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Software Development for NYSC Mobilization and Posting in Nigeria

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Abstract

The objective of this academic work is to design software for NYSC mobilization and posting. What led to this study is the unstructured way of posting and mobilization, and the problem of fake NYSC members being mobilized. The research method adopted is top down design. The software develop method used are VB.Net and structured Query Language (SQL) Server. The result of work is to design a software that will successfully post student and mobilize them to various state, without fake mobilization.

Key Words: Software, Development, NYSC, Mobilization, Posting

1.1 Introduction

The national youth service corps (NYSC) is an organization set by the Nigerian government to involve the country's graduates in the development of the country. There is no military conscription in Nigeria, but since 1973 graduates of universities and later polytechnics have been required to take part in the national youth service corps (NYSC) program for one year. This is known as national service year, corps members are posted to cities far from their city of origin. They are expected to mix with people of other tribes, social and family backgrounds, to learn the culture of the indigenes in the place they are posted to. This action is aimed to bring about unity in the country and to help youth appreciate other ethnic groups. There is an

orientation period of approximately three weeks spent in a camp away from family and friends. After the orientation process corps members are posted to the areas of primary assignment. There is also a passing out ceremony at the end of the year. The program has also helped in creating entry-level jobs for a lot of Nigerian youths. An NYSC forum dedicated to NYSC members was recently built to bridge the gap amongst members serving across Nigeria and also serves as an avenue for corps members to share job information and career resources as well as get loans from the national directorates of employment. The NYSC is faced with the following problems due to their manual method of handling information:

- Poor handling of corps members' information
- Time wastage in searching for information
- Data redundancy

1.2 Objectives of the study

The objectives of this project are as follows:

- To design an information system that makes data access easy for corps members.
- To design a system that can automatically post corps members to their areas of primary assignment.
- To design a system that can help the NYSC management to supervise corps members.

This project covers the design and Development of information system for the NYSC orientation camp.

2.0 Literature review

2.1 Review of related literature

The decree set up a National Directorate comprising a chairman, the Director-General, representatives of committees of vice chancellors, rectors, the armed forces, police, the Nigeria employers' consultative association and time special members. The Directorate is the governing and policy making body of the National Youth Services Corps. The Director General is the chief Executive of the scheme while the coordinator is in charge of the state secretariat.

The Decree also provides for the establishment of a Governing Board in each state of the federation. The state Governing Board has a statutory responsibility to assist the Directorate in the smooth operation of the scheme in the state.

The Decree also established local governing committees and State Zonal Officers to assist in the operation of the scheme at the grassroots levels.

Four phase programme of the NYSC

The four phase programmes of national youth of the national youth service corps is as follows;

Mobilization

This entails collections and collation of data on all prospective corps members from the various corps producing institution nationwide whose graduates qualify for enlistment into the scheme. Nigeria graduates from foreign institution report directly to the directorate headquarters Abuja, for the evaluation of their certificate preparatory to deployment. Foreign-trained graduates should note that only national who graduated before they turned 30 are eligible to serve irrespective of their age on arrival in Nigeria, it is age at graduation for the first degree that matters.

Orientation programme

The orientation programme provides the first venue for affecting the desired change of attitude, as participants receive training in preparation for their next assignment of selfless and patriotic service to their fatherland. The purpose of the course is also to introduce corps members to and familiarize them with the ideas of the youth corps scheme. It is compulsory for every participant to be inducted through orientation training before service; nobody joins the orientation prior to service.

Primary assignment

Posting

The national youth service corps takes care to avoid posting that result in wastage of human resources. Corps members are therefore, as much as possible; posted to areas relevant to their discipline although sometimes national need may override this consideration.

Reposting

Wrong posting or underutilization of corps members, when established is corrected through reposting by the state NYSC secretariat.

Procedure for Relocation

A corps members seeking relocation away from his state of service shall address an application to the director-general through the state of service attaching necessary documentary evidence to support or aid the request. The state coordinator will forward the application to the director-general with his comments. He is not to suppress the application either recommended or not. A corps member who has applied for relocation and except under unusual circumstances shall continue to serve at his duty station if until necessary approved relocation is received from directorate.

Community Development Service (CDS)

A) In identifying with the current national objectives, the NYSC CDS has ventured into agriculture thus several corps members who specialize in agriculture and allied disciplines and who are same posted within the same locality are organized to work in rotational schedules on the farms.

Furthermore, the generality of corps members are expected to undertake a year round basis in addition to their primary assignment, at least one community development project in their neighborhood, in groups. After the consultation with the community people. Some suggested projects under the year round community development programmes are as follows:

- i. Mass literacy: each one teaches one or funds the teaching one.
- ii. Technologies/scientific inventions and fabrications.
- iii. Organizing local people to take more interest in indigenous art, drama, and music and dances.
- iv. Public health education, immunization and health care delivery preventive and curative horticulture, tree planting-landscaping environmental beautification.

B) Encourage by the success of the infrastructural construction. The management of NYSC scheme has diversified into some commercial ventures

such as; tailoring, printing, food production and processing. Cottage Industries, Using Local Raw materials and Corps Manpower Resources.

Winding up programme and passing out parade

During the last week of the service year corps member are organized into groups to evaluate and appraise the service year their suggestion, recommendations and proposals are studied, analyzed and subsequent used as basis to further improvement of the scheme. The service year is rounded off with a passing out parade usually in the state capital, during which certificates of national service are issued to corps members, and special honors conferred on those corps members, whose performance during the year was outstanding both within the state and national levels.

Orientation process for prospective (NYSC) members

Orientation Course/Duration

The orientation course holds for three weeks (21) days usually from Tuesday. Registration commences on the Tuesday, the camp opens and closes usually the following day, Wednesday by 12 midnight. At the end of the course, corps members are given posting letters to their various places of primary assignment.

The orientation course is designed to achieve the following objectives of the scheme:

- (i) To give the corps members a better understanding of the objectives of NYSC scheme and enable them to internalize its ideas.
- (ii) To familiarize corps members with their new environment in their political, cultural, social and economic settings.
- (iii) To instill discipline in youths.
- (iv) To instill in them the spirit of collective responsibility.

Registration

One year national service begins from the date one is being documented for service at

the NYSC orientation camp, the stages of registration is as follows:

- Submission of call up letters (do not laminate the call up letter)
- Presentation of your last institution ID card for screening.
- Presentation of your original certificate/statement of results for screening. After screening of the above you will be issued with the following:
- State code number, which is exclusively yours.
- A meal ticket (card)
- A file to house the call up letters, photocopies of your credentials and other NYSC forms you are expected to complete.

Meal tickets/feeding

Corps members are centrally fed throughout the orientation period. Upon the completion of registration, meal ticket are issued to corps members. Corps members are called upon to participate in cooking and serving of food on platoon basis.

Accommodation on camp

Accommodation is provided on the basis of first come, first serve. Note that it is the duty of corps members to take proper care of their mattress, and ensure that the hostels are clean throughout the period of the orientation course.

Orientation Broadcasting Service (OBS)

The OBS is the only recognized media outfit at the camp. This service is designed for corps members where camp news, events and announcement are relayed to them. The OBS functions are carried out by corps members. Mostly by the mass communication and English graduates plus the graduates from allied disciplines as well as those who have interest. Technicians are also very much needed to facilitate the smooth running of the OBS.

Platoon and platoon activities

One of the major high points of the orientation course is the platoon and inter-

platoon activities. There are ten platoons on camp, platoon 1 to 10. Every corps member automatically belongs to one of these platoons. The distribution into various platoons is done by the administrative officers at the registration points based on the last digit of corps members' registration number. Activities on camp like physical training, early morning drills, and endurance are carried out on platoon basis. So your platoon is your own clique.

Another interesting aspects of the course, is the inter platoon competitions. Prizes are awarded to the best platoon's platform in such activities as quiz competition, cooking, competition, socials etc.

Kits items/mode of dressing

Kit's items are issued to every corps members during the registration. They include the following:

Khaki shirt/khaki trouser -----	1
pair	
Ceremonial cap -----	1
Crested NYSC vests -----	1
Belts -----	1
White physical exercise (PE) shorts-----	2
Jungle boots -----	1
White canvas shoes-----	1
White t-shirts-----	2

Discipline

Discipline is the bedrock on which orderliness; progress of any individual, community or nation is assured. Any act of indiscipline during the orientation and indeed throughout the service year treated with appropriate sanction.

Security

Every camp resident has a responsibility to be vigilant and security conscious. Corps members are advised to take proper care of their valuables. The NYSC management has no policy which offers replacements or compensation for lost items. The police have the primary duty to protect life, property and ensure general security on the camp. Corps members are advised to co-operate with the law enforcement officers.

ID CARD

The importance of identity card cannot be overemphasized. It is a document which each corps member must carry at all times. It must be produced on demand, if lost; an official report must be made by the bearer to the camp director. ID cards are however replaced on payment of a fee of 200naira and submission of police reports, a court affidavit and an application letter.

Medical Care

24hrs medical care is provided on camp at the camp clinic manned by corps doctor, nurses, pharmacists etc corps members are warned against self-medication except if prescription is by personal physician.

Camp Market

At the orientation camp, there is the price monitoring committee charged with the task of ensuring that traders sell quality products at reasonable prices to the corps members.

Socials

The NYSC organized activities in which people meet for pleasure after the day's rigorous activities.

Posting

Deliberate efforts will be made to ensure that corps members are posted to places relevant to their specific discipline and skill where their services are most needed. It is however hoped that where this is not possible, the affected corps member should show understanding and maturity in the spirit of national service.

Relocation

This is the process by which corps members seek to leave one state for another. This can only be approved on the grounds of ill health (given by a certified medical practitioner) and in marriage cases.

Exeat

Corps members must obtain exeat before going out of camp. The camp director gives

exeat when necessary and such corps members should go out in their NYSC uniform.

Religious activities at orientation camp

Corps members are allowed to practice their religion at the orientation camp.

Corps allowances

The account department takes care of corps member's entitlement:

- Transport allowance payable on arrival at the camp
- Bicycle allowance (for members during orientation exercise)

Prominent activities on camping

They are as follows:

- Military parades/drills.
- Man O' war activities.
- Social activities (football, marching, volleyball)
- Endurance trek.

3.0 Methodology and system analysis**Methods of data collection**

The methods of data collection used in this project are:

(i) Observation method

Due to the importance attached to the collection of accurate information from the right, authentic and reliable source, information was gathered on observing the activities that took place in the NYSC orientation camp.

(ii) By browsing method

Information was gathered from e books, journals, publications and articles concerning computerized NYSC orientation information system.

Data Analysis

In analyzing the collected data it was seen that the staff find it hard to get the necessary information needed in the processing and registration of corps member's information because of time factor.

3.2 Analysis of the existing system

System analysis is the procedure by which activities in an organization (NYSC orientation information system camp) are studied with the aim of determining how to operate it most efficiently. It is essential for a thorough analysis of the present system. However the level of success achieved in carrying out a work of this dimension depends on the methodology adopted. From the analysis of the current system the following conclusions are drawn:

- (i) The staff allocates registration form manually.
- (ii) Registration forms are stored as hard copies.
- (iii) Difficulties are experienced in getting information about the corps members.
- (iv) Difficulties are experienced in getting in touch with the NYSC director.
- (v) Difficulties are experienced in during renewing and updating of corps members profile and NYSC policies.

Limitations of the existing system

The limitations of the existing system are:

- (i) Poor filling system.
- (ii) Poor storing, processing and accessibility of data/information.
- (iii) Data redundancy.
- (iv) Poor database management.
- (v) Lack of data integrity.

System design

System design is the process of defining the architecture components, modules, interfaces, and data for a system to satisfy specific requirement. It is the application of systems theory to product development. There is some overlap with the disciplines of system analysis, system architecture and system engineering.

The physical portion of system design is broken down into three parts namely:

- User interface design.
- Data design
- Process design

User Interface

This has to do with how users add information to the systems and how the system presents information back to them.

Data Design

Data design has to do with how data are represented and stored within the system.

Process Design

This has to do with how data moves through the system and with how it is validated, secured, transformed as it flows into, through and out of the system.

Registration Form

Matric No

Name

Address

Sex

Date of Birth

Age

Marital Status

Phone No

Email

State of Origin

Religion

Nationality

L G A

Extracurricular Activities

Health Status

Qualification

Institution

Service year

Dept

State (school)

Approval date

Call up number

Registration

Cancel

Submit

The system flowchart

Input data

Input From

The Keyboard

CPU

Disk

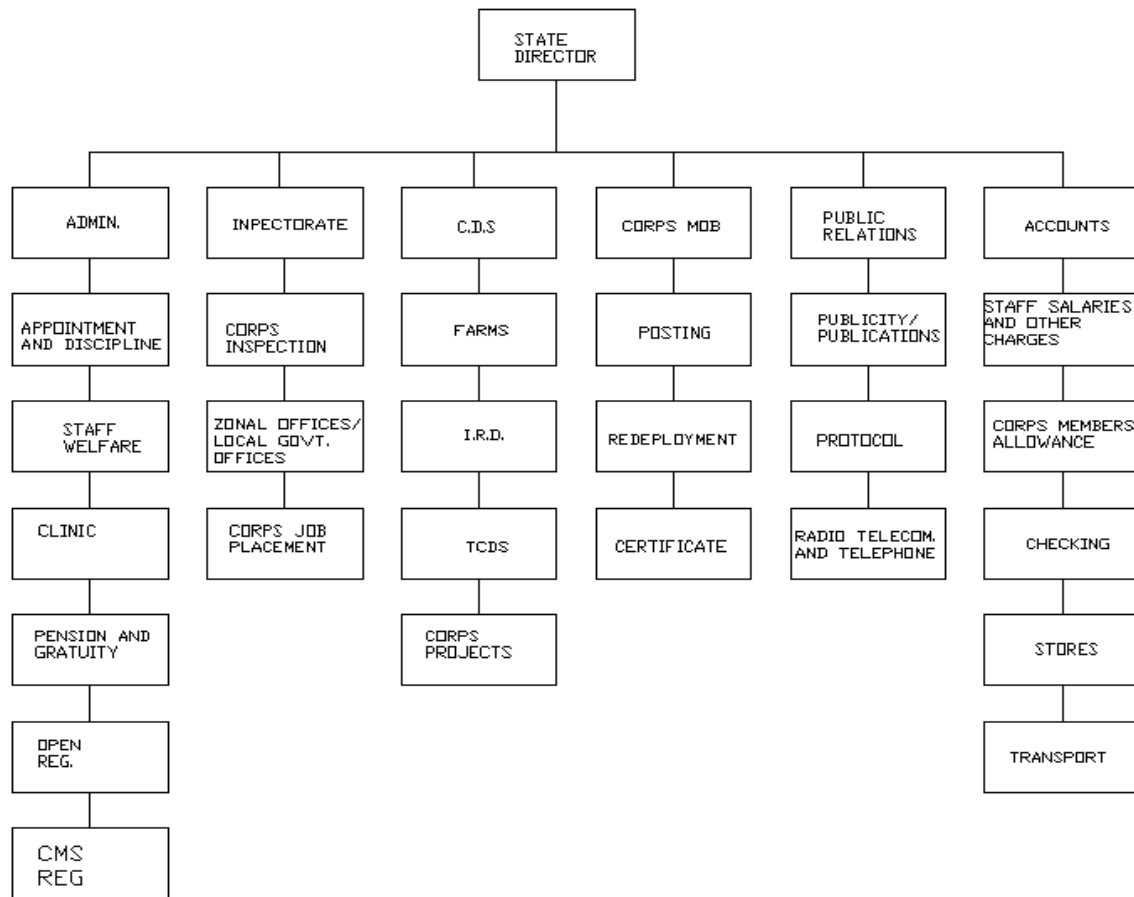
Storage

Output

Report

Organogram

FIG 3.1: The System Flowchart



In the above diagram data is being typed into the computer through the aid of the keyboard. The CPU performs the arithmetic and logical operation (report) on data taken from the memory (disk storage) or on information entered through some device like keyboard. The information is now displayed in the monitor.

The Top Down Design

Main Menu
Administration
NYSC
Registration
Members
Update
Query
Search
Report
NYSC List

View corpers

About us

Exit

Posting

Report

It shows the information flow of the designed application software, from admin to NYSC. And how corps members are posted to their various areas of primary assignment.

Weakness of the present system

As stated earlier the use of manual method to collect, process and approve projects departments is prone to errors and before the introduction of web exchange, manual ways were employed in the collection of students data, processing of information and approval of projects; below are some basic problems accounted from the use of

the manual method for project collection and approval at the department.

1. Poor speed in processing of a student's registration mobilization and posting.
2. Students queue up waiting for the attention of the NYSC staff.
3. Time spending and clustering at the office.

Using manual methods for processing projects at the department has encountered a lot of problems which include the following.

1. Slow operation
2. Crowded environment (i.e queue)
3. Much stress on students and staff and
4. Inaccuracy in proof reaching.

3.3 Feasibility study

In the development cycle of this proposed system. Feasibility study can be seen to do with the process of determining whether or not the system can reasonably be expected to be effective solution to the limitations of the manual ways of project allocation and approval I the department.

If this stage of the software development life cycle is successfully passed, it gives birth to the INVESTIGATION, ANALYSIS, DESIGN, PROGRAMMING, and IMPLEMENTATION AND MAINTENANCE.

Finance

Formal documents representing the transaction of a business, individual or the organization, financial records maintained by most businesses include a statement of retained earnings and cash flow, income statement and the organization balance sheet and tax returns. Keeping financial record organized is a key element in a successful business.

System design and implementation

4.1 Objective of the new system

If well implemented, some of the benefits of the automated school fees payments system are;

1. Instant payment validity: Once the student payment has been made automatically, there will be a quick capture of the payment with a notification of the bursary database.
2. Consistency of data: The occurrence in using fake receipt for clearance will be eliminated, there will be an improved robustness of processing of payment.
3. Accuracy in calculation: High degree of accuracy in calculating and recording of student school fees payment will be ensured, eliminating the chance of miscalculation.
4. Reliability and efficiency: A more effective and efficient means of payment that will proved a reliable and transparent system devoid of personal inclination and interest.
5. Security of data: Ensure the rightful access to student payment of fees, giving information to the right user and ensuring the safety of student records.
6. Alleviate stress and over-queue: This would alleviate the problem of stress of over queuing of students during fees payment and and mobilization in the NYSC portal.
7. Updating and error checking: Promote well ensured error-checking which is the verification and validation of payment that would bring up adequate update of data.
8. Record maintenance: Well easy in amending and maintenance of student record in regards to payment of the

specified dues and mobilization with posting.

4.2 System design

The system design follows a visual basic format that will replicate what the online project is to accomplish so as to give a prototype in the proposed project.

4.3 Algorithm

The algorithm of the program is as follow:

1. Start the program

Database Design

NAME	DATA TYPE	SIZE
Full-name	Text	30
Mat-no	Number	7
Faculty	Text	10
Department	Text	15
Level	Number	7
Sex	Text	7
Image	Text	7
D.O.B	Number	10
Phone	Number	15

TABLE 3: Program module specification

2. Login to proceed or register
3. Make online payment
4. Capture bio-metrics
5. Print out your call-up number/letter

4.4 Specification

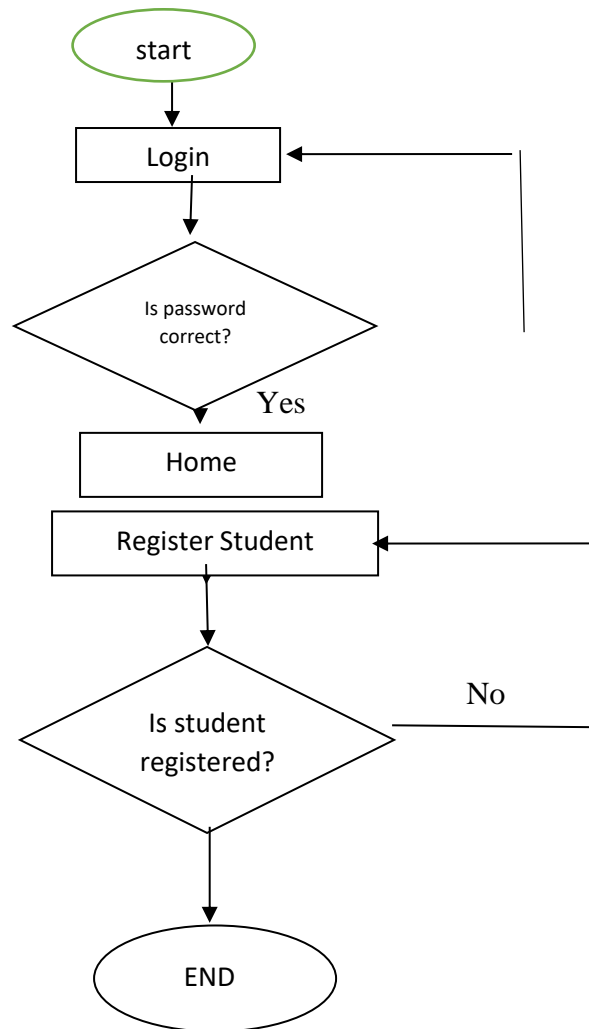
Database Specification: The database is designed using the Microsoft Access. Below are the table for the database.

Table 1:

Table 2:

S/N	NAME	SPECIFICATION
1	Frmlogin	This is the login screen/security module
2	Frmmenu	Software control center
3	Frmregister	Student profile input form
4	Frmlog	Student security module
5	Frmyear	This is where the student select year
6	Frmlevel	This is where the student choose level
7	Frmmode	This displays the payment mode
8	Frmtype	This displays the payment type
9	Frmbersary	This shows the bursary record
10	Frmadmin	This shows the database data

Overall Data Flow Diagram (ODFD) of the new system (PROGRAM MODULE FLOWCHART)



- **System Requirement**

The system requirement consist of the hardware and the software that enables the package being developed to run effectively.

- **Hardware Requirement**

To run the package, the hardware requirement that need to be in place include; computer system, IBM or Microsoft compatible, Random access memory (RAM) size of at least 46mb, 14 LCD flat screen monitor, standard keyboard, laser jet/ desk jet printer, Pentium iii of speed at least 288 HZ, writer for security purpose, 220 volt power supply, air conditioner for cooling down the system to prevent overheating and dust.

- **Software Requirement**

The required software for this program too run include; Microsoft visual basic 6.0, windows 98/2000/XP operating system, Microsoft access 1997 or 2000, antivirus.

Choice of programming language

Programming is the act of writing a computer program. A program is a set of instructions that controls the action of the computer. To communicate effectively and efficiently with the computer, one needs a programming language.

There are a thousand and one programming language but each of these languages performs some specific task which depends on the nature of the program and the task to execute. Some of this programming

language include: ALGOL, BASIC, PASCAL, COBOL, FORTRAN, LISP, and PROLOG. But for this research work, Visual BASIC 6.0 in conjunction with Microsoft Access was applied for easy design of this project.

Visual BASIC is one of the high levels, object oriented programming language. It has a lot of graphical tools and high level construct which makes it easy to have and ideal running application.

Visual BASIC is a visual and event driven programming language. It requires you to just drag and drop any graphical object anywhere on the form.

Visual BASIC as a programming language is being used in the areas of developing an automated student school fees payment system.

4.5 Implementation

Site preparation for hardware implementation

The following factors must be considered for a successful system implementation.

- i. Informing the user, be it the staff or the student on what the system does and how to make the system to do what it should do.
- ii. Setting recommended physical base for the system, i.e making the physical arrangement necessary for implementing the new system this has to do with the provision of some requirement for the new system implementation.
- iii. File or database conversion must also take place by transferring the required information from the manual base to the computer-base database.
- iv. The change-over procedure should also be taken into consideration. This is the process by which the old system is left for the new system. There are different types of this change-over

procedure, but the parallel form of change-over was taken by the researcher because it is the most secure method of moving from an old system to a new system.

- v. The software or system testing is another important factor to be considered as it deals with the test requirement which the system undergoes before being seen as approved package.
- vi. Maintenance of the system comes up once it has been developed, tested and installed. It is normally the developer of the system that takes change of the maintenance for a period of time.

Hardware and software installation

Installation is the process of physically placing the computer equipment on site, putting in the program and making it operational. After the system installed, several test are performed to ensure that the equipment is operated as it should.

Documentation- how to install the software/ how to run the software/help

Insert your cd

Start menu then

Click on run

Select browse

Open cd and select setup

Select open or ok

(follow the instructions)

RUNNING THE PROGRAM

Start menu

Point on program

Locate program folder

Click on program icon

(program display)

Enter password and username

This chapter shows the system coding, testing, documenting and implementing a program to yield an obtainable, understandable and maintainable program. A failure in any of this will result in a poor program. It also deals on the system hardware, software development and implementation, system requirement, installation and system maintenance.

Pilot/parallel conversion

This involves documenting the program in use to make their structure and operation understandable and to serve as a basis for further program maintenance, which includes program specification and design diagram.

Formal operation documentation is produced during the testing stage and it consist of two forms namely ups, embedded as remark un-executable to the computer but included to assist the user to identify the operation of a program section and provide instruction on how to use them.

4.6 Test and evaluation (PROGRAM TESTING)

After the system has been designed, it is tested, at least to observe how it works. There are three types of testing that are carried out. They are;

- i. Unit testing
- ii. Integrated testing
- iii. System testing

Unit Testing

In unit testing, a program module that has been written and successfully compiled is tested instruction by instruction with a well preparation test data

Integrated Testing

In integrated testing, modules or programs are combined into groups and tested. The purpose is to find out how this program would interact with one another. These

programs should be modified to be able to co-exist

System Testing

This involves testing the entire system of modules or programs by utilizing a large volume of special testing data meant for the purpose. The expected result of the entire system should be predetermined, to see if the system would give exactly what the user deserves.

5.2 Conclusion

The system, online NYSC mobilization and posting system was developed to speed up processes, eradicate the problems facing Nigerian Tertiary Institution in payment sectors, improve on the security of data and information, maximize the available resources, reduces errors in inputs, improve user satisfaction with the systems and reduce cost.

5.3 Recommendation for further studies

Computer automation implies the use of computer to make a system or process move automatically and less dependent on human intervention for proper operations. The saying that the introduction of computer systems creates fear among staff is not true. This is because the computer industry is associated with excellent employment opportunities, computer automation will provide jobs for people to design, program, maintain, apply, operate and sell support systems. It is therefore recommended that these should be effective training for all personnel that will be dealing directly or indirectly with the computer system. The software developed would not only solve or reduce the problems of school mobilization in IMSU alone but rather to other Institutions with similar problems would also like to adopt it.

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