An Effective And Robust Computerized Library Management System

Cmak Zeelan Basha, S. Srinivasa Rao, P Lavanya Lahari, B Navya, SVS Divya

Abstract: Earlier Librarian needs to keep the track of books manually which consumes more time. With the advancement of new technology, Library Management System which aims in developing a computerized system that manages and stores the books information electronically. In this paper we provide an efficient access over library system application that was developed through ServiceNow platform. In ServiceNow platform we can easily develop the applications and automate the things in very less time.[1]The main purpose of this paper is to provide an easy access to library. And also to provide the details of library books, issue of books and notify the user about due dates of book being issued. This application helps the user to access the information of the books which saves time and energy. Errors are also avoided by allowing the system to keep the track of information such as issue date, due date to return the book by sending notifications to the user. In this application we have used the concepts like Form Designer,Service portal, Client Scripts, Notifications, Events and Scheduled scripts.[2]Thus, this application reduce manual work to a great extent and allows smooth flow of library activities.

Keywords: Form Designer, Service portal, Client Scripts, Notifications, Events, and Scheduled scripts.

I. INTRODUCTION

Students in most of the universities will take the books from the library manually. It consumes more time so we have developed an application LIBRARY MANAGEMENT SYSTEM using ServiceNow platform.ServiceNow is a product stage which supports IT Service Management (ITSM). It causes you to computerize IT Business Management (ITBM). This cloud-put together stage is planned based with respect to ITIL rules. It uses AI to use information and work processes to help present day endeavor turns out to be quicker and increasingly adaptable.

Most of the students in colleges are facing the problem like forgetting about the due date of the book issued from the library and also it takes more time for the issue of the book. So that, the student can take the book from the library by using this application. For the librarian, it will be little bit difficult to enter the due date from the date of the issue of the book.

II. EXISTING METHOD

To build up a site, we have to finish the agenda that contains Information Gathering,Planning,Design,Content compostion , Coding/Implementation, Testing and Maintenance. All in all strategies,we use HTML, CSS, JAVASCRIPT, SERVLETS, JSP(Java Server Pages) and DATABASE to make a site page. To execute the site page an engineer ought to have information in every one of the dialects.
[3]At the point when we chose to assemble a site page, fundamentally two elements come into picture they are cost and time. Estimation of these depends to a great extent when the size of the venture is excessively high. In every one of the techniques other than coding remaining are same and mandatory. Steps we pursue while making the course enlistment page is gathering the data like reason for the structure for enrollment or for subtleties accumulation and so forth. In this procedure while making the structure we should avoid potential risk that yield of the structure should coordinated with the objective yield. Arranging, at this stage the engineer makes the information that enables a client to pass judgment on how the whole site will resemble. The website guide enables the engineer to understand how the structure of the site ought to be and yet doesn't depict the UI. In this procedure engineer ought to make two distinct sorts of interfaces they are UI and administrator interface. It is a period taking procedure. Structuring the page design, for example, foundation picture, shading, logo of the item. Coming towards the Content composition it is for the most part cover with different phases of the site creation. Coding/Implementation is the last advance of making the site and it is the time taking procedure All the website page components that were structured during the creation ought to be tried. [8]This procedure has assessed time of nine to ten weeks. Testing the site page isn't a basic activity, every single component ought to be approve and confirmed. Testing is presumably the most standard piece of the procedure. Support of the last piece of the site creation ought to be consistent monetarised and standard updation is required and it is a nonstop procedure till the site is being used.

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III. PROPOSED WORK

Library Management System is a project that has been handled basic functions of the library.[7]It's a well organized application for the solution. It stores the details of the books that a student has taken from the library. It keeps the track of the book issued and returned to the library.

1) User Registration:

First they have to go to the Service Portal of the library, if the student have the credentials of the login page they can directly login and can view the books registration form. If the student is first time user they have to click the sign up link and registration form will be opened and they have to registered. That request will go to the admin and then he/she can have a chance of accepting or rejecting the user request. If the admin accepts the request by default the notification will be sent to the user by having the username and 32 bit hexa-decimal password. The user can login with those credentials and after that they can view the books registration form.
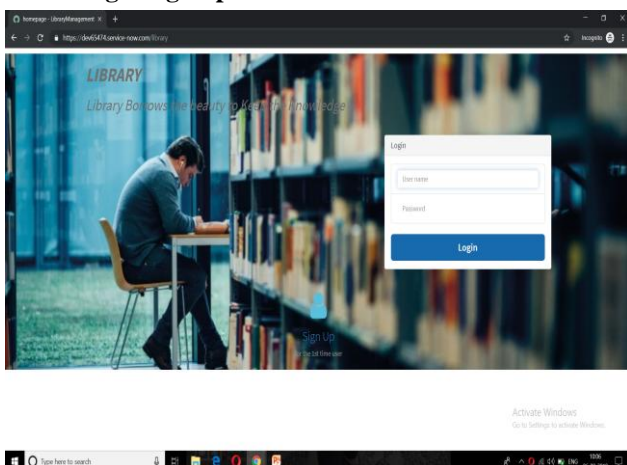
2) Book registration form:

In this form the student have to fill the details like Name of the student, University ID, Email, Year of the student and No.of books(maximum of three books per day). Based on the university id number the branch field will automatically populated. For the automatically populating the branch field we have used the client scripts. Initially no sections will be displayed. After that, based on the number of books they prefer the sections of the book will be opened. For example , if the student chooses only one book then only one section will be displayed. In that each section it contains four fields like Name of the book, Author, Issue date and Due date of the book.[4] After entering the author field the issued and due date will be automatically populated. Issue date will be the day of the date they have taken the book and due date will be populated based on the issued date by adding 10 days to it.

3) Notification:

After filling the form the email will be sent to the students by using notifications. The notification will be sent only when the event is triggered. [6]In the notification we have the field like when to send in that we have set the field when the record is inserted or updated. It also sends another notification before the two days of the due date. Servicenow will retrieve the data form the data base and sends the data in the notification format in with admin had created
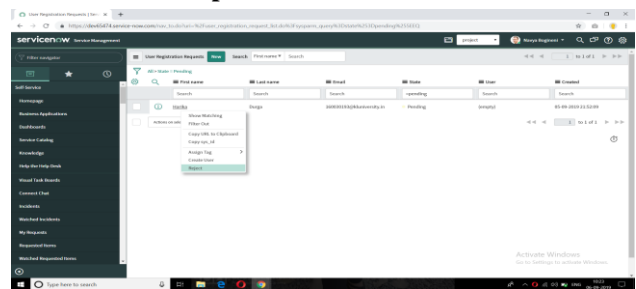
IV. RESULT AND DISCUSSION

A. Login/sign up:
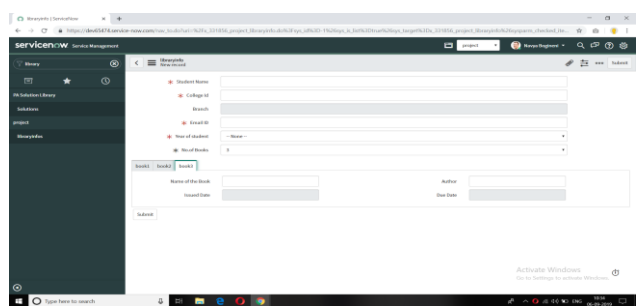

1) The registered user can login directly into website with their credentials.
2) Unregistered users have to sign up with their details to create account.

B. Admin acceptance:

Admin gets the request form user. Here admin should accept and provide the user role so that he can be able to access the form

C. Details of the student:

3) The user should fill the details regarding his name, college ID. The branch of the user gets automatically populated based on college ID given by user.
4) The user gives the number of books ,name and author of the book the system generates issue and due date
5) Based on the number of books it generates sections.
6) By using Client Scripts we can generate branch , no.of sections , issued date and due date automatically.

V. CONCLUSION

This project has been developed by using ServiceNow platform that has been with more efficient and ease to use. This project will solves the problems that has been faced by traditional approach like performance, maintenance and implementation issues in an automated way by using ServiceNow platform.[5] It provides a user friendly environment where the students can be serviced better in the Universities. Improving the operations of issuing and returning the books to the library in terms of having up to date records of customized reports can be generated. Thus this project can be altered in accordance with the future requirements of the organization.

REFERENCES

1. Songsak Channarukul and Nattachai Saejiem "Social-aware automated course planner: An integrated recommender system for university registration system" IEEE [Feb. 1, 2017].

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1648

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Blue Eyes Intelligence Engineering
& Sciences Publication

2. Amer Al-Badarenah, Jamal Alsakran, "An Automated Recommender System for Course Selection", International Journal of Advanced Computer Science and Applications (ijacsa), vol. 7, no. 3, 2016.
3. Calhoun, Vince D., and Tulay Adali. "Feature-based fusion of medical imaging data." IEEE Transactions on Information Technology in Biomedicine 13.5 (2009): 711-720.
4. Petkov N. Biologically motivated computationally intensive approaches to image pattern recognition. Future Generation Computer Systems. 1995 Aug 1;11(4-5):451-65.
5. C M A K. Zeelan Basha, Maruthi Padmaja, and G.N.Balaji,"Computer Aided Fracture Detection System" Journal of Medical Imaging and Health Informatics Vol. 8, 526–531, 2018.
6. Azmira Krishna, CMAK Zeelan Basha, Pradeep Raj Savarapu, Soumya Ranjan Nayak, S. Sivakumar " Multi Target Tracking Access with Data Association in Distributed Camera Networks", International Journal of Recent Technology and Engineering (IJRTE),vol.8,412-417.
7. Cmak Zeelan basha, Azmira Krishna, Pradeep Raj Savarapu "Automatic Detection of Lung Infection", International Journal of Recent Technology and Engineering (IJRTE), Volume-8,200-203.
8. Azmira Krishna, Cmak Zeelan Basha, Syed Karimunnisa " Computerized Face Detection and Tracking" International Journal of Innovative Technology and Exploring Engineering (IJITEE) , Volume-8 Issue-12, October 2019

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