

Automation Tool for Information Services

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Abstract—Information handling is the most important aspect in any organization. Such organizations maintain large bodies of information on application like Microsoft Excel. At present, information stored is updated regularly and when it is to be compared with old records, a manual interpretation is required. This internal process of organization which co-relates various databases in Microsoft Excel is time consuming, monotonous and prone to errors. To eliminate these problems, an automation tool is required. The main purpose of an automation tool is to avoid errors caused by manual interpretation, reduce time consumption, eliminate data redundancy and inconsistency. In this paper, we are introducing Automation Tool for Information Services (A.T.I.S.) which is designed to manage and perform operations on enormous amount of information. A.T.I.S. assures proficiency in information management, it co-relates heterogeneous records, increases efficiency and productivity. In addition, A.T.I.S. also avoids possible anomalous result and thus providing a secured and time efficient solution to information services.

Index Terms— Automation, Microsoft Excel, Organization, Data.

I. INTRODUCTION

Manual processing and working on large amount of data can be time consuming and needs a lot of efforts to acquire the desired results. Having a system that is already automated with required organizational operations speeds up the entire process, increases efficiency and productivity. It also eliminates human errors. Automation Tool for Information Services (A.T.I.S) is built to exact specifications and requirements to serve as a prime component for future information processing scenarios. The Automation tool is easy to use and is designed such that it renders great amount of accuracy, while complying with the latest security and organizational services. This makes A.T.I.S a powerful and resourceful tool to achieve precise results.

Automation Tool for Information Services (A.T.I.S) provides an interface for the authorized users to execute numerous processes like inspection, manipulation, modelling and derivations to a draw required results for internal organizational services.

Authorized users such as Group Head, Project Head and Delivery Manager provides data to the automation tool (A.T.I.S) in the form of excel sheets with CSV (Comma Separated Values) as format. The user can perform various operations using automation tool to get the desired result. The derived result can also be exported in the form of an another excel sheet with CSV extension.

II. BACKGROUND

This section terms the concept behind the development of Automation tool for Information Services. For any organization, big or small, it is not always feasible to keep a manual track of all its employees, projects and other organizational data. This type of data is an integral part of an organization and it is necessary to maintain and study it closely. Multinational corporations treat employee data as an asset. With time the amount of data in an organization increases exponentially.

As this occurs, the management, study and interpretation of data becomes perplexing. These data-rich organizations can no longer use conventional strategies for managing, studying and processing such colossal data and can no longer rely on poorly managed processes. The result derived with use of incongruous technologies with unsystematic practices may or may not be in a proper structure or format.

Making a transition from processing data manually to using a dedicated tool for the same not only makes the entire experience smoother and error free but it also saves extraneous efforts. Automation tool for Information Services (A.T.I.S) is deployed on the organizational server and can be accessed through intranet provided by the organization. A.T.I.S provides coverage across the entire organization and its access is made available to limited number of resources. Higher level management employees above a particular grade are trusted with the data and only these employees are authorized to use the Automation tool for Information Services (A.T.I.S).

III. SOFTWARE DESIGN

The application presented in this paper is developed by using PHP for the frontend and MySQL for storing and processing data in the backend. The presented application that is Automation Tool for Information Services consists of main function like registering a user into the system. Authorization of the registered users on the administrative side, uploading of files into the

database, creating, reading, updating and deleting data (CRUD) from the database and performing various operations which are required by the organization.

Figure 1– Sign up Page of A.T.I.S

Figure 2– Operations Page of A.T.I.S

The user is registered in the system with unique employee ID provided by the organization. This unique employee ID is used a primary key throughout the system for avoiding any duplications and multiple registrations. Automation tool for Information Services (A.T.I.S) checks for the authorization of the user. Authorized users are taken to the homepage of application which the operations Page.

The operation page lists all functions required by the organization to perform various processes on the data. The user can select any one operation as per requirement. The user is then required to upload the data provided by the organization in the form of an excel sheet with Comma Separated Value (CSV) as file format. Automation tool for Information Services (A.T.I.S) validates the format of the selected file and indicates errors if any. After the successful validation, the entire excel sheet is imported and saved as table in MySQL database.

Figure 3 - Upload page of A.T.I.S

Figure 4- Queries of A.T.I.S

The user is then directed to a page which lists all the operation that are to be performed on the data provided. User can select any operation as per requirement and the result is derived and displayed. The result is stored in the form of tables in MySQL Database. The user can further opt to download the derived results in real time from the front-End. The result is then imported

from MySQL tables to excel sheet with Comma Separated Value (CSV) as file format and is downloaded on local systems for user convenience and for further references. A timeout session has been designed for the tool. If the application detects any user inactivity like no touch response, no keypress, no mouse movement then the session will be automatically logged out after a prescribed period of time. The administrative panel has the privileges of authorizing and unauthorizing any user.

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REFERENCES

- [1] Sabah Al-Fedaghi, "Developing Web Applications" International Journal of Software Engineering and Its Applications, Vol. 5 No. 2, April, 2011
- [2] Dhanya Pramod, " A Study of Various Approaches to Assess and Provide Web based Application Security" International Journal of Innovation, Management and Technology, Vol. 2, No. 1, February, 2011 ISSN: 2010-0248.
- [3] Nations, Daniel. "Web Applications". About.com. Retrieved 20 January 2014..
- [4] Ye Wu, Jeff Offutt, "Modeling and Testing Web-based Applications," unpublished.
- [5] Alex Chaffee, "What is a web application (or "webapp")?". Retrieved 2008-07-27.

