

Automated Allocation of Case In Judiciary Using Data Science With Iot

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Abstract: Indian judiciary has a long list of pending cases, the major reason being absence of proper communication channel between the applicants and lawyers, other being incapability of paying high fees for renowned lawyers. The proposed system provides a platform for both lawyers and applicants to reach the other end effectively. Lawyers would be verified and users do not have to upload complete details on the system which will enhance privacy as well as security. Once the case and profile of the lawyer match, notification would be sent to both parties and they can communicate and meet to discuss the details.

Keywords: Judiciary, verification, IoT

1. Introduction

In today's world it is difficult to approach a lawyer to file a case and also for the lawyers to approach the people who are in need. This isn't a difficulty for big lawyers but for the new lawyers or the lawyers who are not so famous it is difficult for them to approach people. Same case can be seen from the other side i.e. it is difficult for poor and middle class to approach the lawyers whom they cannot afford.[7]

Few common Problems with existing software's are:

- The software databases are being developed by various developers but those are not being used effectively.
- The information of lawyers is used to create report which does not follow any particular format.
- The software's does not provide any user manual to the end users to provide them support for the proper usage of the software.
- The present software does not provide security check for all the attacks.[4]

2. Previous Work

S.T. Leutenegger, in paper on managing varying workloads discussed how the frequency of access of data item changes in dynamic systems and will re-allocating portions of database dynamically can help in improving the throughput of the system. They implemented Exodus storage manager for working on realistic overheads in managing dynamic changing workloads. Portioning of the incoming requests helped in re-allocation and balancing the load in distributed system.[1] G. Belalem, in their paper on scheduling tasks used two techniques first, was based on the deadlines of the task in the system and second was based on tree based data structure called Virtual Machine Tree. The process of completing tasks was divided into

three sections, First phase is Resource Discovery & filtering, where the jobs are filtered according to their status in the system. Second Phase dealt with resource selection based on certain parameters. Third Phase was submission of task to the selected resource. [2]

W. Guo, in their work on task allocation, used optical grids and used work flow graph for allocating tasks to the resources. The model works by selecting all the unfinished tasks in the system and those specific to a particular parent. Out of all the unfinished tasks the one with the minimum computational time is selected and allocated to resources and the cycle continues until all the tasks are finished in the system. [5] M. Beenstock used the theory of Posner(1993) and Cooter(1983) to analyze the behaviour of judges in Israeli court, to find out whether hiring more judges would help in increasing the throughput of cases in judiciary system[7].

D. Huang, on balancing load on distributed systems, used two algorithms, for selecting tasks with multiple inputs and other one for distribution of read requests across files. The process works in a fashion if the task is more co-related to a new process, than the current process it is working in, it can be assigned to the new process for efficient working. [9]

3. Proposed System

Files or data shared over internet is highly insure though, we had discovered the fastest and reliable way to communicate with each other but the mode of transmission of data is not secure over internet. This leads to the problem which is being faced by most of the people that their data is being stolen or being damaged. This is done by the hackers who know how the internet works and they put their knowledge to use for their own benefits. Some hackers might even do this as a recreational activity, i.e., just for fun. And this, directly affects the normal population and assets of the organization.

We do not have this issue because people do not have to share their original document on our site they just have to fill the basic information regarding them like name, place, age, address, etc and some basic information regarding the case too. All other information will be shared through mails in our site different contact details of the lawyers are given, it depend upon the people in which mode they are comfortable to talk to the lawyer and share their issues.

The main objective of this project will be to help people with their search of lawyers and also help them to reach out to them in a very easy and compatible manner so that they do not face any problem regarding choosing the lawyer for their case. This project is to build a system that will analyze the whole problem of people, check their details to verify whether it is valid person or not and than giving them the effective solution by giving them information regarding the lawyers.

The overall objective of our system is to make resources available from both the sides i.e. from the customer's side as well as from the lawyer's sides. Our system is designed to comprehensively identify, classify and analyze known vulnerabilities in order to recommend the right mitigation actions that should be taken in order to resolve the discovered issues.

Our system provides a complete platform where one can find end number of lawyers for their case and from all most every place of India so that they do not have to travel far to meet the lawyer. By this people do not have to struggle in order to find a right lawyer for their case and by sitting in their homes they can find the lawyers. The types of lawyers we are providing are Public Interest Lawyer, Government Lawyer, Private Sector Lawyer, Trial Lawyer, Immigration Lawyer, Estate Planning Lawyer, Personal Injury Lawyer, etc.

Flow of the System

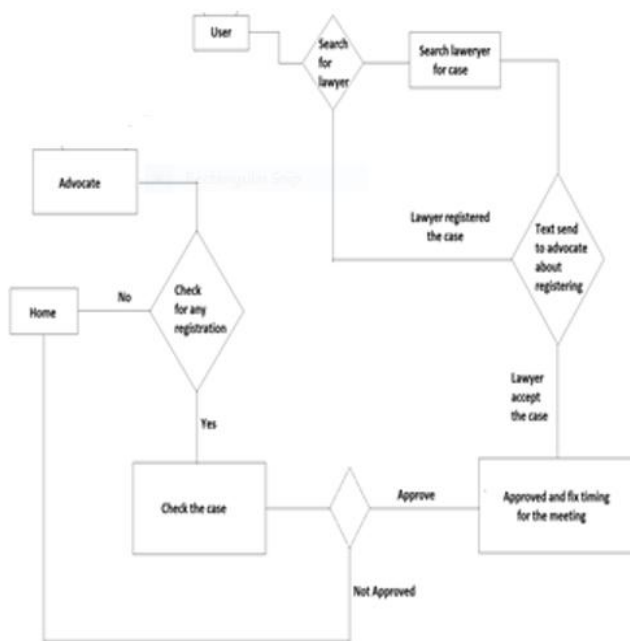


Fig.1: Flow of the working of System

Psuedo-Code

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BEGIN MAIN PROGRAM:
GETROUTE:
IF Username & Password don't match
Display: Invalid user name & Password
ELSE:
DISPLAY: Dasboard
Register: Case Details
IF Lawyer Speciality & User Case matches:
Then: Send Alert using IoT
Details shared between user and lawyer
ELSE:
Place the case in Spool until allocated
END
  
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User

- Registered users will have to provide basic details and select category in which their case belongs
- Once a lawyer in the mentioned profile is available, a notification would be sent to the user
- Details of the case would be provided only to the lawyer

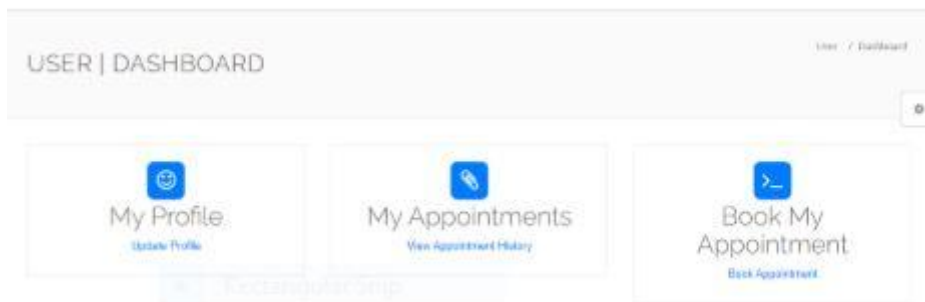


Fig.2: Dashboard of the user

Lawyer

- Registered lawyers would be verified by the administrator
- Verification would be done once, lawyers upload their qualification and experience certificates, which would be visible only to the administrator
- Cases matching with a Lawyer’s profile would be shown on their respective dashboard



Fig.3: Dashboard of the Lawyer

Administrator

- Will verify users and lawyers and handle queries
- Acts as a crossing point between users and lawyers



Fig.4: Dashboard of the Administrator

4. Conclusion

The proposed system would help to streamline the working process of Indian judiciary by quick allocation of cases to lawyers. The process would be beneficial for both ends at lawyers

would not run out of work, and applicants would get justice at a fast pace without paying hefty fees to renowned lawyers. Security and privacy would be preserved as lawyers would be first verified before allocating them cases and applicants do not have to disclose complete details on the system, can interact with the lawyer privately once case is allocated to them.

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