



Computer based Registration for Skill Development

CMAK Zeelan Basha, T V Shanmuka Sharan, M Ravi Kishore Reddy, P S M Venkatesh

Abstract: Student skill development system is a part of university course registration system. In University traditional approach course registration process involves filling registration forms manually and then they have to submit them. In traditional approach students don't have choice to select their courses. Students need to study the courses which are offered by university and are very limited so students cannot improve their skills and the process is very time consuming. With the improvement of information technology from the last decade, the major focus has shifted from manual system to automated system. Various other applications like Railway systems, Hospital management etc., are also getting updated from manual to automated work. Although there are several approaches have been proposed in addressing student registration, this research paper provides a very user friendly and automated way of registration system. An Online Skill Development System has been developed to simplify the current manual procedure. In this project students can register for their courses based on their interest and they can also register for online moocs so that they can improve their skills and knowledge. Students can explore more technologies through the moocs. This system has been developed using ServiceNow Platform and its concepts like Client Script, Script Include, Form designer, Service portal, Workflow and Notifications. This system software is more secured, user-friendly and less time-consuming.

Keywords : Automation, Service portal, ServiceNow, Client Scripts, Workflows, Notifications and Form Designer.

I. INTRODUCTION

Students in most of the universities will register for the courses which are offered by the university and they select their sections based on the respected faculty. But in this approach students are not allowed to register for their interested courses and they were also not allowed to register for the online moocs which are no way related to university but will provide knowledge on various new technologies through internet. According to rules of any universities/ colleges students need to achieve 160 credits to complete their B.Tech degree. As all students irrespective of any

branch need to study some basic subjects during their 1st academic year, no need of choosing subjects on their own. From 2nd year onwards, the university is only providing courses for students and this is the major problem we came across in our university. So students are not able to study in their interested courses. In the skill development system the students can find the courses in which they are interested and they can easily [1] register them self in a particular course through ServiceNow form and its concepts. The current project aims at reducing the workloads that are involved in the registration system for the students. Current manual system faces various different challenges to store and maintain the huge data in the database, so by using servicenow we can easily maintain the large data in the cloud itself so we can save huge time and can make the process easier. The main objectives of this project are :

- To convert manual process to highly automated process.
- To make the process user friendly using servicenow forms.
- To make the approvals accepted/rejected from anywhere.
- To send the notifications automatically.
- Giving accessibility to register from anywhere.

Achievement of the above objectives will lead to use the resources effectively in the institution and also with the help of automated [2] process various errors can be reduced.

II. EXISTING METHOD

To develop a website, we need to complete the checklist that contains Information Gathering, Planning, Design, Content writing, Coding/Implementation, Testing and Maintenance. In general methods, we use HTML, CSS, JAVASCRIPT, SERVLETS, JSP(Java Server Pages) and DATABASE to create a web page. To implement the web page a developer should have knowledge in all the languages.

When we decided to build a web page, mainly two factors come into picture they are price and time. Value of these depends largely when the size of the project is too high. In all the methods other than coding remaining are same and mandatory. Steps we follow while creating the course registration web page is gathering the information like purpose of the form for registration or for details collection etc. In this process while creating the form we should take the precautions that output of the form should definitely matched with the target output. Planning, at this stage the developer creates the data that allows a customer to judge how the entire site will look like.

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The site map allows the developer to understand how the structure of the web site should be and but doesn't describe the user interface.

In this process developer should create two different types of interfaces they are user interface and admin interface. It is a time taking process. Designing the page layout such as background image, color, logo of the product. Coming towards the Content writing it is generally overlap with the other stages of the website creation. Coding/Implementation is the final step of creating the web site and it is the time taking process All the web page elements that were designed during the creation should be tested. This process has estimated time of nine to ten weeks. Testing the webpage is not an simple job, each and every element should be validate and verified. Testing is probably the most routine part of the process. Maintenance of the final part of the web site creation should be continuous monetarized and regular updating is needed and it is a continuous process till the web site is in use.

For this entire process it is estimated that minimum of 5 to 15 weeks of time and large amount of money need to be invested.

III. PROPOSED METHOD

The online course registrations are the most important and major part of the educational system.[1] Designing the course registration form is a crucial part of the process. We did research on registration mechanism before designing the form. By using Service now auto machine software the implementation of online registration course is more efficient and takes less time to complete the total registration process. We had developed an auto machine software for this problem which helps students to register in their interested domains and specialization. Before registering to their courses and section a detailed demo will be given to the students.

This process allows the students to see friends who select the same courses and specialization.[2] With these features, they can arrange their schedule according to their class works. In this process a student can plain their subjects in their way of interest. University provides the courses with respective to the domains. Students need to plan their interested subjects for the entire degree duration.

IV. REGISTRATION MECHANISM

Based on the analysis on some existing registration mechanism this project has three phases they are 1. User registration 2. Online course registration form and 3. Email generation. Each phase represents a module. Each module has different constraints. After collecting the requirements from the university and the students we have decided to use this software.

A. User Registration

Service portal provides the user registration form. User registration is done with the given university identity number and email linked to that number. For student registration he/she should login to the website developed using service portal and request the administrator to grant access to the service portal. There is a plugin called Pending User Registration, this helps the administration department to grant access to the student who was requested (this is one-time registration process so student can't request to access for more than one time). All the students who register are added to the user's table. This can be done using the work

flows for administration approvals.

Service portal is easy to create and connect the course registration form to it(service portal). Four different pages are created by using the service portal one for main page, second for user registration, third for user profile and the last one for course registration. User profile [2] contains the details about user current year, university id number, university email, and current section. Student should have basic knowledge about the service portal before using it.

B. Online course registration form

- This form contains three sections each of them has equal importance. First section contains student details which are reflected from the users table like [4] student name, email and identity number. Student need to enter the current academic year and the choose of interest in which he/she wants to register for. Choice contains courses and mooc's (Massive open online courses). If student selects the courses then a module with three subsections will be appeared which contains area of interest(specialization skilling), domain(like department courses) and core subjects.
- Some of the concepts we used in this are Client side and Server side scripts.[5] Client side scripts are used for the client side representation purpose and server side scripts are used for the maintenance purpose. Some of the examples of service side scripts are used in this was Business rules in general we can used it for database queries, Script Include is used to trigger the flow designs.

C. Email Generation

An email is generated at the end of the registration and send it both the administration department and student university mail id. Flow design is used send the notification to both. [5]Script include will triggered the event after the is form submitted. This email is used in the future while the student is registering for the current semester.

[6]The generated output is more efficient and accurate compare with the general output. Servicenow will retrieve the data form the data base and send the data in the notification format in with administration had created.

By Servicenow we can created this project with less than couple of days comparing with general approach it takes more time to create the form and maintain the web site is costly.

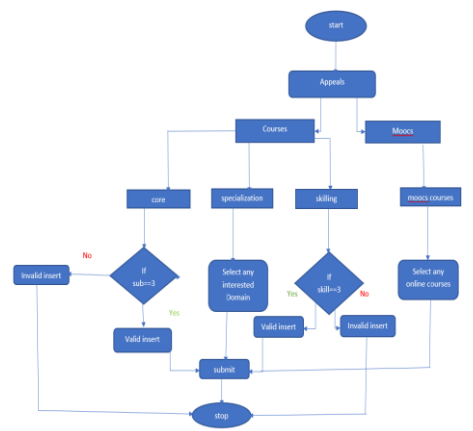
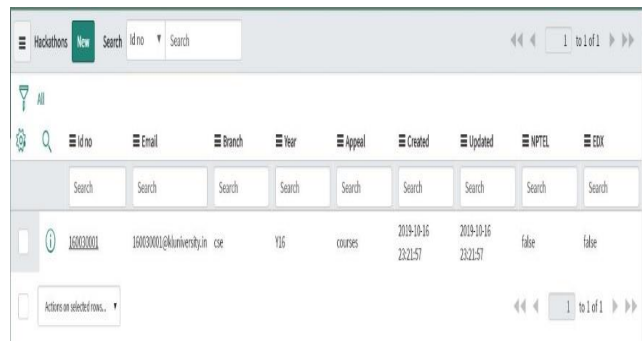
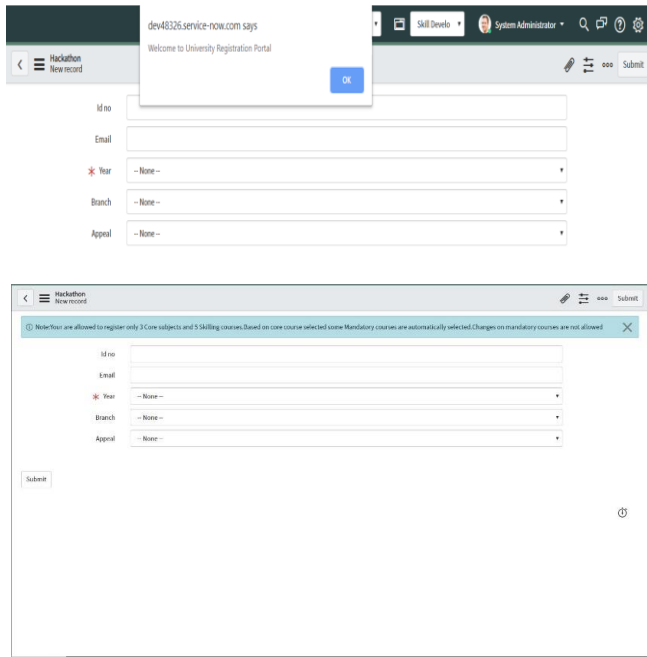


Fig. 1. Proposed Model



V. RESULT AND DISCUSSION

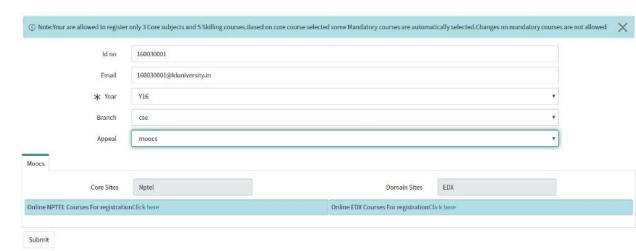


VI. CONCLUSION

Proposed method solves the problems caused by traditional approach like performance issues, maintenance issues and implements the course registration system in a full automated and friendly way through ServiceNow platform. Based on the results collected and the analysis of those results, it can be proved that the online registration system will go a long way in improving efficiency of the university as a whole because a greater number of the respondents supported the idea of having registration being done online. Online registration does not only help in reducing the cost but also helps the university authorities in improving their operations in terms of having up to date records where customized reports can be generated. In as much as this would bring about a positive change to the institution and would save a lot of resources there is also challenges that comes with having registration done online since security issues would become a priority.

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