File Tracking System

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Abstract*: To locate the file in a sudden moment is one of the most tedious works today in almost all the organizations. This tedious work itself requires separate manpower in almost all the department of an organization. Problem becomes greatest when the organization has a large number of departments, and the files are moving from one department to another. In some organizations, file moves in or out of the organization as well. Time is wasted in searching the files. Sometimes even after wasting the energy file is not getting within the time limit. Problem becomes worse when the reports of the movement of the files are required. Like the number of files moving within specific time duration, file allocated to any employee and whether the file has been forwarded or not. Seeing all these problems, I have developed a file tracking system for my organization. This system is a web based application system which tracks movements of the entire file within the organization. A hierarchy of the employee has been maintained in this system. This system will keep track of the movements of files from one desk to another inside the department, files moving from one department to another, Letter/File moving from organization to any other organization, the record of file sent from organization through speed post, simple post and many other options. There are different kind of reports can be generated through this system. For example: Document sending/receiving report, Letter sending/Receiving report and many more. It has also a very powerful searching technique for the current location of files. The system also explains about its compatibility with the modern devices.*

Index Terms: *- files, tracking, document, letter, department, report, officer, head, reception.*

I.   Indtroduction

- File Tracking System is to provide flexibility to government departments to maintain huge amount of pending files.
- This system will help all government departments to keep track of every file.
- This web application is designed for Automation of department of industries.
- In this system,we need to process files in hierarchy and proper action should be taken and necessary permissions are given for the requested files.

II.   Objective

The system is to assist the organization in achieving their objective of an efficient, effective, and user friendly file tracking system. This will provide an environment where the user can track the whole life cycle of the movement of the file. We will use the term File which meant to be file as well as letter. Before the current system had been implemented, the document in the organization was being sent manually from one department to another. All the employees were having separate record of the movement of the files in form of hardcopy. They were maintaining a register. There were no records in digital form. Whenever required information about any specific file likes: - the current location of the file, or who has initiated the file. It was almost impossible, and if possible then it was time consuming. The situation became worst for the departments like Administration, Humane Resource, Maintenance and Finance because they have huge number of files. These departments sometimes need information of a file in a moment. So, it was very tedious job to manage track the location of the files. And when the system was implemented, we got the very good feedback. Employees from the entire department were eager to use. In the current paper we will discuss following points one by one: Architecture of the system like the technology, framework, and database and deployment description. Then we will discuss about approach used to develop the system, the organization structure on which the system has been implemented, feature of the system, work flow of the system, time duration for the system implementation, manpower, different milestones, future aspects of the system, then conclusion and at last reference.

Architecture Used In The System

The architecture used in this system is MVC (Model View Controller). A Model View Controller pattern is made up of the following three parts: Model - The lowest level of the pattern which is responsible for

maintaining data. View - This is responsible for displaying all or a portion of the data to the user. Controller - Software Code that controls the interactions between the Model and View.
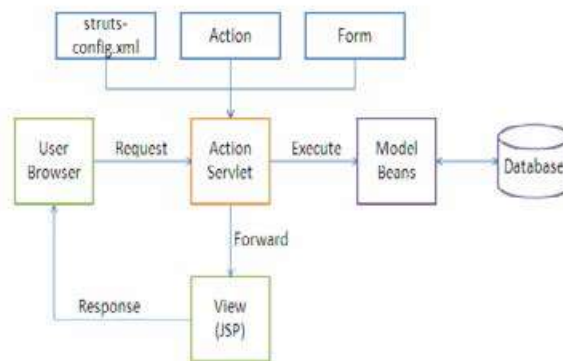
[**Fig 1**: The MVC Architecture]

Benefits Of Using Mvc

Separation of Concern is one of the core advantages of MVC. The framework provides a clean separation of the UI, Business Logic, Model or Data. Parallel development by team is another main feature of the MVC. Technology Used: The technology used to implements the system is J2EE Technology including XML, Servlet, JSP, JDBC, JNDI. We have used Struts latest architecture for the system. Eclipse is being used as an integrated development environment. For database, Oracle 9i has been used in this system. For the development environment, we are using Apache Tomcat server. For the deployment on production, we are using IBM Web sphere environment.

Study Of The System

While implementing the system, at first we have tried to understand the organization structure. This study is important because it will help in near future while we are deciding the type of users and role in the system. In our case, the organizational structure consists of: Department Head, Assistant of Head, and the Reception staff in different blocks of the organization.


Whenever the file moves from one department to another, it is with the prior permission of head of the department. The file is although initiated by the assistant officers. This study of structure of the organization will create a basic flow of the direction to work on. If we think the structure then may be in some organization a little bit of change is there otherwise all organizations are having this type of structure.

Working Of The System

We have given different facility to the users on different levels based on the importance of their hierarchy in the organization. For the HOD, It can see the files which have been sent to it from other departments or sometimes from different organizations. It can forward the file or letter to some other department, or some other organization or to the officer working below it. It can see the different types of reports: The number of letter or files which has been passing through the departments (or through some specific employee also). It can see the history of the movement of a specific file. In this report he can see the date of

initiation of the file, the initiator of the file, other employees through which the file has been moved and the current location of the file.
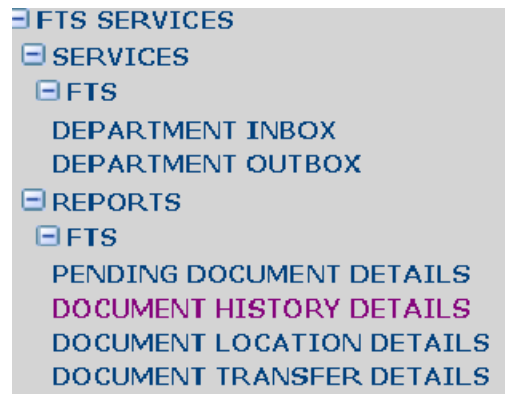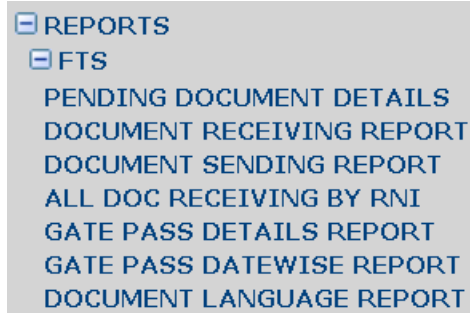

[**Fig 2:** Head of the Department Desk]

The above picture explains the option available to the Head of the department. All the files marked to the HOD will appear by clicking on the Department Inbox link. Whatever file that the current logged in head has been marked to others, will appear in the Department Outbox option. At the Head level, some very important report has been given. For example, the files which are pending at the logged in head side or the history of movements of file including the initiator details. If we talk about the Assistant of the department then this is also very important. All the organization is having separate file for each category of the department. So for the creation of a new file, modification, deletion of file is available at officer's end.
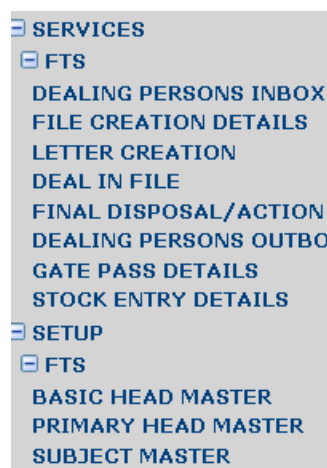
[**Fig 3:** Assistant officer Desk]

Whatever file that has been marked to the officer will be available in the Dealing Person Inbox. File module can be used for basic operations on file. This system has an option to create letter/notes in the department. Many a times, it is required to create only a single page letter. This facility is also available at officer's dashboard. If the officer wants to see the sent file details, it can be seen in the Dealing Person Outbox page. In almost every department, whenever file is created, it is comes under some specific categorizes. For example, 1(12)/2012-eGov, here 1 stands for the file, 12 stands for the subjects of file i.e. project management, and 2012 specifies the year in which file has been created and the last part is the department name where the file belongs to. So, whenever any such system is being implemented the naming convention being used in the organization must be studied earlier. Reception is the most important place or it is better to say the link between the organizations to the outer world. The sending files from organization to the other organization or, receiving the files from other organization is the primary work. The reception also requires the details of the files or letter sent/receive on a specific date or between two dates is another requirement. Have a look on below basic option which may be available to the reception.

REPORTS
  FTS
    PENDING DOCUMENT DETAILS
    DOCUMENT RECEIVING REPORT
    DOCUMENT SENDING REPORT
    ALL DOC RECEIVING BY RNI
    GATE PASS DETAILS REPORT
    GATE PASS DATEWISE REPORT
    DOCUMENT LANGUAGE REPORT

[**Fig 4**: Reception Desk Report]

Important points which can be helpful are: - The number of users who will use the system, this will be useful while testing the system. Require the naming convention details of letters and files used in the organization. The level of hierarchy in the organization is another important fact. Whether the file or letter is being sent outside the organization through reception or not, and if it is then what may be the way to send like speed post, through e-mail, courier etc. In every process of the system, a proper log file should be maintained. Technical assistance may be required while set up the development, testing and production environment. An automated email should be sent to receiver. Simple I text in java technology can be used to generate the report in PDF format or tools can also be used. Jasper report tool can be a good option, it is also open source. To develop such a system, time duration 6-7 months can be considered subject to manpower.

III.   Conclusion

As one can see from reading the information presented, the File Tracking System is very important internal part of almost all the organization, whether it is a small or large. The system importance can be understood from the department's feedback which is very positive. In near future, this system can be implemented as a centralized system for different branches of the organization. Timely reporting and analysis of the documents is in a moment available now. Future enhancements consist of SMS integration, and improvement of system with new technologies. It is no wonder that how this system saves time, cost and other important resources of the organization.

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- It is no wonder that how these system save time,cost and other important resources of the organization.

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