**CHAPTER ONE**

**INTRODUCTION**

**1.1. BACKGROUND TO THE STUDY**

As the name implies online Post Utme registration and result checking system is a web based software developed for the registration of entrance examination in to the Federal Polytechnic Idah. For the past few years, candidate applying to study in the higher institutions have rapidly increased. For this reason, there is need to develop a web based management system to enhance the speedy development of the registration activities in the institution.

The system is designed to manage entrance examination registration, checking of result and verification of admission in Federal Polytechnic Idah (FPI).

The processes where formally managed manually in the institution till present time. The former method used in the school was a manual method whereby every candidate applying to study in the school need to travel from their various homes in other to get their application form which they will fill and submit back to the institution, and then proceed to make payment in the bank and later bring back the teller to the institution for submission and their details will be entered in a paper register in hand writing form which have several disadvantages such as data inconsistence, record redundancy, incorrect data and time consuming with several other disadvantages. The student will be issued a receipt which will be use as payment verification during the exams.

The students will also have to travel from their homes to school in other to verify their results after the exams and it is always placed in the school and the student will also have to travel to the school another time to check their admission status in other to know if they are been admitted or not.

The need for the pursuit of an automated web based system was needed to eliminate completely the effects associated with old system or method.

This particular project deals with all the problems of entrance examination, result and admission verification processing in the institution and also help to eliminate the problems which occurs when carried out manually. Due to several analysis on the existing method used in the institution, the need to design a feasible system that will follow strictly and a little of it computerized procedures with several other advantages that will help improve permanently on the hostel reservation processes is required. If the compatibility of both the old and the newly proposed system with a better graphical user interface (GUI) and more users friendly can be achieve, then the improvement in the efficiency of the system could also be achieved in order to eliminate every discrepancies related to the existing system.

**1.2 STATEMENT OF THE PROBLEMS**

The problems we identified with the existing system that call for the research to Design a new system in other to find a realistic and effective solutions for the discrepancies are:

1. Stress in managing the school admissions and Entrance Examination processing.
2. Lack of automation in the existing system.
3. High rate of insecurity of student information’s and details from unauthorized access.
4. Poor report generation ability to facilitate the decision making process of the hostel officers.
5. High possibility of data redundancy in the existing system.
6. Poor rate of easy accessibility and flexibility in the client side of Registering for entrance examination with the existing system.
7. Lack of good qualities and poor properties in the existing system to be rated high with the modern way of technological computing in the management information system

**1.3 AIM AND OBJECTIVES OF THE STUDY**

The aim for designing the system is to eliminate the entire discrepancies and problems that associate with the existing system in order to have efficient and effective reservation of hostel in the institution, to bring in all the features in using automated web based computerized system in order for the institution to go in line with the pursuit of technology and development in the modern world by bringing in database technique and web based application into the method of Entrance Examination and Admission management system in order to foster the modern technological pursuit in the institution

The objectives of the systems are;

1. To design a flexible Entrance Examination registration system and Admission management processing system that will help FPI generate several reports with different criteria
2. To design a flexible web application for Entrance Examination registration processes in other to ease the stress and remove other setbacks in hostel reservation process for the institution
3. To implement the design of The Automated web based Entrance Examination registration in Federal Polytechnic, Idah.

**1.4 SCOPE OF THE STUDY**

The proposed system when fully implemented will be managed effectively and efficiently in the Admissions and record Department of Federal Polytechnic, Idah in other to help them eliminate and solve some of the discrepancies existing with the formal manual method used in Conducting Entrance Examination registration and Admission verification in the institution. It also helps the newly Admitted Students to easily submit their necessary credentials and also enhance easy communication between the students and the school Administration throughout their admission processing and Entrance Examination registration by enabling the students do all their necessary steps of registration and admission verification from their various homes instead of the former manual method of travelling back to school in other to do any of the registration and exam processing steps.

**1.4 SIGNIFICANCE OF THE STUDY**

When this proposed system is implemented, there will be an improvement in the hostel reservation processing of the institution. The significance of the study are as follows:

1. Eliminating the stress faced by the school Administration in registering the students for Entrance examination in to the institution.
2. Help to improve the former manual method in performing Entrance examination and Admission verification in the institution.
3. Eliminate the stress faced by students in the process of registering for the institution entrance examination and admission status verification since students can now do that right from their homes without the need of visiting the institution.
4. Reduce the rate of data redundancy (repetition of record) faced in the former manual method.
5. Student record, even those that register for the entrance examination in the institution for several years can be retried and be processed since they are been stored in the database.
6. Help to improve the process of searching, editing and updating student information that is admitted in to the institution.
7. The maintenances of student information can easily be done compared to the old manual method.
8. It helps to eliminate all the paper and pen writing that comprises of several disadvantages like accuracy and maintenance.
9. Bring in technology appraisal to the institution.
10. Eliminates and prevent all the former unauthorized manipulation of data of admitted student in the institution.
11. It will bring several advantages mainly less financial expenses to the institution since more workers usually required to achieved the formal manual method is not required in computerized web based method.

**1.6 LIMITATIONS OF THE STUDY**

The limitation of the research are basically the most effervescent setback and challenges that would have disrupt the pursuit of the project research work and development, some were conquered due to our proper decision making while some of the challenges were still unsolved due to it extreme difficulties. The problems are:

1. Lack of financial stability towards setting up the data collection techniques and other requirement for the design of the proposed system
2. Lack of professional technical guide on the development of the new system.
3. Unavailability of sample record from the institution administration in order to facilitate the project research.
4. Poor responds and negative habit of the students towards responding to our interview on the effect of the existing system.
5. Lack of facilities required to build up the existing system to the standard required.

**CHAPTER TWO**

**LITERATURE REVIEW**

1. **REVIEW OF RELATED LITERATURE**

Higher institutions in Nigeria as in many other countries is confronted with growing number of students applying to study in the institutions, due to the factors such as increase in the population and higher individual standard of accepting quality education. Educational sector has been an issue of growing importance for National government and the peoples of Nigeria.

Online management system has considerably increased for the past few years due to the high rate of needed communication between the people around the world or in a Nation. Online registration system has played a vital role to its development in the recent years.

A report gives that so many organization be it Governmental or Non-governmental organizations, social groups, educational sector and so many other fields uses the online registration system technology due to reach out or communicate with their vast workers or members around the world or achieve a different perspective operation due to its enormous advantages.

The vast use of online management system in so many organizational sector today cannot be achieved without the invent and rise in the use of internet technology, which has gives room to people around the world to communicate easily and quickly just like the communication technology (phone calls e.t.c).

In order to reduce the risk of several disadvantages that associate with the use of manual method of manually managed system, like data redundancy (repetition) time consuming, insecure storing of information, economical factors and several defect in the use of manual method of processing information. The design of the computerized online entrance examination registration management system covers several features of the activities that were formally addressed manually in the higher institutions the Federal Polytechnic Idah when fully developed and implement.

The result of the research conducted in oxford university on the various advancement of computerized system in various field of the economy and the rate at which information technology has helped to achieve development and upgrade in the fields, it was concluded that the idea of online registration management system if fully applied or implemented practically in educational sector it will help to eliminate several setback faced in the registration activities and as such will play a vast role in achieving the aims and objectives of technological advancement in the sector. (Parker W. & Mucay, 2004).

On a research conducted in Nigeria to see the disadvantages of un-implementation of ICT technology in the Nigeria educational sector. The method used in entrance exam registration in several higher learning institution has not been efficient and effective as it is expected, especially in Federal Polytechnic, Idah, with several paper and pen work which result to record redundancy, and sometimes in other processing activities with several other disadvantages just due to lack of implementation of modern computerized technology to perform such process.

The knowledge and techniques of online registration system has been implemented in several organizations where there is need for registration of members for a particular purpose, also in education online registration has also been used by several higher institutions as a platform to communicate with their student at any part of the world,giving the students the opportunity to perform most of their school activities like payment of school fees, checking of result, hostel reservation e.t.c right from their home, also some examination bodies has also implement the use of online registration system to reach out to their various interesting personnel to register for their exams at any part of the country like the online jamb registration system, the Online WAEC Exam registration system , the online NECO and NABTEB Exams Registration system, e.t.c, some governmental organization has also implement fully the online registration technology to reach out to the individual citizens in the country like the recently conducted INEC ADHOC staff registration system provide by INEC for the Nigerian citizens to register for INEC ADHOC Staff Screening Program. At all these level online registration system have yielded the aim and objectives at which they have being designed for, and if the same knowledge is fully implemented in the process of PUTME entrance exam registration in Federal Polytechnic Idah will yield a spontaneous achievement.

The knowledge of online registration system has also been implement in the higher level of educational sector of every Nation, where students perform most of their required school activities from their home easily without the needs of travelling back to their schools, examples include the online hostel reservation system, online course registration system, online school fees payment system and so many others.

Every computerized management system is geared towards maintaining all the record of those involved in using the system and its full implementation will help to ease the several activities. They are always flexible and easy to use, friendly user interfaces for better interactive and its implementation in any field of management will help to bring in economical advantages among several others. (Oriko & Dimoji, 2010).

**DEFINITION OF TERMS**

**Registration**:

Process of formally keeping or recording of something. In this project is to keep the record of candidate applying for the entrance examination.

**Admission**:

Having the power ,the permission to enter or access a particular thing. In this project is to grant acces or permission for candidate to study in the institution.

**Online (web based):**

Online web based Applications are the type of application that runs in a web server, the application can be access anywhere in the world since is been hosted by a web server which uses internet access making the application very easy to use and less time consuming in sending data between the client systems and the servers. Web based application software’s also require a web browser application to display its pages in the client computer system where datas to be sent to the servers are been entered and transfer to the online web servers. The proposed is design to run and be implement in a web based platform so the student will be able to fully booked and pay for their respective hostel spaces without the need of travelling back to school.

**Management**

Management can simply be defined as the as the organization and the mobilizing of all human and material resources in a particular system for the achievement of an identified objective in the system.

**System**

Is a group of interrelated components of elements that works in a coordinated fashion to achieve a specific task . in the case of the study web base system is design to achieve an objective which is “Online hostel reservation system”.

**Information system**

An information system is a colletion of interrelated componrent that collect, process, store and provide as output the information needed to complete a business task.

**Management information system**

Computerized information system operates in parallel with the production in any organization. This system can be accessed from terminal place at strategic offices. It supplies management with information in all stages of operation in the company. By entering certain information, the management information system wil provide useful management information at any level appropriate for the user it also keep track of organization process at any level whether there is progress or failure.

**EXISTING SYSTEM (MANUAL PROCESSING METHOD)**

The existing system used in the federal polytechnic, idah for the registration of Entrance examination and Admission verification process in the institution was fairly manual method , the method which include several challenges like inefficient, difficult to access, too laborious and time consuming, lack of operational integrity, lost of records, stress face by students, data redundancy among others.

**PROPOSED SYSTEM**

Unlike the manual method of keeping records the proposed system should be able to store information, maintain files uploaded by the students, retrieve any required information by the administrator, well secured system, lack any form of unusual manipulation of admitted student’s record and cater for data redundancy. The system when fully implemented will also give the students the chance to register for their entrance examination, check their results and also verify their admission status right from their homes without the needs of travelling down to the schools which was formerly adopted in the formal manual method.

**IMPACT OF COMPUTER INFORMATION TECHNOLOGY**

Information technology is changing the world within which developing countries struggle for economic growth and survival (Gallilers et at 1995) such changes are matter of great significance because computer profoundly affects the central social economic functions of an independent world economy.

There are also element of truth in both glowing prophecies of computer benefit on mankind and the turbulent effect of information technology on markets, work and lifestyle.

There is little doubt that this technology will change every countries development opportunities. How developing countries manage the computer driven process of change will influence whether their development goals will be benefit from the technology and in what ways. Therefore, these change process required systematic consideration in the formulation and implementation of national computer and information policy. More important than the absolute size of computer related investment is the rate of change in the technology and its applications. Computer technology is not at the moment the most important problem facing any particular country, but it may well be the fastest changing component of any economics.

**PRINCIPLES OF COMPUTERIZATION**

Many students, professional, managers, layman and scholars are hungry for honest, probing discussion and the opportunities and the problems of computerization. This critical anthology introduces some some of the major controversies about the computerization in the society. For the purposed of these study a web based information system is a system design to enhance the work and services of all staffs in any field its implemented with t core advantages of making data’s and information’s readily available at any required time.

**MERIT OF COMPUTERIZED SYSTEM**

It is believed that some writers have argued that computerized system are central to developing a dynamic role of computerized systems, is not the only area of controversy, there are some other important issues concerning computerized system, which includes human work life, human safety, and critical computer system, education and democratization .

There is a considerable decrease in delay due to the speed at which computer process information. These also a remarkable decrease in the amount of paper work done, hence it saves money used in purchasing such papers processes that may be over looked by manual operations under presume are incorporated.

**DATABASE MANAGEMENT SYSTEM**

Mrs. Benson Iyare, unpublished lecture note (2013) defined a database as nothing more than a collection of related files. It comes to existence to overcome the limitation of file system and to reduce the burden to programmers and users. Database is an organized, integrated collection of data made available to all applications and users with little or no duplication or redundancy.

Patricia Ward and George Dafoulas (2006) defined database management system as a collection of programs that allow users to specify the structure of a database to create query and modify the data in the database and to control access to it.

There are three logical database structures which are as follows

1. Hierarchical DBMS
2. Network DBMS
3. Relational DBMS

Hierarchical DBMS: It uses a hierarchical tree structure. Hierarchical tree structure is made up of nodes and branches. A node is a collection data attributes describing the entity of that node. The highest node of hierarchical tree structure is called the root (e.g the chief executive of an organization). It is commonly referred to as tree structured DBMS because as the data records spread out under the main record (or root node). It resembles tree spreading out under a tree.

**NETWORK DATABASE MANAGEMENT SYSTEM**

The structured is essentially the same as that of hierarchical DBMS except that a member record can belong to more than one set. Network DBMS are more flexible than a hierarchical DBMS. It is important to note that a network can be a hierarchy but a hierarchy can’t be a network.

Relational DBMS: the user of a relational database management system perceives data as a series of two dimensional tables. There was no concept of a set although the word set was used in conjunction with relational systems the meanings vary. They are already the most common type of database to be found on mini-computer systems and simplified versions on them are well established as the most common type on personal computers. In a relational data model terminology the table is called a relation but to avoid confusion between a relation and a relationship between entities sometimes a relation is called a table, while every column in a relationship is an attribute.

It is important to know that relational model DBMS would be used for the purpose of this research in developing the web based entrance examination registration and Admission status verification system. The reason why the relational model DBMS was chosen for the purpose of this research are:

* The strength of relational DBMS are great flexibility in regards to adhoc inquiries to power combine information from different sources simplicity of design and maintenance and the ability to add new data record without disturbing existing program and application.
* It can relate any piece of information store in one file (table) to any piece of information stored in another file(table) as long as the two table share a common data element (field) called relational field or key.
* It also support Database Transaction system which can easily rool back an incomplete transaction or commit a transaction if no error or any form faillure in the execution of a group of transactions to the database.
* It is also ranking rate of ATOMICITY give it upper hands over other forms database structured.

**CHAPTER THREE**

**SYSTEM DESIGN AND PROGRAM DESIGN**

The database of the System was designed in structural related method of database management system and it is made efficiently to maximize the system memory. Then the use of MySql and php was fully utilized to achieve the design of the system.

User friendly graphical user interface (GUI) was also put into extreme consideration in order to achieve a user friendly program and its flexibility and the ease to use was all made possible in order to achieve the aims and objectives with which the system is design. Care was also taken to prevent any form of logical syntax and mainly run time error during implementation of the system. The system was also made flexible for future changes or updating.

All form of cyber security procedures was greatly consider and put into place for the safely utilization of the website in other to make sure students details and all information’s are kept safely from any form of website attacks or abuse.

**3.1 DATA COLLECTION METHOD**

The methods of data collection used in this project work are questionnaire method, data inspection method and interview method of data capturing.

During the data collection process we tried to access and evaluate all the record that was manually save or recorded by the hostel officers including the director of the officers were intensively interview on several setbacks and advantages they have been facing in the hostel reservation processes and we also try to set their respond to the support of the new system, several questionnaire were design to facilitate the decision and the research of the project, the questionnaires were distributed to the students and their reply were also access and several decision were derived from it.

All the above methods were used to effectively and judiciously satisfy the need for the development of the proposed system.

**3.2 DATA CAPTURING METHOD**

The data’s required for the proper operation of the proposed system are mainly the student details of which the students are going to enter in to the system at the time of their registration data’s like name, sex, age, level, department and other details, the use of scanner will also be required in other to get data like student passport, academic credentials and the bank payment teller into the system. The system has been designed to be more users friendly and well interactive in terms of getting data from the students.

**3.3 DATA STRUCTURE**

Among all the data structure technique have data structure was choose for the development of the system due to its capability to link one operation to another and the made operation of acquiring hostel in the involved departments working together and sharing of the information (student details) including themselves in order to achieve the aims and objectives of the system.

**3.4 FILE DESIGN AND INTERFACE DESIGN**

The proposed system was design intensively to enhance user friendly through a better graphical user interface (GUI) in order to ease its relation with users by making it easy to take input from the users and also display output of the result to the user with a beautifully design interface to enhance readability to cleanliness for the user view. The file design which happen to be the back end of the program is design MySql application and several measure were put into consideration in order to make sure that the system memory is well managed, and the issue of data overflow is prevented while security measures to secure the datas and informations in the database are also well put into place.

MySQl Server is Flat file database management system design to work in an intensive netqorked program whereby many application can communicate to it at any time relatively, is one of the best rated robust database Apllication system which suitable work perfectly with PHP programming Language, the server is in also design using Php.

The file comprises of one (1) database containing 15 tables, which are analyze as below:

1. Three (3) of the tables holds all the students submitted details which are related to the other by one particular field (student\_info, nd\_result, olevel\_result)
2. Three (3) of the tables are for the Bank Portal where student are to make payment for their Entrance exam registration and acceptance of admission letter any other bank login authentication (access\_temp, account\_code, bank\_acceptance, bank\_log\_error, and bank\_login tables).
3. Two (2) of the tables (hnd\_result, putme\_result) holds the result of the students and the Admission status of the students.
4. A table also hold the registration status of all the students.
5. Other tables include examination\_number, close\_accomodation and file\_server also encompases the total number of functionalities of the system.

TABLE (FILES) STRUCTURE

Database Name: fpi\_registration.

Tables (1) : student\_info

|  |  |  |  |
| --- | --- | --- | --- |
| Field Name | Data Type | Description | Data Size |
| Id | int | Primary Key | 11 |
| Student\_Name | text | Student Name |  |
| Gender | Varchar | Student Gender | 10 |
| DOB | date |  |  |
| state | Varchar | Student state |  |
| Local\_Govt | Varchar | Student Local govt |  |
| Perm\_Addres | Text | Student permanent address |  |
| email | Varchar | Student email address | 250 |
| Phone | Varchar | Student phone number | 15 |
| Relligion | Varchar | Student religion of worship | 50 |
| Guardian\_Name | Varchar | Sponsorship full name | 250 |
| Guardian\_state | Varchar | Sponsorship state | 250 |
| Guardian\_lgov | Varchar | Sponsorship Local government | 250 |
| Guardian\_phone | Varchar | Sponsorship Phone number | 15 |
| Guardian\_rellationship | Varchar | Sponsorship Rellationship to student | 100 |
| Guardian\_occup | Varchar | Sponsorship Occupation | 250 |
| Guardian\_PermAdd | Text | Sponsorship permanent address |  |
| App\_Type | Varchar | Apllication mode | 30 |
| App\_Level | Varchar | Application Level | 30 |
| First\_School\_Choice | Varchar | Second choice of course | 250 |
| Second\_School\_Choice | Varchar | Second choice of course | 250 |
| First\_Dept\_Choice | Varchar | First choice of course | 250 |
| Second\_Dept\_Choice | Varchar | Second choice of course | 250 |
| |  |  | | --- | --- | |  | **Reg\_No** | | Varchar | Student registration reg no (ND) / teller no (HND) | 30 |
| Exam\_no | Varchar | Unique Examination number generated after registration | 100 |

Table name: nd\_resul

|  |  |  |  |
| --- | --- | --- | --- |
| Field name | Data type | Description | Data size |
| id | Id | Primary Key | 11 |
| Reg\_No | Varchar | Student payment registration no | 50 |
| Institution\_Type | Varchar | Type of Institution student attended | 250 |
| Institution\_Name | Varchar | Name of institution attended | 250 |
| Institution\_State | Varchar | state of institution attended | 250 |
| Institution\_Lgov | Varchar | Local govt of institution attended | 250 |
| Institution\_School | Varchar | School of institution attended | 250 |
| Institution\_Dept | Varchar | Department of institution attended | 250 |
| Institution\_Level | Varchar | The Level of institution attended | 10 |
| Institution\_Date |  | The date of filling the form |  |
| Institution\_Matric | Varchar | Institution no | 30 |
| Institution\_GradeN | Varchar | Institution grade in no | 11 |
| Institution\_GradeA | Varchar | Institution grade in words | 20 |

Table name: olevel\_resul

|  |  |  |  |
| --- | --- | --- | --- |
| Field name | Data type | Description | Data size |
| Id | Int | Primary key | 11 |
| Exam\_Type | Varchar | The type of olevel exam | 50 |
| Exam\_Year | Varchar | The year of the Exam | 20 |
| Exam\_Month | Varchar | The month of the exam | 20 |
| Exam\_No | Varchar | Thestudent Examination no | 50 |
| Exam\_Pin | Varchar | The exam result checker pin | 50 |
| Exam\_Serial | Varchar | The exam result checker serials | 50 |
| S1 TO S8 | Varchar | The subjects offer for the exam | 250 |
| G1 TO G8 | Varchar | The grade acquired in the subjects | 5 |
| |  |  | | --- | --- | |  | **Reg\_No** | | Varchar | The student jamb registration no / teller no | 50 |
| Type | Varchar | The o’ level type | 10 |

Table name: acces\_temp

|  |  |  |  |
| --- | --- | --- | --- |
| Field name | Data type | Description | Data size |
| Id | Int | Primary | 11 |
| Pin | Varchar | Payment Pin | 250 |
| Serials | Varchar | Payment Serials | 250 |
| Regno | Varchar | Student regno | 50 |
| Hostrequestid | Varchar | Hostel request id | 100 |
| Bank | Varchar | Bank Name | 200 |
| State | Varchar | Bank state | 200 |
| LocalGov | Varchar | Bank Local gov | 200 |
| TellerNo | Varchar | Payment teller No | 100 |
| Date | Date time | Date of payment |  |
| Pinstatus | Varchar | Status of the Bank pin | 5 |
| Email | Varchar | Student email | 100 |
| Phone | Varchar | Student phone no | 20 |

Table name: account\_code

|  |  |  |  |
| --- | --- | --- | --- |
| Field name | Data type | Description | Data size |
| Id | Int | Primary | 11 |
| regno | Varchar | The student reg no / teller no | 50 |
| Transaction\_Id | Varchar | The transaction activation id | 150 |
| Date\_Activate | date | Date of activation |  |
| Bank\_Pin | Varchar | The bank registration payment pin | 150 |
| Activation\_Email | Varchar | The email use in activating pin | 250 |
| Transaction\_status | Varchar | The status of the pin | 5 |

Table name: bank\_acceptance

|  |  |  |  |
| --- | --- | --- | --- |
| Field name | Data type | Description | Data size |
| Id | Int | Primary | 11 |
| Amount\_Paid | Varchar | The amount paid by the student | 15 |
| pin | Varchar | The acceptance payment pin | 250 |
| regno | Varchar | The reg no /teller no of the student that paid | 100 |
| Bank | Varchar | Name of the bank | 250 |
| state | Varchar | state of the bank that made the payment | 250 |
| LocalGov | Varchar | Local govt of the bank that made the payment | 250 |
| TellerNo | Varchar | The no of the Teller use for payment | 10 |
| date | date | Date student paid in bank |  |
| pinstatus | Varchar | The status of the pin | 5 |
| email | Varchar | Student email address | 250 |
| phone | Varchar | student phone no | 15 |
| payment\_type | Varchar | The type of payment (FT/PT) | 10 |
| Level | Varchar | The level of the student | 20 |
| Full\_Name | Varchar | Student full name | 250 |
| Date\_Activate | Date | Date acceptance payment activated |  |

Table name: bank\_login

|  |  |  |  |
| --- | --- | --- | --- |
| Data field | Data type |  | Data size |
| Id | Int | Primary | 11 |
| Acces | Varchar | Bank Login Password | 250 |
| Acses2 | Varchar | Bank Login Password | 250 |
| Password | Varchar | Bank Login Password | 250 |
| Bank | Varchar | Bank Name | 250 |
| Last\_Login | Date time | Date of last login |  |

Table name: hnd\_result

|  |  |  |  |
| --- | --- | --- | --- |
| Field name | Data type | Description | Data size |
| Id | id | Prmary key | 11 |
| Reg\_No | Varchar | The student registration no | 50 |
| Student\_Name | Varchar | The student name | 250 |
| Point | Varchar | The student Point | 50 |
| Admition\_Status | Varchar | The admission status | 5 |
| |  |  | | --- | --- | |  | **Course** | | Varchar | The course of admission | 250 |
| |  |  | | --- | --- | |  | **Level** | | Varchar | The level of admission | 20 |
| School | Varchar | The school of admission | 250 |
| Admision\_Set | Varchar | The swt of admission | 10 |

Table name: putme\_result

|  |  |  |  |
| --- | --- | --- | --- |
| Field name | Data type | Description | Data size |
| Id | id | Prmary key | 11 |
| Reg\_No | Varchar | The student registration no | 50 |
| Student\_Name | Varchar | The student name | 250 |
| S1 | Varchar | The First Subject offer for exam | 200 |
| S2 | Varchar | The second subject offer for exam | 200 |
| G1 | Varchar | Grade in first subject | 5 |
| G2 | Varchar | Grade in second subject | 5 |
| score | Varchar | The student score | 50 |
| Admition\_Status | Varchar | The admission status | 5 |
| |  |  | | --- | --- | |  | **Course** | | Varchar | The course of admission | 250 |
| |  |  | | --- | --- | |  | **Level** | | Varchar | The level of admission | 20 |
| School | Varchar | The school of admission | 250 |
| Admision\_Set | Varchar | The swt of admission | 10 |

Table name: jamb\_result

|  |  |  |  |
| --- | --- | --- | --- |
| Field name | Data type | Description | Data size |
| Id | id | Prmary key | 11 |
| S1 – s4 | Varchar | The four subject offered in jamb | 250 |
| G1 – G4 | Varchar | The grade of the four subject offer in jamb | 5 |
| TOTAL | Varchar | The total score in the jamb | 10 |
| Jamb\_Pin | Varchar | The pin used for checking jamb result | 150 |
| Jamb\_Serial | Varchar | The Serials used for checking jamb result | 150 |
| Jamb\_Year | Varchar | Jamb exam year | 10 |
| Jamb\_RegNo | Varchar | Jamb registration no | 50 |
| RegNo | Varchar | The student registration no /receipt no | 50 |

Table name: File\_server

|  |  |  |  |
| --- | --- | --- | --- |
| Field name | Data type | Data size | Description |
| Id | Int | 11 | Primary key |
| Filename | Varchar | 100 | The name of file |
| Extension | Varchar | 5 | The file extension |
| Regno | Varchar | **100** | **The regno of the student that upload the fles** |

Table name: close\_registration

|  |  |  |  |
| --- | --- | --- | --- |
| Field name | Data type | Data size | Description |
| Id | Int | 11 | Primary key |
| Registration | Varchar | 5 | Status of the hostel booking |
| Acceptance | Varchar | 5 | Close acceptance payment |
| Level | Varchar | 5 | Close registration payment |

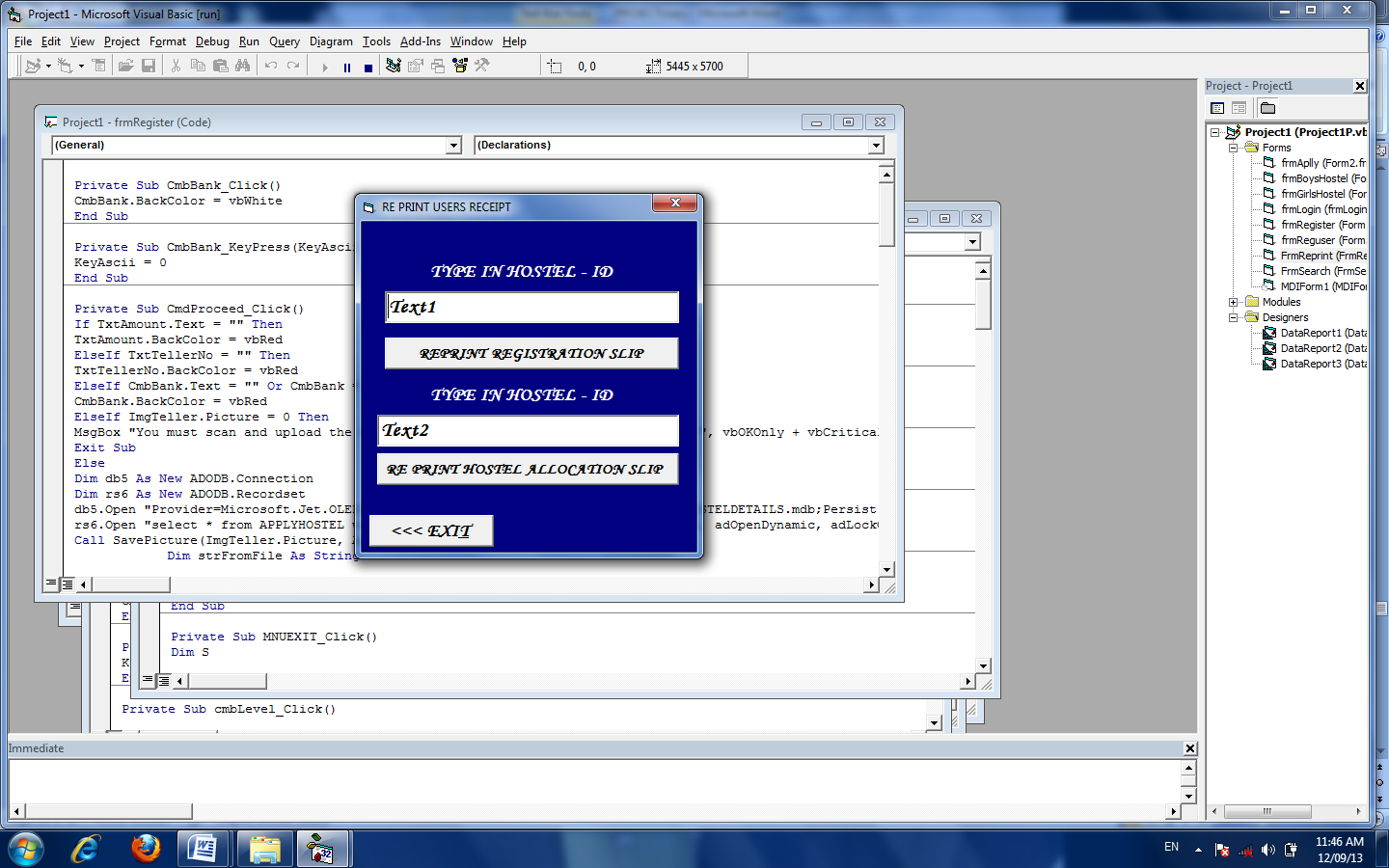
**USER** **INTERFACE DESIGN**

The user Interface design was fully prepared using HTML (Hyper Text Markup Language) CSS (Cascading style sheet) was used for the user interface design.

Bootsrap 3.0 Plugin was also included in the implementation to enhance the interface design.

JavaScript Ajax Programming Language was also applied perfectly to handle data Validation in the User Interface design.

PHP Database programming was also used to process the server side programming Logic with SQL (Structured Query programming Language).

**CHAPTER FOUR**

**SYSTEM IMPLEMENTATION AND EVALUATION**

This is the most important phase in system analysis and designs (SDLC) and implies the taking of the new system to productive environment. The implementation of the system was done in Federal Polytechnic, Idah Kogi State, with some information cases recorded at the institution within last five years.

**SYSTEM EVALUATION**

It explains the design of the new system and evaluation is to examine or check the program to see if it meets the actual goal of designing it. It helps to verify whether the new system actually meets the need and the objective that were originally seen.

**4.1 PROGRAM LOGIC**

It represent the project theory of change known as the outcome model or outcome logic set out to what a project will do and how it will do it. In the case of these proposed system the program logic has the following interface.

The web application is composed of three different sections which include the:

1. The Registration section which is mainly for the entrance exam registration processes.
2. The Bank Payment Section which is the page design strictly for the accredited banks for payment and issuing of exam registration and acceptance letter payment Pins and serials.
3. The Administrative Page is a page design to aid the web page administrator to manage the web portal in other to enhance the latest update in to the site and also manage all the datas uploaded by the students

All the three sections are well secured to meet up to the latest security practice in the development of modern web based application.

The Registration section comprises of the following InterfaceDesignand program logic

1. Home Page with a Splash screen giving details about the researcher of the project such as project topic, project supervisor and registration number of researchers. Is also display the latest news and update in the institution?
2. The payment activation page is the page where student will be able to activate their pin and serials the acquired from bank after making payment for the examination in the bank. After successful activation student will be give an activation code which will enable student login to their profile to fill all the online form with their details to complete the registration processing.
3. The Account Login Page is the form provided for the students to Login in to their Entrance Examination registration Account with their Registration number and the activation code they generated during their payment pin and serials activation.
4. My Registration Profile Page is the Home page for every student that successful login in to the school examination registration portal, it provide several menu options for the students to fully utilized in other to complete their registration processing.
5. Change User Details form is a form that provide avenue for every student to change their password and email (username).
6. Step 2 – step 5 form are the form provided for the students to submit their personal information details and academic credentials.
7. Registration Preview form is the form that enable the students preview all their submitted details given them the opportunity to either do their final submission or edit the data’s and information’s they have submitted.
8. Process acceptance letter form is the form provided for the students to activate their acceptance letter payment in other to enable them print acceptance letters.

The Bank section comprises of the following InterfaceDesign and program logic

1. The Administrative Login Page is a well secured authenticated page provide for all the choose Bank to Login in to the Bank Pages for registration processing.
2. The Examination registration payment page is the page where the banks record the details of all the students’ payment analysis for the exam registration and also issue out a Pin and serial number for the students to register for the examination.
3. The Acceptance of Admission Payment Page is the page where the banks record the details of all the students’ payment analysis for the Admission acceptance payment fee and also issue out a Pin and serial number for the students to Print their acceptance payment fee online.
4. The Edit registration page is the page provided only for the Bank Administrator to modify already registered bank details both for the registration payment and the acceptance of admission payment.

The Administrative section comprises of the following InterfaceDesign and program logic

1. The Administrative Login Page is a well secured authenticated page provide for all the Web portal Administrator to Login in to the Administrative Control panel page for auditing and management of the web portal.
2. The Administrative control panel page is the page where the web portal administrative is provided with several options to manipulate the web portal.

In this project the program flow begins with the Home page which comes up immediately one try to open the web portal from the web browser by typing fpi\_registration in the web browsers address bar, the home page also comes up with a splash(alert window) screen displaying a few details about the project like the project researchers and the web portal designers, the project supervispors and the main topic of the project.

The home page also contain links to other pages that is contain in the web project despite that some of the pages are prerequisites of the other. The home page was also enhanced to display the latest news updates of the schools with links to the full details of the new.

Exam registration processing:

To start a registration student must have paid a certain amount of money in the accredited banks in other to acquire entrance exam registration pin and serials, the student will then proceed to the school portal where he will activate the pin and serials acquired from the bank in other to get an activation code, activation code that will be required later by the student to continue the registration process. If the activation process was successful the students entrance examination registration Profile Account login details will be forwarded to the email the student provided during the registration process.

The student can login in to their entrance examination registration Profile Account Login portal at any time to fully fill in all the information required to complete their entrance examination registration processing. The student will be expected to upload a valid identification passport and some other academicals and personal information details which are made available at the pages from step 1 – step 5. After filling the whole forms the student will be required to submit finally the complete record or information’s in other to enable the student print examination slip which will act as a pass or identification slip for the student to participate in the exam.

Students can used other print menus in their profile to re-print their bank payment slip, bank activation slip and also download their examination permit slip at any time they login in to their account.

After the registration and the completion of the exam student can login into their portal any time to check and download their exam result and can also verify their admission status using the available menus provided in the students profile account. Every successfully admitted students will also be required to process their acceptance payment slip by paying a certain amount in the bank in other to acquire acceptance payment pin and serials which student must activate using the link process acceptance fee from the available menu option in the student profile account before the students will be able to print or download its admission acceptance letter.

The Administrative web page is the page where the web page administrator can close or stop the Entrance examination registration process and editing of details so they wont be junk of extra false information after the registration is over. With some other operation the administrator can perform to keep the full optimum performance of the website.

4.2 CHOICE OF PROGRAMMING LANGUAGE

The programming language used in the development and implementation of the software is PHP (Personal Home Page) Server Programming Language.

PHP is a server-side scripting language designed for web development but also used as a general-purpose programming language. It was originally created by Rasmus Lerdorf in 1994 and now php is installed in over 2.1 million web servers. The reference implementation of PHP (powered by the Zend Engine) is now produced by The PHP Group. While PHP originally stood for Personal Home Page, it now stands for PHP: Hypertext Preprocessor, which is a recursive acronym.

PHP code can be simply mixed with HTML code, or it can be used in combination with various templating engines and web frameworks. PHP code is usually processed by a PHP interpreter, which is usually implemented as a web server's native module or a Common Gateway Interface (CGI) executable. After the PHP code is interpreted and executed, the web server sends resulting output to its client, usually in form of a part of the generated web page – for example, PHP code can generate a web page's HTML code, an image, or some other data. PHP has also evolved to include a command-line interface (CLI) capability and can be used in standalone graphical applications.

The canonical PHP interpreter, powered by the Zend Engine, is free software released under the PHP License. PHP has been widely ported and can be deployed on most web servers on almost every operating system and platform, free of charge.

The programming language was considerably chose because of its several advantages among other programming language its event driven programming language, good integrated with other client side programming like the javascript and html to enhance the client interface design, it has the ability to also work with multiple database packages (SQL, MYSQL, DBASE, Oracle SQL) makes it suitable for the design of this web base application because of its facility for object oriented programming, it can as well handle large data transaction with multiple users at some time, it has good database engine use in optimally processing Database information.

PHP is a third generation program design to be easily learned and used by programmers.

4.3 HARDWARE AND SOFTWARE SPECIFICATION

For the project to be fully implemented the need of several hardware which is the physical component that will be used to accomplish the operation of the system and the software a set of External program that will help or work will the system to ensure its optimum operation.

The required hardware’s including:-

1. A standard keyboard and mouse
2. A printer
3. A scanner
4. A Modem (for Internet access)
5. A Network Ethernet Port for any system that must access the website
6. A processor (at least Pentium 4 with speed 1.4 MHz)
7. UPS (Uninterrupted Power Supply)
8. Colored super visual Adapter monitor (at least 25 inches)
9. RAM (Random Access Memory) at least 1GB.
10. Stabilizer (at least 240kw)
11. Hard disk (at least 40GB)
12. Ventilation devices (cooling fan, air conditions)

The required software needed for the optimum operation of the system

1. window operating system (at least window 7)
2. A Web Browser Application at least of version 2008
3. Photo paint application ( at least 2005 version).
4. Acrobat PDF reader at least version 11

4.4 PROJECT **IMPLEMENTATION**

If the proposed system is fully achieved, The system will be fully implemented and utilized in federal polytechnic, Idah Admissions and Record department and all its required evaluation, testing and any other required future maintenance or updates will be handled by the officers in the department in order to ensure proper and effective operation of the system.

4.5. CHANGE OVER PROCEDURES.

This is the process of moving from the old system to the new system. It will be bad if a system is design and abandoned , but for the new system to become fully operational changeover must take place. Conversions from the old system to the new system have to be done carefully to avoid costly mistake which might not be apparent until the system become fully operational. These are four basic method of changeover to a new system these are:

1. Parallel changeover: this is when the new system and the old system are operated simultaneously to sometimes later the output will be compared. It is a method used to test the efficiency of the both systems, the method is very costly
2. Direct changeover: as soon as the new system is designed or produced, the old system is destroyed i.e the old system is immediately discontinued and the new system become operational the approach represents the ultimate confidence in designing the new system. It is believed that direct changeover is the most effective and appropriate approach for the proposed system.
3. Pilot approach: this method is close to parallel method and is a better approach. Here current data is processed using the old methods while old datas is been processed using the new method.
4. Phase method: this is the conversion in which he software is tested or used within a department before circulating it down to other departments. i.e the organization ease in to the new system step at a time, so that the entire users will be using part of the new system.

After several analysis on the various type of change over procedures we have in implementing the proposed system in the institution, the researchers preferable choose to implement the system using direct cutover change over method over the parallel, phase and pilot change over procedures due to its characteristics of using moving directly to the use of the newly system in other to facilitate changes immediately is been tested in and validated to be efficient in the Institution.

**CHAPTER FIVE**

**SUMMARY, CONCLUSION AND RECOMMENDATION**

**5.1 SUMMARY**

A computerized web based automated information system has been developed to manage the entrance exam registration and admission status verification processes in Federal Polytechnic, Idah in order to convert from the conventional partial manual method formally used for entrance exam registration and admission status verification processes in the institution to an automated processing which will play much role in reducing several predicament face in using the manual method when fully implemented in the institution for its purpose of design.

**5.2 CONCLUSION**

The proposed system has been developed with much care and several analysis been carried out to facilitate the conclusive decision making process during the pursuit of the system, the most important aspect of the research is to achieve the aims and objectives of converting manual method formally used in the institution to a computerized system, of which the newly design system has judiciously and efficiently achieved after passing through all the system evaluation processes and all the stages of system development cycle.

The proposed system has been design following strictly the formal procedures required for manual entrance exam registration and admission status verification in the institution with some technological advances which has been compound to eliminate several discrepancies in the formally used conventional manual method.

3.3 **RECOMMENDATIONS**

**The research recommends the following:**

1. With several research works towards the achievement and proper implementation of this project, several challenges were encountered during the research of which some were conquered due to our proper decision making while some of the challenges are still unsolved due to its extreme difficulty and unavailable technical and productive resources. We there by recommend any further research should either upgrade or maintain the functionality of the system to be more analytical towards eliminating several setbacks related to the system and make sure the required resources needed for the development are made available, As the system has been made flexible for further development and upgrade.
2. Proper implementation, maintenance of the system in the institution of research and training of personnel that may be using the system as it will help eliminate the paper and pen work, slow process, human labor and cost of implementing manual system formally used in the institution and keep the proper operation of the system.
3. the technology behind these computerize web based entrance exam registration and admission status verification should be fully implemented in several other fields like staff registration system, Press Club registration system and so many other fields that may require registration of personals information or that involve keeping of record for proper management and processing.

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