Assign book Monitoring System

Shreya Samir Labhsetwar[1], Trupti Prakash Patil[2], Shivani Sanjay Tejale[3], Jitendra Mahendra Bagul[4]
[1,2,3,4] *Department of Computer Engineering NDMVP's KBTCOE, Nashik, India*

***Abstract*- There has been increasing interest within the industries for the event of recent technologies wherever real time systems will improve the standard of the merchandise, thus monitoring tool is important for the latest updates between the interdepartments of the private industries. The assign book monitoring system would provide the data of the status of all the interdepartmental activities to the company. The work or the task allotted to the departments will hence be shared on the software and the progress of the software will be updated on a daily basis. Our monitoring system for the tool manufacturing company will be designed and programmed so that it is user friendly and provides an ease to the inter departments activities in the tool manufacturing company. The system will be capable of tracking each and every activity of the departments and the work flow of the company will be tracked. Assignments and to-do tasks can be shared by the various departments to lead the task to completion.**

***Index terms*- Real time system, Assignbook monitoring system, Tool manufacturing company, Tracking**

I.INTRODUCTION

Assignbook monitoring is one of the fundamental activities in industry. In traditional Assignbook monitoring system, assignments were recorded on paper, floppy disks, and emails. They have to delivered or organized manually. This is inconvenient and inefficient, and may cause many problems due to material limits and human errors, such as disordered printouts (without page numbers), damaged floppy disks, etc. Furthermore, instructors and workers usually are unaware of the ongoing work information, which can be used to help them find out problems and improve their learning qualities. Therefore, it becomes important to implement an Assignbook monitoring system method, which can provide both instructors and workers with quality services. Due to the development of web and CGI technologies more such systems are being implemented. Hence it has become very easy for the users to manage and handle the load of the assignments and hence can be accessed from anywhere and anytime simultaneously and get responses immediately; make use of countless online resources and share their own with others. More importantly, they do not need to worry about the operating systems and different application software on either server or client side. All they need to have is a browser and the ability to get online. Assignbook Monitoring System is a distributed application, which will be developed to maintain the details of the status of the work in any company. It maintains the information about the personal details of the employees, also the details about the work given from one department to other. It will also record the performances of Each departments. This application is actually a suite of application which will be developed using asp.Net with C#.Net. It will have a GUI and can be used by anyone who is not even familiar with simple management system. It is will be user friendly and will ask the admin to do all the required setups. There shall be an admin who will look at the reports generated at the end and all the work allotted to each department. We will also be needing a SQL server as back end so that the data of the company is being stored in the database. It will contain various modules in the system. This version of website will be a multi user approach. For further enhancement in the project we will be using colour coding to rate the people on their tasks. The meeting related updates can be sent to all through the software. At the end Admin can have performance evolution of every department and hence find the Performance of the year. The Statistical data of the project can be generated and the company can be evaluated.

Ancient assignment management systems are becoming extinct due to its tedious nature, inefficiency and low accuracy to perform any work.

Currently web based assignbook monitoring system is on a great boom to it finely used newer technologies which help to ease the workload. This introduces a new web-based Assignbook Monitoring System, which combines all useful features in other commercial systems and implements new functions that are practical in assignment management. Its powerful features and friendly user interfaces allow instructors and workers to handle their assignments in a convenient, efficient, and systematically way. In addition, the system has a good expose to newer technologies which will help to reduce tedious work for all the employees in the institute and provide security for the assigned works. The proposed system is a tool for hand tool industry to be used for management of work of employees. This system is a web-based system which will help organizations to improve the process of managing individual as well as department progress. This system will allow the employees to communicate with other departments. Moreover, admins will be able to see the progress of each of the individual as well as departments.

II. PROBLEM STATEMENT

Assignbook Monitoring System is a system comprising summary of assigned work which focuses and compares on individual report and reviews of various departments to provide a clear assessment of the individual or a department as whole.

Fig. 1 Traditional Method of Assignment /work Submission

III.LITERATURE SURVEY

In [1], Xiaoyu Sun combines all useful features in other commercial systems and implements new functions that are practical in assignment management. Its powerful features and friendly user interfaces allow instructors and students to handle their assignments in a convenient, efficient, and systematical way. In addition, this system also has very good portability and extensibility, and the system security has been strongly enhanced by multiple security strategies.

In [2], Bixler et al. has shown the study of Assignment system by utilizing time-based elimination criteria, monitoring equipment that is coupled to generic port can be automatically processed for port priori ties, and equipment assignment changes. An event Subscription manager with location bridges and nurse call bridges facilitate the automatic association of the patient monitoring equipment to the respective nurse call system and intended information therein. By use of the automatic association paradigms, manual alarm and assignment tasks can be minimized.

In [3], Nor Azlina Abd Rahman and Khalida Shajaratuddur has composed system that shows the impact of the system to students, lecturers and university are discussed. The proposed system helps reducing and minimizing human error, capable to assist supervisors in process controlling and managing students. Supervisors can check the student projects statuses, the uploaded files online and assist them while they are working in the project if necessary. The proposed system decreases the complexity of managing projects for student by providing them with the current status of their projects and the progresses with their supervisors. Moreover, the proposed system allows supervisors to share documents and files with their students and communicate with them through video call and text chat.

In [4], Senate Bill has used HTML,CSS for assignments given to school students and takes an active survey of students involved in solving those assignments. It makes the teachers easy to share the assignments to the group of students studying in a class; hence they came up with the idea of State Assignment Accountability System.

TABLE 1SUMMARY OF LITERATURE SURVEY

Ref. NO.	Author	Year	Title	Technology
[1]	Xiaoyu Sun	2002	An Assignment Management System	ASP.Net, JavaScript
[2]	Craig Bixler	2006	Automatically Tracking Mobilized Equipment and Nurse Call Priority Assignment System And method	Python, IoT
[3]	Nor Azlina Abd Rahman	2014	Online Project and Assignment Submission Management and Progress Monitoring System	Asynchronous JavaScript and XML
[4]	Senate Bill	2018	State Assignment Accountability System	HTML, CSS

IV.OBJECTIVE AND SCOPE

Traditional assignment management is becoming obsolete due to its inconvenience, inefficiency, and low accuracy. Currently, web-based management systems have been widely implemented due to the development of Web and CGI technologies. This introduces a new web-based Assignbook Monitoring System, which combines all useful features in other commercial systems and implements new functions that are practical in assignment management. Its powerful features and friendly user interfaces allow instructors and workers to handle their assignments in a convenient, efficient, and systematical way. In addition, this system also has very good portability and extensibility, and the system security has been strongly enhanced by multiple security strategies. The proposed system is a tool for tool manufacturing company to be used for management of work of employees. This system is a web-based system which will help organizations to improve the process of managing individual as well as department progress. This system will allow the employees to communicate with other departments. Moreover, admins will be able to see the progress of each of the individual as well as departments.

This assignbook monitoring system is so designed that the customers (e.g. The tool manufacturing company) will be capable of generating feedbacks to the assigned assignments. The tedious work of a traditional management will be hence stopped. The system will have colour coding based on the performance of each department. Hence the performance of each department will be analysed by the head. Admins would be able to view the interpersonal activities of the departments. Further there shall be report generation of every department's performance and will give the results to the admins of the system. Analysis and evaluation of each colour code can be performed by the Admin. The system is able to view the send alerts to each department before the deadline of particular task or assignments. Hence by these things we easily achieve all the objectives required to meet the customer's expectations.

V. SYSTEM ARCHITECTURE

In this paper, the AMS (Assignbook Monitoring System) is hypothesized and visualized in depth. The operation flow, business model, operational requirements and installation requirements are stated in detail in this paper. The entire system architecture consisting of all the components and functional endpoints of the system are listed and explained exhaustively.

The system is designed based on request and response experience of the company. It can perfectly meet the needs of most instructors and workers. The system applications are installed on a web server with windows operating system. All

CGI scripts are written in C# and generate a set of friendly dynamic HTML pages according to user requests. This system also implements a Database system, which uses SQL DBMS (Database Management System). Because of the cross-platform attributes of Perl and SQL, this system can easily migrate to other operating systems or employ to other DBMSs with slight modifications. The main features of the system and its implementation will be discussed in detail in the following sections.

A. Admin:

In the proposed system admin can add the users to the system view the activities of the departments and generate reports for the performance of the departments.

B. Users:

In the proposed system users will be able to view or send tasks/requests to other departments for work.

C. System Manager:
The system manager will look at the maintenance of the system. All the database related activities can be looked after by the system manager.

System Features/Operations:
The Assign book system works with the following operations where in the Employee has to get started with the registrations.

- Employee Registration
- Employee Login
- Admin Login
- System Manager Login
- Database Manager (System Manager)

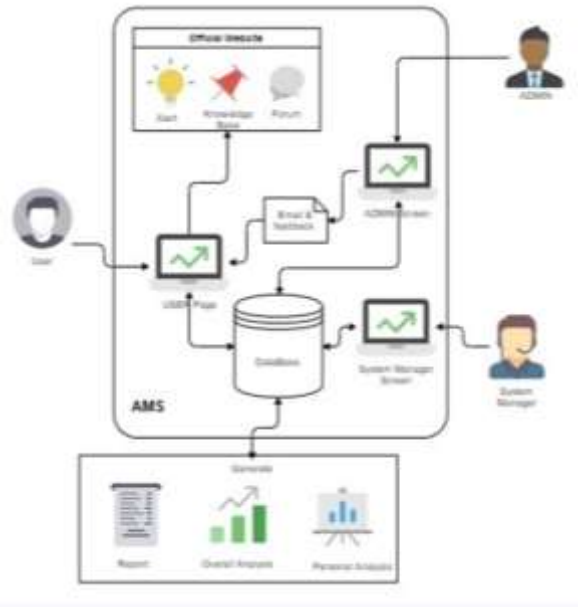

Fig. 2 System Architecture

VI. SOFTWARE TO BE USED

Backend for AMS
A. SQL Server Management Studio
SQL Server Management Studio also known as (SSMS) is a software launched by Microsoft SQL Server 2005 which is being used for managing the configurations and huge data that is going to be used by other software's.[5] The tool includes both script editors and graphical tools which work with objects and features of the server. The tool is designed for the easy retrieval of data.

Fig. 3 SQL Server Management studio icon

Frontend for AMS
A. Visual Studio
Visual Studio is an integrated development environment (IDE) launched by Microsoft. Visual Studio is basically used to develop various computer programs, various web applications and websites, services and mobile applications.[6] Visual Studio uses Microsoft software development platforms such as Windows API, Windows Forms, Windows Presentation Foundation, Windows Store and Microsoft Silverlight. It can produce both native code and managed code.

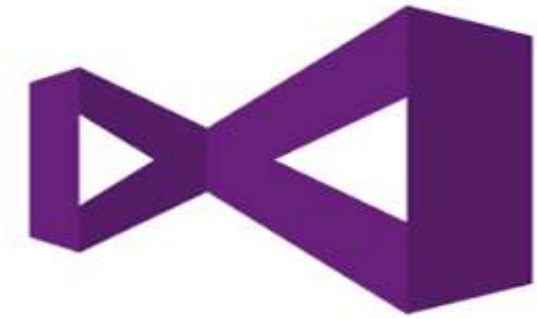

Fig. 4 Visual Studio icon

ASP.NET
.NET is a developer platform which uses ample number of tools and various libraries which are specifically meant for building various web applications.[7] ASP.NET extends the .NET developer platform with various tools for developing a web application.

Programming Languages used

C#:
C# (C-Sharp) is a programming language developed by Microsoft that runs on the. NET Framework.[8]

HTML
Hypertext Markup Language also known as (HTML) is the standard language used for documentation which is being designed to be displayed on the front end of the developer's screen.[9] It can be assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript.

CSS
Cascading Style Sheets also known as (CSS) is a language which best describes the style of an HTML document. CSS describes how HTML elements should be displayed and what different styles are to use to make the front-end user friendly.[9]

JavaScript
JavaScript is a computer programming language. It is lightweight and most commonly used as a part of web pages, whose implementations allow client-side script to interact with the user and make dynamic pages. It is an interpreted programming language with object-oriented capabilities.[10]

VII. IMPLEMENTATION

The implementation of assignbook monitoring system goes hereby. Three types of users typically handle different tasks in assignment monitoring system: Administrators, Head of departments, and Staff. For an administrator, the main task is database initialization and assigning tasks. Assigning tasks include initializing departments, head of departments, staffs and monitoring the whole system. For a Head of department, the main tasks are: assigning tasks to the staffs which is assigned by admin and get it done within allotted time. Followed by reverting back the assigned task to admin, it also includes all the information related to color coding based on the user performance, assignment submission status; checking timely status; and view work status of individual information. For an employee, tasks include checking posted assignments, completing the assigned task within allotted time, updating the status of the tasks daily and checking both personal and department status. All users access the system via a login page, which is shown in Figures below. Upon logging in, the system automatically executes user identification validating process. If both the email id and password are considered valid, the user enters the system. Otherwise, an error message will prompt the user to attempt the login process again.
Implementation shows the working snapshots of the entire assignbook monitoring system which goes as follows:

1. Database

Database plays a very important role in storing of the data. The AMS uses Microsoft SQL Server. All the data is stored and retrieved in SQL server studio. Microsoft SQL server is being developed by Microsoft and work as a relational database which is used for storing and retrieval of data.

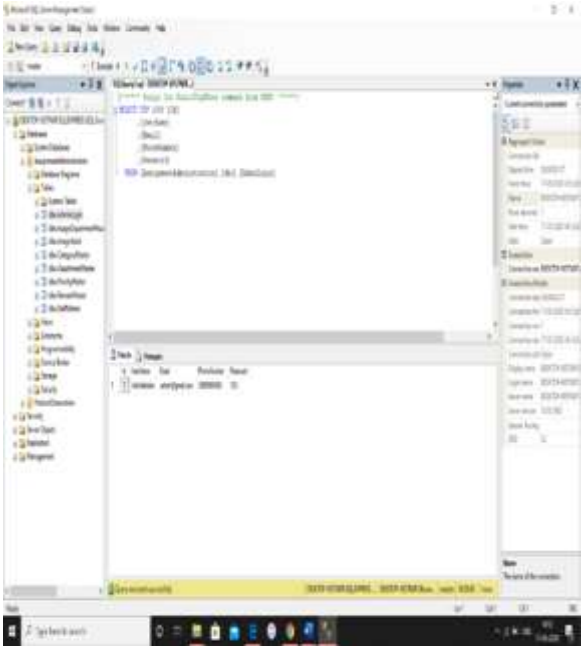

Fig.5 Microsoft SQL Server

2. Login Page

The login page is been developed for the Admins, HOD's and the staffs of the company. By login with their Email id and Password they are directed to the assignment page.

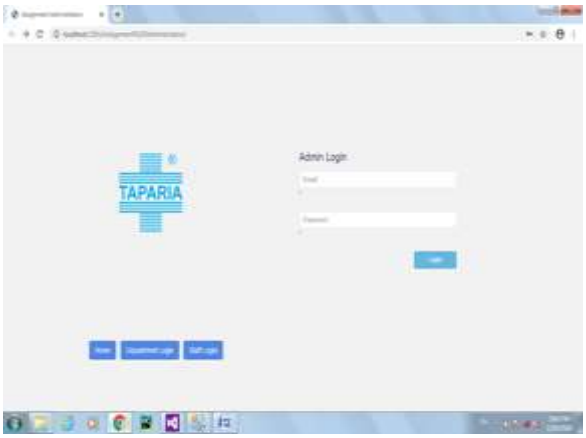

Fig.6 Admin Login

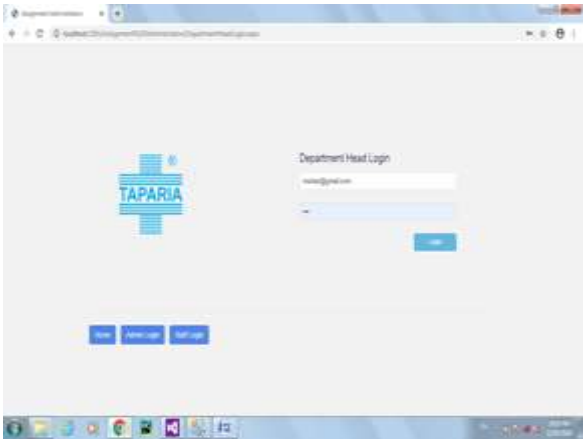

Fig.7. Department head Login

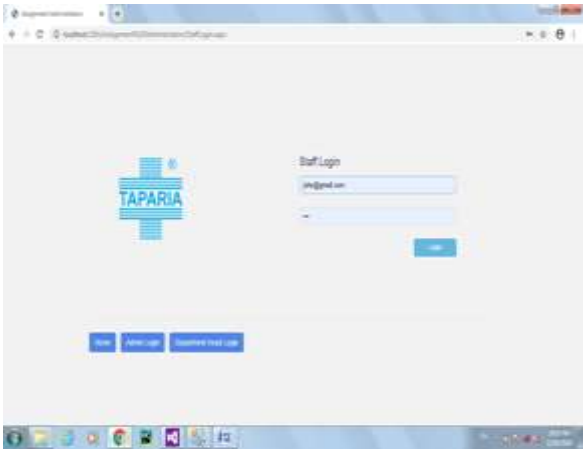

Fig.8. Staff Login

3. Dashboard

The dashboard shows the number of assigned tasks, pending and InProgress assignments. Dashboard is so designed that it will show the tasks/assignments for Admin, Head of Department and Staff member

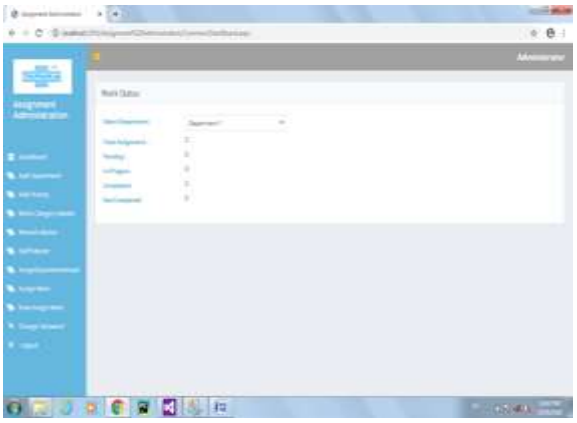

Fig.9. Admin Dashboard

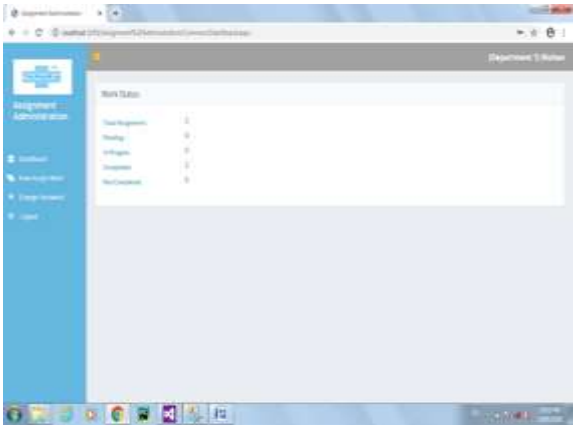

Fig.10. Department Head Dashboard

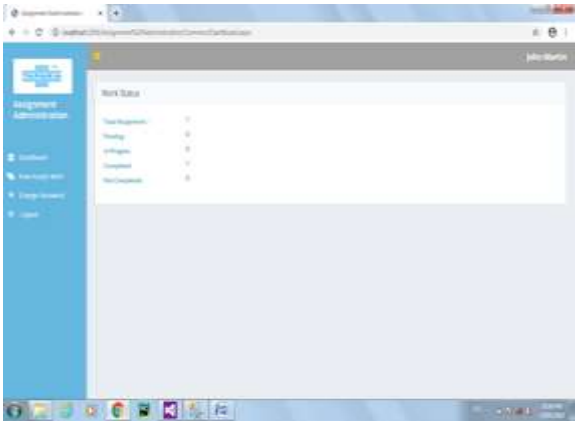

Fig.11 Staff dashboard

4. Other Pages

The main function bar is composed of ten pages: Dashboard, add department, Priority, Staff master, Assign Department head, assign work, view Assign work, change password and Log out. Information (see Figure7). They are used to perform different management tasks and are explained following.

Priority Master

In priority master admin can prioritize the assigned task as in what could be the frequency of the task i.e. low ,medium , high .If the tasks is to finished urgently then the priority is set as high , if the task is to completed within stimulated time then it is set as low likewise for medium as per the requirement

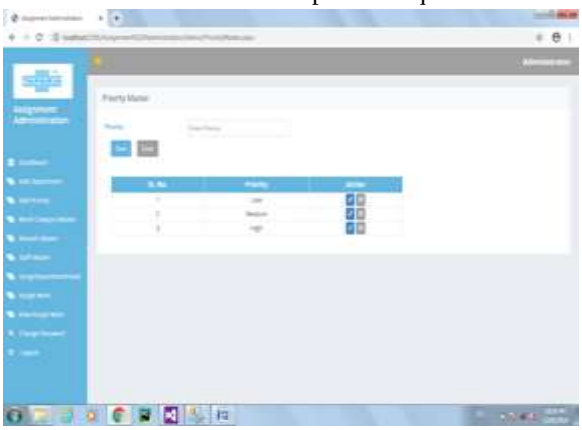

Fig.12. Priority Master

Remark Master

Remark master enables the user to update the current status of their assigned task as and when required so that the admin panel and HOD's can monitor their status respectively .when the user accepts the task the status is set as "Open" and when the task is submitted to the respective department is set as "Close" .In the same way "In Progress" is used when user's task is ongoing process , and if the user is unable to do the assigned task due to some reason then he/she can select the "Not possible" option so that the task is assigned to another person.

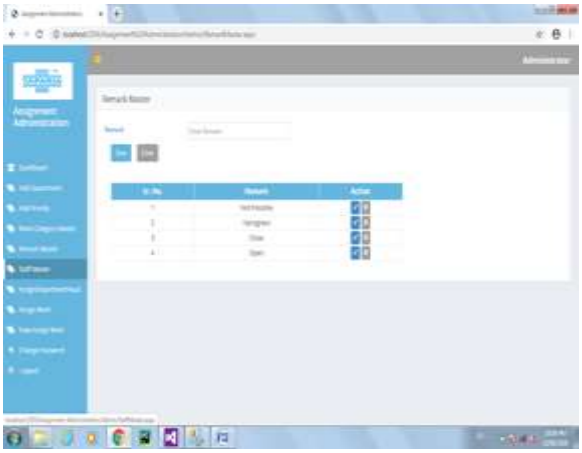

Fig.13 Remark Master

Staff Master

In this section the information of the staff is filled and stored in the database, it includes the Name of the respective person, department of the respective person, personal information of the user such as mobile number, emailed and password .Email id and password are the two important key to login the system.

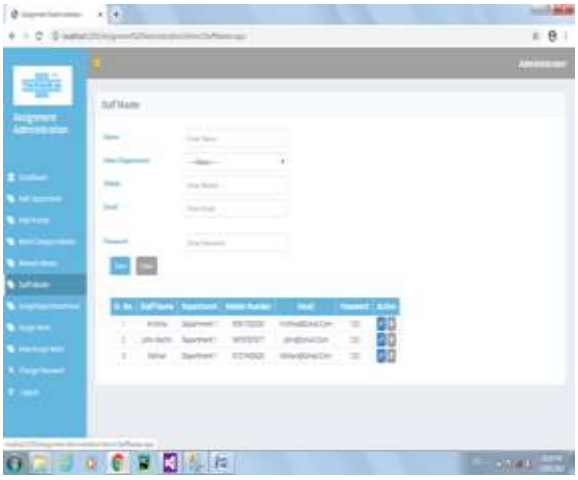

Fig.14. Staff Master

Assign Department Head

Assign department head enables the user to assign head of department from the database system. User can select on person from respective department list. For example, if user selects the department as production department then user can only select head of department from the production department list.

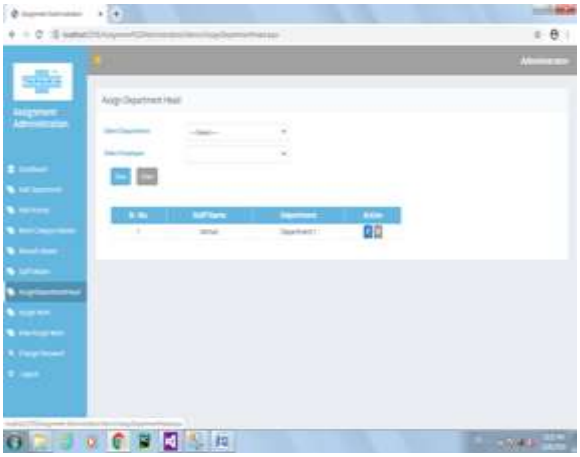

Fig.15. Assign Department Head

Assign Work

In assign work section there are number of fields such as assign work id which is automatically generated when assigned , select the department which is to be assigned the work , assignment name is the name of the assignment , description is the detailed description of the assigned task , Imp remark is any important note to be given to the user ,the important fields that is the allocation date of the task is date when the user is assigned task and the target date is when the task is to submitted .User can select the priority of the task as low, medium, high.

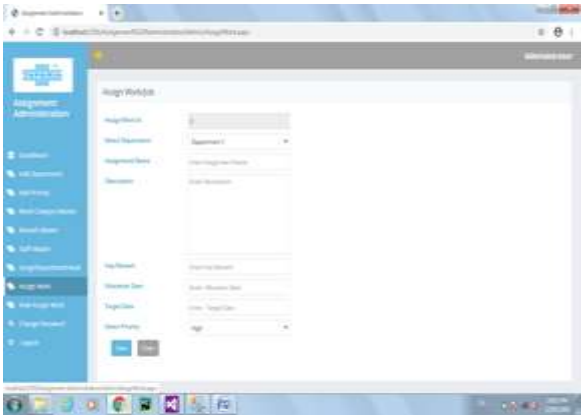

Fig.16 Assign Work

View Assign work

View assign work is used to monitor the status of the individual status. The status can be seen by selecting the respective department, allocation date when the task was assigned and the target date when the task is to be completed. By filling these fields, the user is able to see the status of the task of the respective department.

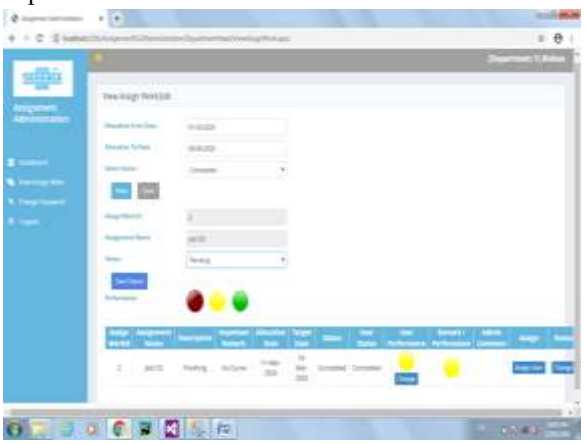

Fig.17. View Assigned work

Password

In order to change his/her password, an admin needs to input both the old and the new passwords. First, the AMS system checks if the old password is the correct one for the current user. Then it checks the new password, which needs to be typed twice. For valid inputs, the system automatically updates the admin's password and returns a success notice to the user. For invalid inputs, an error message will be displayed to prompt the user re-execute the process. Figure 10 shows such an example.

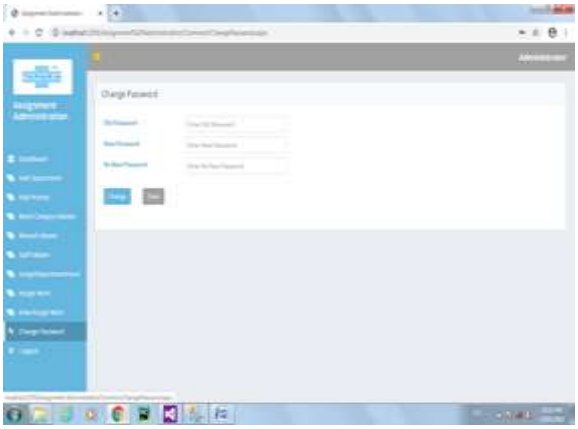

Fig.18. Change Password

VIII. ADVANTAGES

Assignbook Monitoring system has a huge impact on the industrial sector as it is feasible for the use of various assignment submissions leaving behind the tedious ways, following are some of the advantages the system provides:

- Cost saving, eliminates the unnecessary meeting
- Timeline of the task is visible thus deadlines can be achieved on time.
- Convenient for the employees and Head of Department using the online assignbook monitoring system is a lot easier since they can simply go online.
- Higher performance, employees can manage their task a lot easier with a decent assignbook monitoring system within stimulated timeline and deadline.
- Higher security and privacy.
- Higher visibility of task progress of the respective departments and easier management of the tasks.

- Convenient for the head of departments using assignment monitoring system the head can simply monitor the progress of each employee as well as departments

IX.CONCLUSION

Thus, Assignbook Monitoring System provides instructors and workers powerful features to handle assignments. The friendly HTML pages allow users to work easily and conveniently. The utilization of DBMS produces high system efficiency in data manipulation. Cross platform attributes of C# and SQL make it a portable system on most operating systems with slight modifications. The database design is very important during implementation because the database structure can significantly affect system efficiency and flexibility.

X. ACKNOWLEDGEMENTS

With all respect and gratitude, we would like to thank all the people who have helped us directly or indirectly for the completion of the project Assignbook Monitoring system. We express our heartily gratitude towards Ms.V.S. Tidake for guiding us to understand the work conceptually and also for her constant encouragement to complete the project. Our association with her as a student has been extremely inspiring. We would like to give our sincere thanks to Dr. V. S. Pawar, Head of the Department of Computer Engineering for her technical support and constant encouragement. We would also like to extend our sincere thanks to our Principal Dr. N. S. Patil for his help and support in all respects. We would also like to thank all our staff members and colleagues who helped us directly or indirectly throughout our dissertation work, and finally we would like to thanks TAPARIA TOOLS PVT. Ltd a well-known tool manufacturing company for sponsoring our project and giving us constant guidance throughout the project.

REFERENCES

[1] Xiaoyu Sun, "An Assignment Management System", A Master's Paper in Computer Science.

[2] Craig Bixler, Saint Charles, IL (US); Scott Hutchinson, South Elgin, IL (US); Brent Bergwall, Carpentersville, IL (US), "Automatically Tracking Mobilized Equipment and Nurse Call Priority Assignment System And method"

[3] Nor Azlina Abd Rahman, Khalida Shajaratuddur Harun, "Online Project and Assignment Submission, Management and Progress Monitoring System (OPAS)"

[4] Senate Bill, "State Assignment Accountability System."

[5] https://en.wikipedia.org/wiki/SQL_Server_Management_Studio

[6] https://en.wikipedia.org/wiki/Microsoft_Visual_Studio

[7] learning-aspnet-core-20-build-modern-web-apps-with-aspnet-core-20-mvc-and-ef-core-2-e158436272.html

[8] https://www.computer-pdf.com/programming/csharp/879-tutorial-learning-c-language.html

[9] https://wtf.tw/ref/duckett.pdf

[10] http://bedford-computing.co.uk/learning/wp-content/uploads/2015/10/JavaScript-and-JQuery-Interactive-Front-End-Web-Development-Introduction.pdf