

Assessing the Effects and Obstacles of Adopting Management Information Systems

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Abstract

The use of computer software technology has increased significantly with recent advancements in technology. The fast improvement of all spheres of life has also been facilitated by software systems. The management of schools and pupils has been substantially improved by the introduction of software solutions. This essay primarily examines and condenses the importance, the primary layout, and the drawbacks of the student information management system.

Keywords: *Personal Computer (PC), Visual Studio, Management Information System (MIS), Students Records, Easy Accessible.*

INTRODUCTION

A researcher called Raymond Billy created the first management information system (MIS) for businesses, industries, institutions, and schools in 1978 when he was still a high school student at Asheville High School. Then, it was initially founded by Philip Neal, a researcher who taught at Lea Manor High School from 1982 to 1983. Later, this programme was improved by Bedfordshire County Council

(the local education body for Lea Manor), and additional schools started using it in 1984. Sims Ltd., an advertising firm, received funding in 1988 to further develop SIMS. By the Capita cluster, SIMS Ltd. was not inheritable in 1994. To alleviate debt, Capita chose to sell its Education Software Solutions division to private equity firm Montagu in December 2020. SIMS is the division's main product. After the acquisition process is complete,

Montagu intends to distribute SIMS 8, the most recent version, according to their statement [1]. The enrollment levels of major universities and colleges continue to rise as a result of the higher education system's quick development. The number of students attending school has sharply increased, and many new majors and specialties have been added to the schools or institutions. The college's students come in a variety of shapes, sizes, and majors. These complicate student data handling at the individual level. In regular classroom activity, counting the student data takes a lot of time and effort. We must develop a student personal information management system to manage this massive amount of data if we are to operate effectively. The main purpose of the information management system is to handle the vital information on students who are enrolled in institutions like schools and colleges. Student data is a crucial component in the growth of students. The administration and use of student data are quite important since it is a substantial folder of student data.

To physically preserve and input the student data, the academic management departments of the various majors of the institutions, schools, or colleges mostly use the old-fashioned management

method. The speed of data collation is slow, information loss is likely to happen, statistical errors, query work is inopportune, and management personnel spends a lot of money as a result of the lack of a fused data broad management podium, combined with high-intensity information processing workload and regionalized management of data. Time and effort have had some impact on other data management-related projects. The administration of college and university information thus requires an integrated management system for the individual data of the full institutions, colleges, and schools. The system's implementation goes beyond simply realising data sharing, facilitating management and inquiry, speeding up the import of relevant data, streamlining labor, relieving management staff of tedious information processing tasks, and fortifying ties between various professions and departments. Students' data is analyzed, the college and students share information, and parents are aware of how their children are doing at school. The student's information management system is displayed in Figure 1 below.



Fig_1: Student information management system

RELATED WORKS

A ChatBot is software that simulates human communication via speech or text. One of the initial Chatbot was developed and established for discussion among the machine and the user. This Chatbot is fabricated based on the user interface, permitting this user to type the probe and assent the response in the text as well as speech.

The college inquest Chatbot is installed on artificial intelligence algorithms that study the user interrogations and sense the user's message. With the assistance of the artificial algorithms, the Chatbot answers the interrogation asked by the students without physically being available in the college. It uses artificial intelligence methods such as Natural Language

Processing, image and video processing, and audio analysis. Porter Stemmer formula and order Similarity between Sentences is employed for removing the suffixes from the word in English. The system assisted many organizations to ensure good services and customer satisfaction with the less human intervention [3].

Additional seminal Chatbot, known as UniBOT was established for University Data System. The Chatbot provides information associated with university OR college and likewise about student happenings. As the student has to visit the college or institute to collect different information or notices like Tuition Fees,

Defaulter List, Academic schedule. This practice can be time-consuming and tedious and to overcome this Chatbot is introduced. Besides the academic information, this Chatbot can likewise be used to provide extra data using Natural Language Processing [4].

Applying the Robotic Process Automation (RPA) in administrative processes of public administration provides the benefits of RPA and applications of RPA in diverse areas. This automates the functions and processes by decreasing the cost through the introduction of the robotization process. Modern technologies are carried out in all the areas of activity speedily.

Technologies are meant to improve or optimize the process of management and development of organizations, by bringing the new level of proficiency of quality of services. Smart devices and intelligent machines perform many jobs and operations in manufacturing. The RPA is used as specialized software that simulates human interaction with the data system to carry out a business process. [5].

In Explained Analysis of Robotic method Automation Tools, an in depth study of the leading RPA platforms specifically, UiPath Studio, Automation anyplace

(AA), and Blue Prism (BP) is shown. When swiftness is expected in all the sectors, the speed of execution of different processes becomes an essential factor. They compared these tools considering different factors such as Front office automation, back-office automation, security, its code- free and user-friendly nature [6].

RPA has likewise been found to be critical in automating processes within an ERP system. ERP-based processes are structured by first identifying significant business processes, aligning different activities in an order of events, and aligning all processes based on definite business logic. Research showed that using RPA technology, information mining processes using BOTs can replace human processes and thereby enhance ERP processing [7].

Mistreatment RPA and ChatBot, it will be incontestable that the coed data Management at intervals Associate in Nursing ERP system will be expeditiously managed with no errors. It will not only automate repeatable tasks but will allow efficient management of numerous functions based on set business rules [8].

Management Information Systems provides the following advantages

1. **It simplifies scheduling:** The MIS improves the eminence of plants by providing significant data for sound pronouncement making. Due to an upsurge in the size and complexity of organizations, managers have lost personal contact with the scene of operations.
2. **In minimizing information overload:** Management information systems (MIS) change the larger amount of information into a summarized form and thereby avoid the confusion which may arise when managers are flooded with detailed facts.
3. **Management information system (MIS) Inspires Decentralization:** Decentralization of authority is possible when there is a system for monitoring operations at lower levels. MIS is with success used for measure performance and creating necessary changes within the structure plans and procedures.
4. **It brings Co-ordination:** Management information system (MIS) facilities integration of specialized activities by keeping each

department aware of the problem and requirements of other departments. It connects all call centers within the organization.

5. **It makes control easier:** Management information system serves as a connection between managerial planning and control. It increases the ability of management to improve and evaluate performance. The used computers have increased the information processing and storage capabilities and reduced the cost.
6. Management information system assembles, processes, Retrieves, stores, evaluates and disseminates the information [9].

MANAGEMENT INFORMATION SYSTEMS PROVIDES THE FOLLOWING DISADVANTAGES

1. It is highly sensitive and needs constant monitoring.
2. The Budgeting of management information systems is enormously challenging.
3. Quality of outputs is ruled by the standard of inputs
4. Lack of tractability to update itself.
5. Helpfulness decreases due to frequent changes in top management [9].

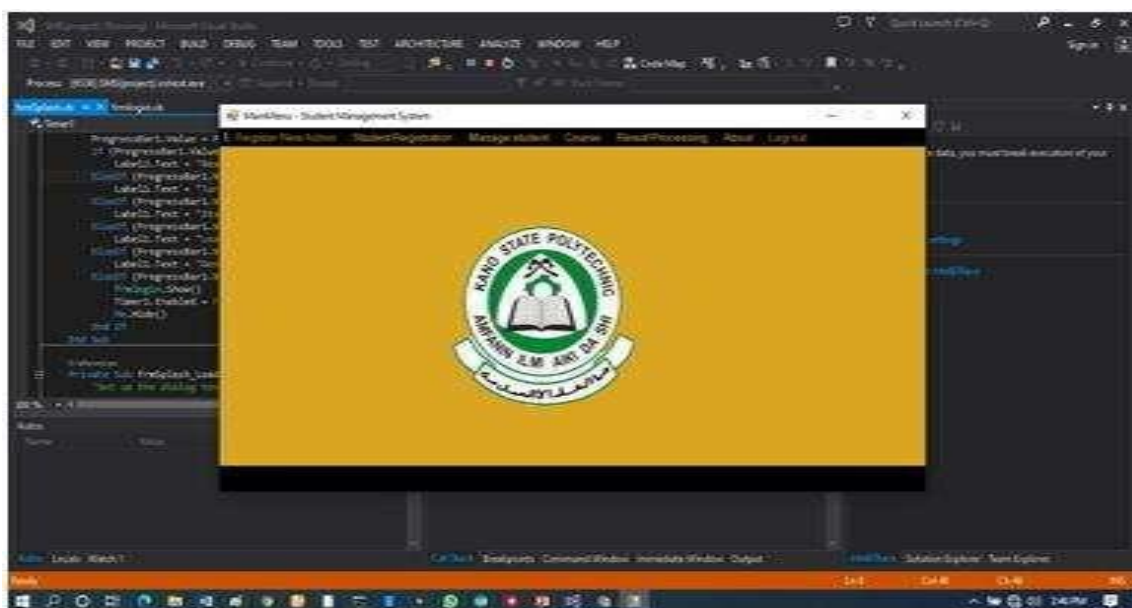
RESULT AND DISCUSSION

The computer software application was designed to have three main sections, namely; the login window, the main menu, and the sub-menu. The login window requests a valid username and password from the administrator to be able to gain access to the software. The administrator is any staff that is authorized by the management of the institution to be in charge of the exams and records unit; hence he should have a valid username and password created by him to be able to login to the software. Main Graphical User Interface (GUI).

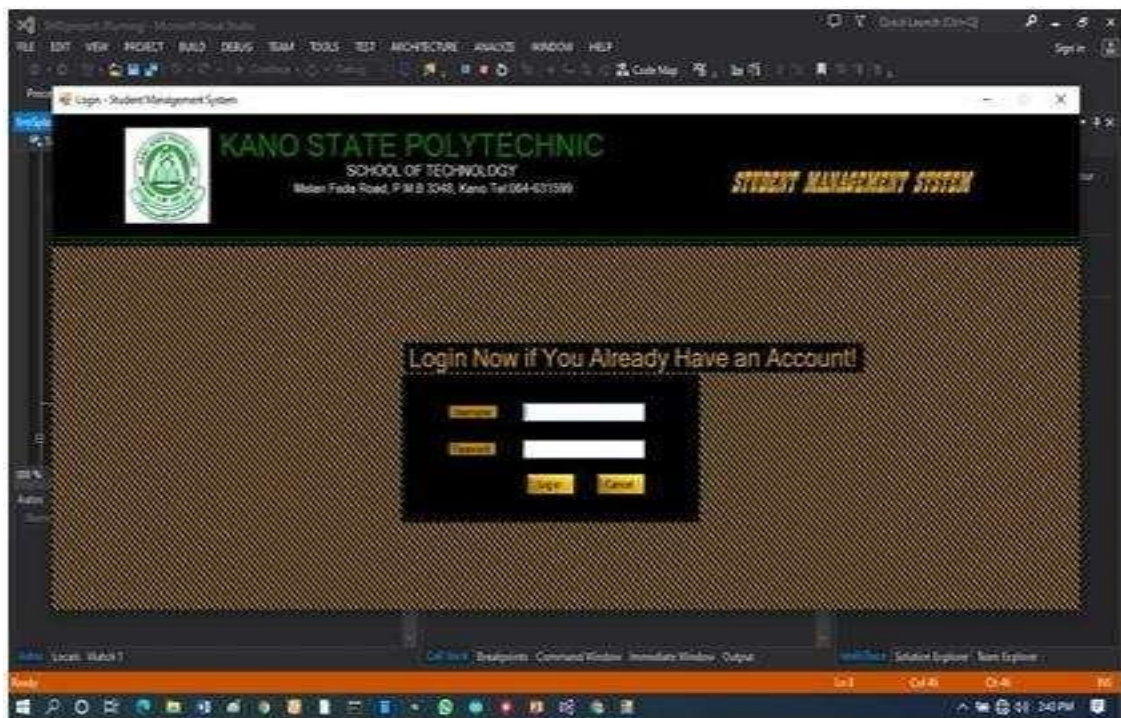
The GUI is a way to interact with a computer using pictures and other visual

elements displayed on the computer. The graphical user interface is important to make the user an easy to understand what he needs to do to use the program to make the GUI functions work properly, must insert Microsoft visual studio coding of its elements.

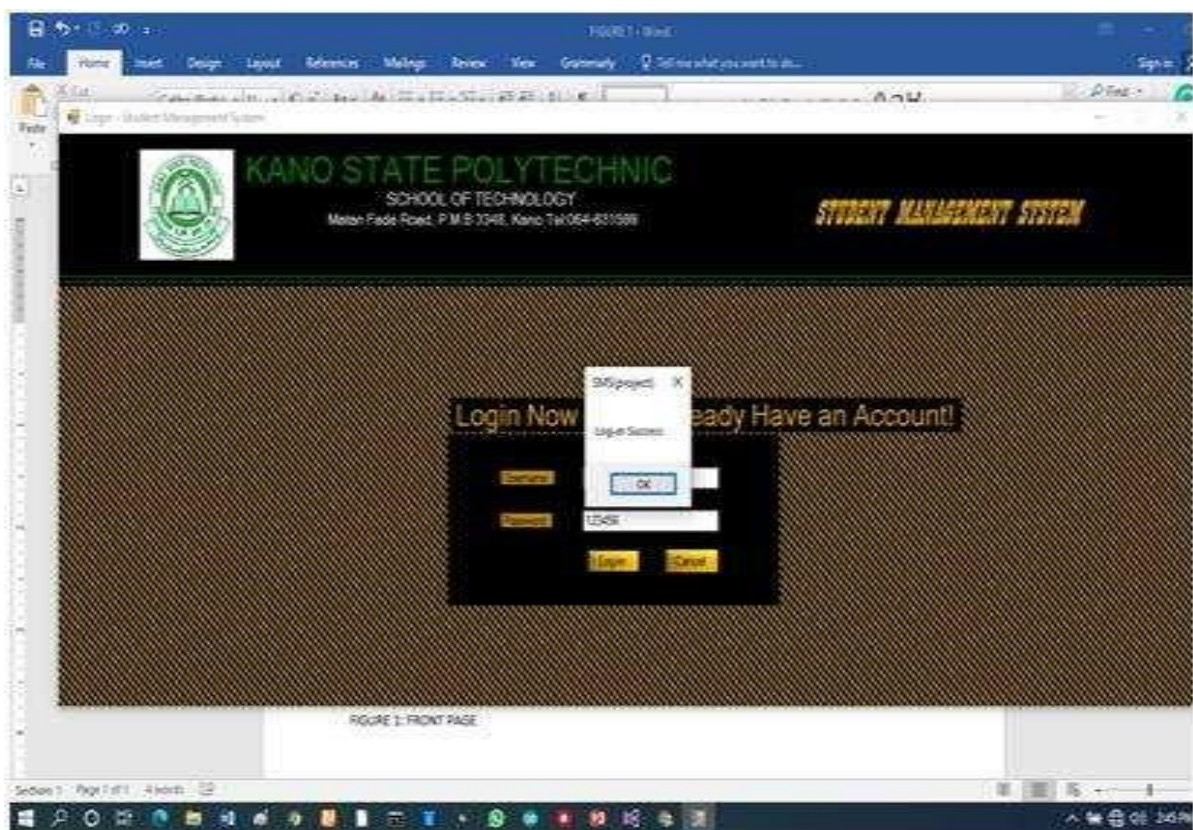
The main interface of the system contains all the sub interfaces, the sub-interfaces are the admin form, register new students, and display student information. The login window enables the user to enter his/her password. If the password entered is valid, the package can then show the most menu. Nevertheless, if the password is not valid the user will be denied access to the program.



Fig_2: Student management information system (Main Interface)



Fig_3: Login interface



Fig_4: Login successful

Fig_5: How record is uploaded in the system

S/N	First Name	Middle Name	Last Name	Registration Number	Gender	Address	Email Address	Phone Number	Date of Birth	Picture	Date of Origin	ID#
1	YUSUF	ABDULLAH	ABDULLAH	NO/105/15/021	MALE	Network and Security Department, (S) M/48/15/021	yusuf.abdullah@gmail.com	08123456789	10/10/2015		Kano	Kano
2	YUSUF	ABDULLAH	ABDULLAH	NO/105/15/021	MALE	Network and Security Department, (S) M/48/15/021	yusuf.abdullah@gmail.com	08123456789	10/10/2015		Kano	Kano
3	YUSUF	ABDULLAH	ABDULLAH	NO/105/15/021	MALE	Network and Security Department, (S) M/48/15/021	yusuf.abdullah@gmail.com	08123456789	10/10/2015		Kano	Kano

Fig_6: The saved records uploaded

CONCLUSIONS

With the development of society and technology, it is an expected development to apply computer management systems to school student management. This cannot merely manage student data better, but likewise, advance the reasonable management of student information. This can also promote the effective development of school education.

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