containing details of resolved cases, which the Registrar reads from and closes.

Output: The computer lists in chronological order the date the proceedings began, the CIN, the date of the verdict, the names of the judges present, and the summary of the verdict.

3.7. Use Case 7: Cases on a particular date

Brief Description:

This function lists cases that are due on a specific date.

Input: The Registrar selects the Due Cases option and enters the date of hearing.

Processing: The system opens a file containing details of unpaid cases, which the registrar reads from and closes.

Output: Lists all cases scheduled for the day in CIN format.

3.8. Use Case 8: Case Status

Brief Description:

This function displays the status (Pending/Closed/Due) of any particular case queried by the Registrar.

Input: The Registrar selects the Case Status option and enters the CIN of the case he is interested 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.

3.9. Use Case 9: Create/Delete Accounts

Brief Description:

This feature allows registrars to create or delete judge/attorney accounts.

Input: Registrar creates an account by selecting the Create New Account option and entering the name of the judge/attorney. He selects the "delete account" option and enters the name of the judge/lawyer to delete the account.

Action: The system opens the file where the user's credentials are stored and creates/deletes the corresponding user data.

Output: Username and password are created for each account created and removed for each account deleted.

3.10. Use Case 10: Judges Log-In

Brief Description:

This function allows the judges to log into the JIS and browse through the previous case history to get guidance on their decisions.

Input: The judges log into the system by selection the Judges Log-In option and can select the 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 and matches it against the input.

Output: The case details of the particular case are displayed.

3.11. Use Case 11: Lawyers Log-In

Brief Description:

This feature allows attorneys to log into JIS, browse past cases, and get guidance on similar cases.

Input: Attorneys can select previous cases by selecting the Attorney Login option to log into the system, selecting the Closed Cases option and entering a keyword such as her CIN.

Processing: The system opens the file where the user's credentials are stored and compares it with the input.

Output: Displays case details for each case. It also displays the number of previous cases she views for each attorney.

3.12. Use Case 12: Pay Charge

Brief Description:

This function allows the lawyers to clear their dues for viewing previous court cases.

Input: The lawyers can pay for their charges by logging into JIS and selecting Pay Charges.

Processing: The system opens the file which stores the amount details of the lawyers and resets the amount to NIL of the corresponding lawyer.

Output: This connects the JIS to the Billing System which generates the printed bill and resets the charges to NIL for the lawyer.

4.0. External Interface Requirements

4.1. User Interfaces

The interface is basically divided into three main sections, the Registrar's, Judge's and Attorney's interfaces, as follows:

- Registrar

1. Registrar Login: This button is located on the home page of the software. Registrars enter their username and password to log into the system. If the registrar enters an incorrect username or password, you will receive an error message explaining the error.

2. Enter Case Details: Once the registrar is logged into the system, they can select this button to enter all case details. The Registrar selects the Done option to complete entering the details.

3. View Dates: After entering the case details, the registrar selects this button to request that the computer display availability for each business day on which the case can be scheduled. If no appointments are available, a corresponding message is displayed.

4. Enter Summary: After the registrar has logged into the system, they can enter a case summary by selecting this button and entering the summary.

5. Pending Cases: This button will appear after the Registrar has logged into the system. Select this button to enter the CIN and view the pending case details.

6. Resolved Cases: This button will appear after the registrar has logged into the system. Select this button to enter the CIN and view the details of the resolved case.

7. Cases due: This button will appear after the Registrar has logged into the system. He selects this button and enters a date to see cases scheduled for a specific date.

8. Case Status: This button appears after the Registrar has logged into the system. Select this button to enter her CIN for the case and view the status of the case (pending/closed/expired).

9. Create New Account: After the Registrar has logged into the system, they can select this button to create a new account for the Judge or Attorney. Selecting

this button requires the registrar to choose whether to create a new judge account or a new attorney account.

10. Delete Account: After the Registrar has logged into the system, they can select this button to delete an existing Judge or Attorney account. Selecting this button requires the Registrar to choose whether to delete the Judge or Attorney account.

11. Logout: This button will appear when the Registrar has logged into the system. Selecting this button will log the registrar out of the system and display the home page of the software.

• Judge

1. Judges Log-In: This button is placed on the home page of the software. The Judge logs into the system by entering his/her user name and password. If the judge enters the wrong username or password, an error message will pop up describing the error. Also, if his/her account does not exist, then an error message pops up regarding the same.

2. Resolved Cases: This button appears after the judge logs into the system. He/She selects this button to see the details of the resolved cases by entering their CIN.

3. Log-Out: This button appears once the judge logs into the system. On selecting this button, the judge logs out of the system and the home page of the software is displayed

• Lawyer

1. Attorney Login: This button is located on the start page of the software. Attorneys enter their username and password to log into the system. If the attorney enters an incorrect username or password, an error message will be displayed explaining the error. If the account does not exist, you will receive an error message. 2. Cases Resolved: This button appears after the judge has logged into the system. Select this button to enter the CIN and view the details of the resolved case.

3. Pay Fees: After the attorney has logged into the system, they can select this button to pay the fees. He/she will then be redirected to the billing system where he/she can pay the fee

4. Logout: This button appears as soon as the attorney logs into the system. Selecting this button will log the attorney out of the system and display the start page of the software.

4.2. Software Interfaces

- The judicial information system connects to the database via JDBC. Open files needed to perform a particular function.
- Because the judicial information system is directly attached to the JVM, it is platform independent and can run on any operating system.
- A firewall is used on the server to prevent unauthorized access to the system.

5.0. Other Requirements

5.1 Attributes

- Portability: To be portable, this software should use widely available operating systems such as Windows and Linux. This software can adapt to different specified environments.
- Maintainability: Effective maintenance of the software requires careful reading of the provided tutorials and user manuals. This software may be modified to make corrections, improvements and adjustments.
- Performance: Internet connection must be available 24/7 for good performance. Performance is optimal as specific software requirements are minimal.

5.2 Database

- Certain files are required to maintain the details of the court cases for present and future use by the judges and the lawyers.

5.3 Hardware

- A dedicated server in the Attorney General's office for functioning of the JIS.

- The billing system requires a printer to provide printed bills to lawyers as they pay their fees.

Use case diagram

