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## **Design and Implementation of Online Clearance System**

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### **Abstract**

*An online clearance system is a web-based platform designed to streamline the clearance process by allowing users to submit necessary documents, track their status, and receive clearance approvals electronically, significantly reducing administrative burdens and providing a convenient, time-saving alternative to traditional manual clearance procedures, particularly beneficial for institutions managing large volumes of applications or requiring multi-departmental approvals. The proposed system was implemented via Windows 8 platform using the following technologies HTML, CSS, JavaScript, MySQL and PHP programming language.*

**Keywords:** *clearance system, design, language, javascript*

### **1. Introduction**

Clearance can refer to authorization or permission from an authority (Anigbogu, 2000; Chimezie, 2000). The act of clearing an individual involves granting individual a permission to have access to sensitive or secret documents or other information. The Oxford dictionary defines “online” as controlled by or connected to a computer and as an activity or service which is available or performed using the Internet or other computer network (Dictionary of British and World English, 2015). As people of this generation become more dependent on the Internet for information, the need for automated clearance becomes more apparent.

Online clearance system is now used in various academic institutions both locally and internationally for various clearance purposes, for instance, online hostel accommodation, UTME online clearance exercise, online admission exercise, online graduating clearance exercise, and National Youth Service Corp online mobilization registration exercise to mention but a few.

In institution of higher learning like Federal School of Statistics, Enugu, there is need for automated method of data keeping, so a greater need for an automated online clearance system. This will go a long way in alleviating the various problems and stress involved in the manual method of clearance. The focus of this research therefore is to provide a reliable and transparent system devoid of personal inclinations and interest, to eliminate travelling and queuing of students during clearance in the study institution and to serve as reference material to other researchers.

### **2. Literature Review**

#### **Overview of Online Clearance in Higher Institutions**

Online system has become a central element of the discourse on higher education (Cox, 2005). There seems to be an overall derive towards online system given the mountain need for flexibility in scheduling and the daily emergency of communication technology and capabilities, (Hillstock, 2005).

Online system is presented as a means of conveying instruction to an extensive learning community any place at any time, (Cox, 2005). Indicate that adequate designate online learning as the driving force and model for transformation in teaching, learning and formal schooling online course has the potential to provide learner individualized attention by the instructor, otherwise impossible in a large classroom environment. With the continued development of online system applications, many colleges and Universities have begun to offer online courses as an alternative to traditional face-to-face instructions. 67% of colleges and universities agreed that online education is the most logical long term strategies for their institutions (Hillstock, 2005). However, there are considerable hesitations rising predominantly related quality and student respectively to online system, Yang & Cornelius (2004). Just as their advantages there are also disadvantages to the online system instruction delivery method. There is evidence through previous research that student fill isolated or disconnected when not engaged in traditional face-to-face instruction (Graham, 2001), while other reports indicate large success.

There remains a lack of clarity whether online courses are as effective as traditional courses, Peirie & Feldman (2004). While there has been vast amount of research conducted on the advantages and the disadvantages of online system institution, little is known on how assessment is used in online classroom to monitor performance and progress, Liang & Creasy, (2004) and Hew et al, (2004) describe the evaluation of current online education system at three levels; the macro level, the meso level and micro level. The macro level is an online evaluation that access an entire online program, the meso level evaluation access individual online courses, and the micro level access the learning of the online student.

Online clearance system presents educational experience very different from standard face-to-face environment, Hew et al, (2004). When conducting a micro level courses evaluation, interest commonly lies in learner perception of the course experience pertaining to the level of comfort, ability to communicate with class mate and the instructor, as well as comparison to traditional face-to-face lecture. Many times the only means of evaluating learner perception is in the form of a questionnaire or survey. Although perception of online system can be extremely useful information, it is usually not sufficient to conclude the evaluation without expanding to learners understanding.

### **Online and Offline Systems in computer technology and telecommunications**

In computer technology and telecommunications, online indicates a state of connectivity, and offline indicates a disconnected state. In modern terminology this usually refers to an Internet connection, but (especially when expressed "on line" or "on the line") could refer to any piece of equipment or functional unit that is connected to a larger system. Being online means that the equipment or subsystem is connected, or that it is ready for use (Online and Offline from Wikipedia, 2019).

"Online" has come to describe activities performed on and data available on the Internet, for example: "online identity", "online predator", "online gambling", "online shopping", "online banking", and "online learning". Similar meaning is also given by the prefixes "cyber" and "e", as in the words "cyberspace", "cybercrime", "email", and "ecommerce" In contrast, "offline" can refer to either computing activities performed while disconnected from the Internet, or alternatives to Internet activities (such as shopping in brick-and-mortar stores). The term "offline" is sometimes used interchangeably with the acronym "IRL", meaning "in real life", (Reed, 2017).

### **Role of Information Technology in Academic System**

Nowadays the role of Information and Communication Technology (ICT), especially Internet in the education sector plays an important role, especially in the process of empowering the technology into the educational activities. Education sector can be the most effective sector to anticipate and eliminate the negative impact of ICT. Technology (Internet) in another side can be the most effective way to increase the student's knowledge, (Kaka, 2008).

Being aware of the significant role of ICT (Internet) in our life, especially in the educational activities, education authorities should be wise enough in implementing the strategies to empower ICT in supporting the teaching and learning process in the classroom. ICT is not just the bloom of the educational activities, but also it will be the secondary option to improve the effective and meaningful educational process.

The main purpose of the Strategy for Information and Communication Technology Implementation in Education is to provide the prospects and trends of integrating information and communication technology (ICT) into the general educational activities.

There are some unavoidable facts in the modern education; First, the ICT has been developing very rapidly nowadays. Therefore, in order to balance it, the whole educational system should be reformed and ICT should be integrated into educational activities.

Second, the influence of ICT, especially Internet (open source tool) cannot be ignored in our student's lives. So, the learning activities should be reoriented and reformulated, from the manual source centered to the open source ones. In this case the widely use of Internet access has been an unavoidable policy that should be anticipated by schools authorities.

Third, the presence of multimedia games and online games by Internet has been another serious problem that should be wisely handled by the educational institutions. The students cannot be exterminated from this case. They can have and do with it wherever and whenever they want. Schools, as a matter of fact, do not have enough power and time to prevent or stop it after school times. Meanwhile, most parents do not have enough times to accompany and control their children. So, the students have large opportunities to do with multimedia games or online games or browsing the negative and porn sites. Having been addicted, the students will have too little time to study, and even do not want to attend classes.

In such situation, education institutions play an important role to eradicate these problems. One of which is by facilitating the students to do edutainment or educational games. Schools can let their students be familiar with educational games adjusted by their teachers. Besides, they can also support and facilitate their students to have their own blogs in the Internet. A lot of WebB log providers are free to the users, such as WordPress. In their blogs, the students can create and write something, like an article, poem, news, short stories, features, or they can also express their opinion by an online forum provided in the Internet. They are able to share experiences throughout their blogs to others from all over the world. I think it will be an interesting activity for them, and it will lessen their time to visit the negative or porn sites existed.

By doing so, I think our young generation will get more and more information and knowledge by browsing in the Internet. They can also create innovation in web design that it may be out of the formal curriculum content, but it will be useful for their future.

### **3. Methodology**

The system methodology adopted here is Structured System Analysis and Design Methodology (SSADM) which focuses on capturing the structure and behaviour of information system into small modules that combine both data and process.

#### **Analysis of the Existing System**

At Federal School of Statistics, Enugu, the system of clearance carried out by graduating students is manual which is based on the use of pen and paper. In this case, student will obtain the paper clearance form from the designated office and fill it. The concerned student will carry the filled paper form from one department/unit to the other starting from his own department. Each department/unit will have to endorse with a signature to indicate clearance. The exercise is indeed stressful as the graduating student has to be physically present in order to meet with those who will clear him, and may spend a whole day or more to successfully finish the exercise.

#### **Strength of the Existing system**

The existing system of clearance at Federal school of statistics which is manual is not without some advantages. At least, it provides clearance at its level and also more beneficial to those who are not conversant with the modern technology.

#### **Weakness of the Existing system**

Due to the manual means being used by the institution in keeping information about student's clearance, a lot of problems are encountered which includes:

*Delay in processing clearance form*

*Absence of some key staff (who process clearance form) can lead to students repeatedly visiting a particular office in order to have his/her clearance form signed.*

*Loss of vital documents as the filing system is manual*

*Damage of documents due to fire incident.*

*Illegal removal of forms by fraudulent staff leading to insecurity.*

*Time wastage in retrieving a particular clearance form.*

### Analysis of the Proposed System

The proposed system will be online i.e. it will run on the Internet. It will be accessible through computer devices anytime, anywhere. The interface of the proposed system will be user-friendly. It makes provision for easy processing of clearance form. The proposed system is designed in such a way that it handles the flaws of the existing system effectively.

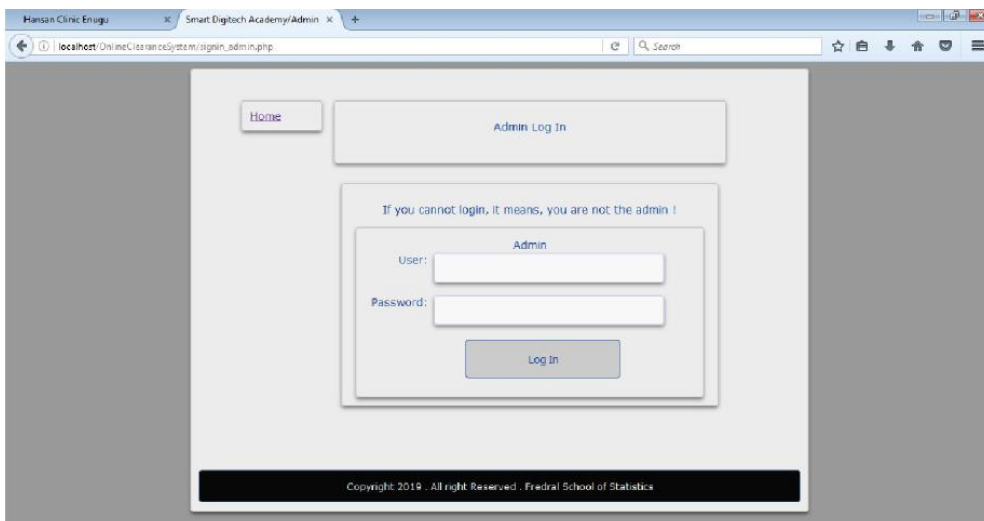
### Advantages of the proposed system

The advantages of the proposed system are given as follows;

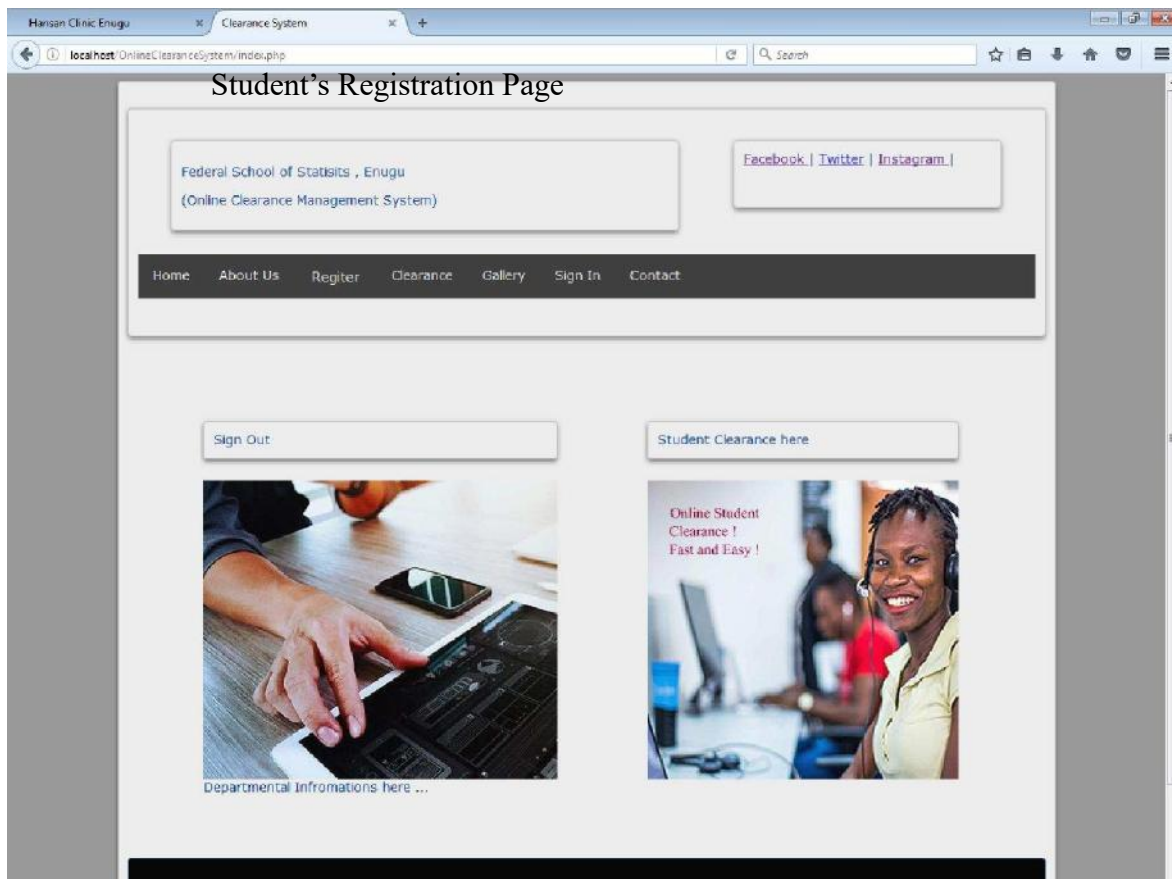
- i. It save a lot of time.
- ii. It is very convenient to use anywhere at any time e.g., office, bedroom or anywhere in the world.
- iii. It has efficient storage facility
- iv. Information processing is very fast and delay can be avoided.
- v. It is inexpensive to students and school management.
- vi. It also helps the school in reducing cost such as labour and stationery.

## 4. Results

Here, the proposed system was designed and implemented. The aim and objectives of the proposed system were achieved as indicated via the following diagrams.



Student's login Page



System Home Page

### Source Codes

```
<?php// Connecting to database
mysql_connect('localhost', 'root', ''); mysql_select_db('onlineclinic');

//Assigning the input controls to variables
$name=$_POST['name'];
$sex=$_POST['sex'];
```

```

$phoneno=$_POST['phoneno'];
$address=$_POST['address'];
$email=$_POST['email'];
//converting the collected data to binary to avoid hacking $name=addslashes ($name);
$sex=addslashes ($sex);
$phoneno=addslashes ($phoneno);
$address=addslashes ($address);
$email=addslashes ($email);
if (!$name || !$phoneno || !$email){echo "Some fields have not been entered,All fields are required"; exit;}
// Inserting the data items into the database table (staff_tb)
$query = "insert into register values('".$name."', '".$sex."', '".$phoneno."', '".$address."', '".$email."')";
$result=mysql_query($query);
if($result) {echo 'Registration successful!.' . '<a href="index.php"> Click here to continue
..... </a>' ;}else {echo "Invalid entries";} ?><?php
// Connecting to database
mysql_connect('localhost', 'root',
mysql_select_db('onlineclinic');
//Assigning the input controls to variables
$name=$_POST['name'];
$sex=$_POST['sex'];
$phoneno=$_POST['phoneno'];
$address=$_POST['address'];$email=$_POST['email'];
//converting the collected data to binary to avoid hacking
$name=addslashes ($name);
$sex=addslashes ($sex);
$phoneno=addslashes ($phoneno); $address=addslashes
($address); $email=addslashes ($email);
if (!$name || !$phoneno || !$email){echo "Some fields have not been entered,All fields are required"; exit;}
// Inserting the data items into the database table (staff_tb)
$query = "insert into register values('".$name."', '".$sex."', '".$phoneno."', '".$address."', '".$email."')";
$result=mysql_query($query);if($result) {echo 'Registration successful!.' . '<a href="index.php"> Click
here to continue </a>' ;}else {echo "Invalid entries";} ?>

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