**OBSERVATION**

**Chapter 1**

1.1 is poorly referenced, no evidence of research

1.2 is poorly structured, needt to identify models/algorithms used for implementation on existing systems and state the problems encountered

1.3: Which model/algorithm are you going to develop?

**Chapter 2**

Your literature review references already outdated need to reconstruct it using recent publications to reflect standard way of project write-up

**Chapter 3: Methodology**

This chapter should be your own method used to describe the working principles of an identified model/algorithm, detail explanation of system framework construction, input and output design of the proposed system architecture, compare all these to the existing systems to actually point out your contribution.

I cannot figure out your contribution to existing systems in this work, kindly intensify more effort on this before proceeding to chapter four

**CHAPTER**i**ONE**

I**NTRODUCT**I**ON**

**1.1**i**BACKGROUND**i**OF**i**THE**i**STUDY**

Colleges and institutes are required to respond to the development of Information and Communication Technology (ICT), especially after the Internet has been became fast and everybody have opportunity to benefit from this facility. Students become more familiar to use this useful technology after the revolution of social media in last decade. Hence, the use of Electronic learning (E-learning) term is more adequate and applicable to be used in universities and institutes that provide great opportunities for learner and educator to acquire knowledge and improve skills (Dutta *et al*, 2011).

Electronic’learningiisitheiprocessiofilearningionline.iWhetheriyouiareiaihighischoolistudent,igraduateicollegeistudent,isomeoneiwhoiwantsitoidevelopitechnicaliskills,ioriairetireeiwhoiwantsitoilearnimore,ielectronicilearningioffersianiinfiniteiwayitoibroadeniyourihorizons,iallowingitheiteacheritoiuseilecturesioriassessmenti(Electronicitutorialsiandielectronicitutorials).iCommunicatei withiitsistudentsionitheiwebibyiexchangingianyiotheriinformation.iThisiapplicationiisidevelopedionitheiwebiandiconsistsiofithreeicolumnsinamelyiClient,iServer,Database,iServeriandiDatabase.Atitheisameitimeitheiclientilooksiatitheitireiresources,iwhichiareialsoiuseditoicommunicateiwithitheistudentilecture.iTheseithreeicolumnsicaniinteractiwithieachiotheritoicreateianionline,ilivei application. (Boezerooij, 2006).

Alliofitheseirangesicaniworkitogetheritoicreateianieffectiveidialogueibetweeniteacheriandistudent.TheseiareitheiinterestsiinitheifieldioficomputeritechnologyiiniNigeriaithroughitheiintroduction iofitheiInternet.iThisihasiincreaseditheiinterestiinielectronicilearningiiniNigeriaiandifacilitatedi communicationibetweenitheitwoidistantipartiesiinitheicountry.

Theie’learningisystemiconsistsiofitwoimainisections,iElectronicsiTutoringi(e’Learning)iandiElectroniciAssessmenti(e’Assessment).iTheitopiciofie’tutoringiisirelateditoitheiportioniofistudents iwhoicomeitoireceiveilectures.iReviewiquestionsiandiseeisummaryiandikeynoteiaddress.iAniE’ assessmentisectioniwhereistudentsitakeitests,iexercisesiandiquizzesitoifindioutihowimuchitheyi haveilearnedisinceitheilecturesibegan.

Applicationsiandiprocessesiincludeiweb’basedilearning,ivirtualiclassroom,iandicomputer’based ilearningithaticanibeiaccessediviaitheiInternetiCD’ROM (Gunasekaran *et al*, 2002

**1.2**iii**STATEMENT**i**OF**i**THE**i**PROBLEM**

It is very obvious that it is required of the students to be practically and theoretically sound so as to face the challenges to be encountered in the labor market. Disappointingly, most of the students including computer science students are not equipped as expected before lunching them into the labor market. Often time, the students are found to be the highest set of customers patronizing most of the side “computer training institute” and in turn, might not get the value of services they requested. This situation had been ascribed to many claims, in most occasions, had been made by both students and teachers on the pattern of teaching and learning respectively. For instance, the students claim the greater percentage of the teachers have poor teaching communication skills, and likewise the teachers blame the inadequate teaching and learning facilities and, or infrastructure as the reason for ineffective learning. Hence, the problem centers on effective teaching and learning processes for the impacting and the advancement of the students’ theoretical and practical knowledge.

Theimajoriproblemsifacedibyitheicurrentisystemiare:

* Computeriliteracy
* Strugglesitoiadaptitoinewisystem
* Inadequateilearningiresourcesi
* Outdatedihardwareiandisoftware
* Credibilityi

**1.3**i**A**I**M**i**AND**i**OBJECT**I**VES**i**OF**i**THE**i**STUDY**

Owing to the difﬁculties experienced during teaching and learning processes, this project is aimed at implementing e-learning through the development of a web site expected to be published over the internet, a CAL application package that will be installed in a computer, and on e-book in portal document format; this is to provide different remedy platforms for the shortcoming found in the existing system and learning procedures.

Focusing on the above, the objectives of the study are:

I Toireview the similar project works

II To develop a Biometry based e-learning student/lecturer portal.

III To implement the developed system.

IV To evaluate and compare the biometry based e-learning portal developed against the existing models,

.

**1.4**i**PURPOSE**i**OF**i**STUDY**

Theimainipurposeiofitheistudyiisitoicreateiaiwebiportalithat

* Teachesidigitaliliteracy
* Allowsistudentsinavigateithroughicontentsieasily
* Createidiscoverableicontents
* Enableiinformationishareiandistudentsiinteractions
* Onlineiandiofflineilearningiaccess
* Recognizeiachievements
* Givesivaluableiemployableiskillsiiniaidigitaliworldi
* Isiaccessibleioniallimodernidevices

Theie’ilearningiwebiportaliwillibeidevelopediusingitoolsisuchiasiPHP,iHTML,iApacheiandiMySQL

**1.5**i**S**I**GN**I**F**I**CANCE**i**OF**i**THE**i**STUDY**

Theiprojectiwasichosenibecauseiitiproffersisolutionsitoitheiproblemiaffectingiouricurrent system.iTheisignificancesiofitheistudyiareiasifollows:

* Virtualiclassroomsithaticanibeiincludediandiaccessedifromianywhere
* Wellieducated,iprofessionaliinstructorsijustilikeitraditionalieducation
* Diverseiprogramsiiniaivarietyiofidisciplines
* Accreditediprogramsitoicompleteicollegeidegrees
* Technicaliprogramsithatiprovideireal’timeitraining
* Freedomitoienhanceiskillsi–andiresumei–iwhileistilliworkingifull’time
* Financialiaidipossibilities
* Real’lifeiapplicationioficlassroomimaterials
* Greatericomfortiwithiinteractiveitechnologies
* Work/lifeibalance

**1.6**i**ORGAN**I**ZAT**I**ON**i**OF**i**THE**i**WORK**

Theiprojecticontainsifivei(5)ichaptersiwhichiwillibeidraftediinitheibelowiform:’

Chapter1’iIntroduction

Chapter2’iLiteratureireview

Chapter3’Researchimethodology

Chapter4’Implementationiandievaluation

Chapter5’Summaryiandiconclusion

**1.7**iii**L**I**M**I**TAT**I**ON**i**OF**i**THE**i**STUDY**

Theilimitationiofithisiresearchiworkiisiasifollows:

1. Theiwebibasedilearningisystemiisinotireal’itimeisoftwareithoughiifionlineiiticanionlyibeiupdatediatiaiparticularitime.
2. Thisielectronicisystemisoftwareiisionlyiavailableiforiaifewicoursesiforinowiwhichicanibeiexpandediasitimeigoesion
3. Itiisionlyilimiteditoiaiparticularienvironmenti

**1.8**i**DEF**I**N**I**T**I**ON**i**OF**i**TERMS**

**Web**’i(www’iWorldiWideiWeb)iAiweb’basediwebibrowserirefersitoiapplicationsioriservicesithatiliveioniaiserverithaticanibeiaccessedibyiaibrowseriandithereforeicanibeiaccessediviaitheiwebifromianywhereiinitheiworld.

**Project**i**Des**i**gn**:i’iTheistageiwhereiyouicreateiaiblueprintiaboutitheisoftwarei(i.e.,ihowiitilooks,itheistagesiofitheidesign),iyouibestidecideiwhichisoftwareitoiuseitoicreateiyouriprojectiandiwhatisoftwareitoiuseiforitheiobject.

**Database:**i’iTheicollectioniofiorganizediinformationiiniaistandardiarchitecture,inotiiniaimachine’readableiformatithatiisigenerallyiaccessibleithroughiainon’computerisystem.

**Appl**i**cat**i**on:**’iiAicomputeriprogramiorisetiofisoftwareithatitheiendiuseriperceivesiasiaisingleientityitooliforiaiwellidefinedipurpose.

**CHAPTER**i**TWO**

**L**I**TERATURE**i**REV**I**EW**

i**2.1**iiiI**NTRODUCT**I**ON**

Education is seen as a major tool for transformation for individual and the nation. Higher education must engender in the individual a deposition of personal autonomy, responsibility and relevant forms of life, thought and action. According to Isuku & Emunemu (2009), higher education exercise a direct influence on national productivity, which to a very large extent determines the country’s standard of living and help in stimulating local economy as an engine of growth.

Theineeditoiimplementianielectronicilearningisystemicannotibeiacceptediunlessiitirefersitoithei educationalistructureiofiouricountryianditheipositiveiandinegativeieffectsiitihasioniourieconomyiandihowitoiaddressitheinegativeieffectsiofithisiweb’basedilearningisystem.iThereiisie’tutoriandie’assessment.

**2.2**i**Tert**i**ary**i**educat**i**on**i**system**ii**n**i**N**i**ger**i**a**.

Tertiaryieducationiisistillireferreditoiasihigherieducation,iwhichiincludesitheinationalieducationisystemi(universities,ipolytechnicsiandicollegesi(technologyicolleges,iacademicicolleges,iinnovativeitra iningicolleges,icorrespondenceicolleges)iandiaffiliates).

Theiteachingiandiresearchiactivitiesiofihigherieducationiinstitutionsiplayianiimportantiroleiini theidevelopmentiofinationalidevelopment,iespeciallyiatitheihighestileveliofimanpower.iIniaddition,iuniversitiesiareitheibestiwayitoiraiseinationaliawarenessi(ProfessoriSamsoniOlunde,i2005).

Teacheritrainingicollegesiwereionceipartiofitheisecondaryieducationiprogramibutiareinowiparti ofitheitertiaryieducationisystem.iAcademicicolleges,iuniversitiesietc.iHere,itheiNigerianiCertific ateiiniEducationi(NCE)ioffersitheiBacheloriofiEducationidegree.i(NigerianiEmbassy’Chile,i2000)

i**2.3**i**Evolut**i**on**i**of**i**tert**i**ary**i**educat**i**on**ii**n**i**N**i**ger**i**a**

TheiintroductioniofiYabaiHighiCollegeiini1932imarkeditheibeginningiofitertiaryieducationiini Nigeria.iTheigoaliisitoifindithoseiwhoiexcludeicolonialimastersifromiwork.iDueitoiproblemsiiniaccessiandigovernance,itheicolonialigovernmentisetiupitheiElliottiCommissionitoicriticallyiexamineitheoriesipromotingitertiaryieducationianditheidevelopmentiofitertiaryiinstitutionsiinitheicolonies.iTheiElliottiCommission,icomprisingithreeiWestiAfricans,itravelediextensivelyiforithreeimonthsiandithenibroughtiinitwoireports.iTheyiareicalledimajority,iminorityireport.iMajorityireportsirecommendeditheiestablishmentiofiaiu niversityicollegeiiniNigeria,iGoldiCoast,iGhanaiandiSierraiLeone,iwithifiveiofitheifourteenimembersiofitheiCommissioniwritingiminorityireports,ithreeiofiwhichiwereicriticaliofitheiestablishmentiofitertiaryiinstitutions.iThereiareinotienoughistudentsiinitheseiinstitutions.iThisicreatediproblemsiinitheicoloniesiandisetiupiaisecondicommissionicalleditheiAsquithiCommissions.iTheiCommissionistatediiniitsireportithatitheinewicolonaliinstitutionsishouldinotibeipurelyitertiaryiistitutionsibutishouldiliaiseiwithifullitertiaryiinstitutionsitoiawardidegreesiandiwriteiexaminationsi(GidadoiTahiriAlbi,i2006).

TheiinventioniofiaitertiaryicollegeiiniElbadon,ialsoiknowniasiUBI,iini1940iwasitheifinaliprocessiofiYabaiTertiaryiCollege.iTheicoursesiofferedibyiIbadaniIIIiCollegeiareinarrowibecauseithei colonialigovernmentididinotiplanitoitrainihigh’levelimanpoweriforimanyiprofessions.iTheiASBIiCommissionireport,iwhichiwasisetiupitoiinvestigateiNigeria'sineedsiiniareasisuchiasipost’ schoolicertificationianditertiaryieducationioveritheinexti20iyears,ihasileditoitheiestablishmentiofiregionaliuniversitiesiinithreeipartsiofitheicountry.i.iIbadanireceivedihisifullitertiaryidegreeifromitheiUniversityiofiNigeriaiinitheieasti(1960),iAhmediBelloiUniversityiinitheinorth,iZariai(1962),itheiUniversityiofiIfei(nowiObafemiiAvaloiUniversity)iinitheiwesti(1961)iandiIII.iCollegei(1962).iTheiUniversityiofiLagos,iAcoca,iwasifoundediini1962iandioffersipart’timeiprogramsiinithei humanities,isocialisciences,imedicine,ilawiandiengineeringisinceiitsilocationiinitheicity.iPresentedibyitheiUniversityiofiBenini(1970)i.TheseisixiuniversitiesiareitheithirdigenerationiofitheifirstigenerationiiniNigeria.iThei1970ioilispillispreaditoiallisub’regionsiofiNigeria.

Asiofi2006,i67ieducationalicolleges,i40ipolytechnics,iareistateiandifederalicontrollediandiprivate.iIniaddition,i70iuniversitiesiiniNigeriaiareirunibyifederal,istateioriprivateiindividuals,iincludingifederal,istate,imilitaryiandiprivateiuniversities.iTheisuccessiofithisiexpansioniofitertiaryieducationiiniNigeriaicameiatithei1989iNationaliCurriculumiConference,iwhereicitizensidiscussedithei importanceiofieducationiinitheicountry.iAidocumenticameiintoiforceiini1977,iwhichidefinedi educationiasiaitooliofi‘paraiexcellence’iandiusediititoiachieveinationaliunity,igoalsiandiobjectives.iTheiresultiofitheisolutioniofieducationitoitheifiveimajorinationaligoalsiis:

* Aifree,idemocraticisociety
* Aijustiandiequalitarianisociety
* Aiunited,istrongiandiselfireliantination
* Aigreatiandidynamicieconomy
* Ailandifulliofibrightiopportunitiesiforiallicitizens

TheimainiobjectivesiofitertiaryieducationiiniNigeria,iisigiveniiniSectioni6iofitheiNationalipolicyioniEducationi(NPE,i2010),iwhichidefineditertiaryieducationi“asieducationigiveniafteriSecondaryiSchoolieducationiiniuniversities,icollegesiofieducation,ipolytechnics”.iIticontaineditheifollowingigoals:iiiiiiiiii

1. Toiadditoinationalidevelopmentithroughihigh’levelimanpoweritraining
2. Createiandiimpactiproperivaluesiforitheisurvivaliofitheiindividualsianditheisociety.
3. Toicreateitheiintellectualicapabilityiofiindividualsitoiunderstandiandiappreciateitheiri localiandiexternalienvironments.
4. Enablingiindividualsitoibeiindependentiandiusefulitoitheirisocietyibyiacquiringibothi physicaliandiintellectualiskills.
5. Promoteiandiencourageischolarshipiandicommunityiservices.
6. Createiandiupholdinationaliunityiandipromoteinationaliinternationaliunderstandingiandi interaction.

Theigoalsishowithatitertiaryiinstitutionishouldiembarkioniteachingiresearchiandidevelopmentiofiprogrammes,iseminarsiandialsoiinteractingiwithiotheriinstitutioniandishouldibeidedicateditoi theiricommunity.

However,iiniNigeriaitodayitheimajorigoalsiofithisipolicyiareiyetitoibeiimplementedidueitoithei interventioniofitheimilitaryiregimeiasiwelliasitheieconomicicrisesiandipolitics,imajorityiofitheseigoalsihaveinotibeeniachieved.i(TolaiOlajuwon,i2002)

**2.4**i**COMMON**i**METHOD**i**OF**i**LEARN**I**NG**i**ADOPTED**iI**N**i**N**I**GER**I**A**

Thereiareimanyimethodsiofiteaching,ibutitheioneipeculiariiniNigeriaiare:

**LECTURES:** Thisiisitheiformiofilearningithatiincludesipresentationiofifactsiinidirectiandilogicalimanner,iitiisiadoptediwhenitheiclassiinvolvediisilargeiandialsoiitiisiopenitoidiscussion.iTheseilectures,iin orderitoipassiknowledgeineedicleariintroductioniandisummary,igoodiexamplesiandioficoursei enoughitimeitoiexplainianditeachicourseieffectively.iThisimethodihasishortcomingsibecausei mostitimes,ilearningiisidifficultitoigauge,icommunicationiisialwaysioneiwayianditheiclassiisi alwaysitooiquite.i(Prof.iTolaiOlujuwon,i2002)

**LECTURES**i**W**I**TH**i**D**I**SCUSS**I**ONS:**i

Thisiisianotheriformiofilearning,iitiisisimilaritoitheiaboveibutidifferentibecauseithereiisiaibitiofi interactioniafteritheilecture.iTheiaudienceigetsitheichanceitoiclarifyimisconceptions,iaski questionsiandiaddiaifewitoiwhatihasibeenilearnt.iTheionlyidisadvantageihereiisithatitheitimei limitimayiaffectidiscussion.i(Prof.iTolaiOlujuwon,i2002)

**CLASS**i**D**I**SCUSS**I**ON:**i

Here,iideasiandiexperienceicomeifromitheigroup,Everyoneigetsitoiparticipateiinianiactiveiprocess,iSinceiitiwillidefended.iTheiessenceiofithisimethodiisiforfeitediifithereiareimoreithani20peopleiinitheigroupiandialsoithereiisiaigroupileaderisoiatitheilongirun,inotieveryoneiwilliparticipate.iTheimostiimportantilimitationiisithatitheigroupimightigoioffitrackiifitopiciisinotiwelliunderstoodisinceithereiisinoisupervisionibyilecturer.

**SMALL**i**GROUP**i**D**I**SCUSS**I**ON:**i

ItiisisimilaritoiClassidiscussion.Butithereiareislightidifferences.iItiallowsiparticipationiofieveryoneiandipeopleioftenimoreicomfortableiinismalligroupi(PatiMcCarthy,i1992)).

**2.5**i**D**I**STANCE**i**EDUCAT**I**ON**iI**N**i**N**I**GER**I**A**

DistanceiEducationiisiaitransformediformiofiwhatiwasibetteriknowniasi"correspondencei education"idecadesiago.iCorrespondenceicoursesiconsistediofitheiarrangementibetweeniteachingiinstitutionsioutsideiclassrooms,iandistudentsiinitheirihomes,ibasediprimarilyionitheiuseiofwrittenimaterials.

Theireasoniwhyiitiisiaitransformediformiisibecauseidistanceilearningihasiassumediaileveliof sophisticationithatinowiincludesitheiapplicationioficomputers,ivideoiandiaudioiinstruments.iIfiwelliapplied,iiticanimatchitheibestiknowniuniversityiteachingiandilearningiprogrammesiinitheikindiofiresultsiobtained.

The e-learning strategies when employed can enhance the learning outcome and can allow the students to access the university from anywhere in Nigeria (John, Pfalzer, FAPTA, Glickman, Masaaki, & Sabus, 2012). The E-learning will raise standards of education, Improve quality, remove learning barriers, inculcating employment skills, and along side widening participation to achieve the educational goals (Brophy, 2013).

Youngiboysiandigirls,iincludingiparentsiandiworkingiclassiadults,iwhoicannotiobtainiformaliuniversityieducationiforivariousireasons,iparticularlyidueitoitimeiandicost,ioriaicombinationiofibothifactors,iareiprovideditheiconvenientialternativeiofidistanceieducation.

NotableiNigeriansilikeiNnamdiiAzikiwei(popularlyiknowniasiZik),iEyoiIta,iH.OiDavis,iE.O.iAjayi,iAlvaniIkokwu,iJ.S.iOgunlesi,iS.A.iBanjoiandiSimeoniAdeboitoinameibutiaifew,iwereiproductsiofiBritishiCorrespondenceiColleges.

DistanceiEducationiseemsitoihaveibenefitedifromiseveraliexperiments,iandimistakesimadeiwhileiinitiatingitheiprogrammeiinithisicountry.iItsipioneers,idrawingifromitheiexperiencesiofiopeni

universitiesiandicorrespondenceiteachingielsewhere,isettlediforitheinamei“DISTANCEiEDUCATION”itoiaccommodateiallitheiactivitiesiofitheiAfricaniAssociationiforiCorrespondenceiEducationiandiOpeniUniversities.iTheigreatestisetbackiofiDistanceiEducationiprogrammesiisilackiofipubliciawarenessiofiitsiexistence,iitsimodusioperandi,iandihowiaiprospectiveidistanceilearnericanibeipartiofiitsiprogrammes.iTheiNigerianiDistanceiEducationiprojectiisidesigneditoigetiworkersiiniparticulariwho,iforigoodireasons,icannotigetifullitimeiuniversityieducation,itoideployionlyisomeiofitheiriavailableitimeiandiresourcesitoiobtainingiaiuniversityidegreeifromitheicomfortiofitheiri homes.iTheiprogrammeiinvolvesitheiarticulation,iproduction,ianditransmissioniofilectureicontentitoitheidistantipupil.iApartifromiusingiaudioicassettes,itutorialiservicesiandicounselingiasi instrumentsioficommunication,iailotiofiemphasisiisiplacedioniworkidoneiatiStudyiCenters.iTheseiCentersiwhichinumberiabouti30iiniNigeriaiandiareilocatediinistrategicallyiconvenientipartsiofi Nigeriaiareiwhereicourseigiversiandireceiversimeetionceiaiweekitoiinteract, thisiwayitheihandicapiofiaidisconnectionibetweenitheiknowledgeiprovideriandireceiveriisiremoved.iThereiareihoweverisomeiworrisomeilimitationiiniwhatiisiadmittedlyianiambitiousischeme.i

Governmentifundingiisigrosslyiinadequate,iPubliciawarenessiisiscanty,iInevitableioccasionalipoliticaliinterferences,iborneioutiofiwrongiinterpretationsiofitheiprogrammesiareirampant.iHumaniandiadministrativeierrorsiwhichiariseifromitheirecruitment,itrainingiandiretrainingiofiteachersioftenidiminishienthusiasmiandiultimatelyidepreciateitheimuchiexpectedidividendiinithisiworthwhileiundertaking.iNigeriansiwillilikeitoibeireassuredithatithisispecialistilearningisystemiwillinotiloweritheivalueiofitheiqualificationsitheyiobtainifromitheisystem. Theinegativeithinkingithatiattaineditheiintroductioniofitheistill’borniNationaliOpeniUniversityitwoidecadesiagoiinitheiNorthihasinotiquiteibeenished.

DistanceiEducationihasicomeitoistayidespiteiitsinumerousiminorisnagsiandihiccups.iAnotherisetbackiisithatitheigovernmentimustibeiableitoimakeiupitheirimindioniwhatinameitheyishouldicallitheischeme:iDistance,ioriOpeniUniversity.iInitheiUnitediKingdom,iitiisicalleditheiUnitediKingdomiOpeniUniversityi(UKOU).iIniCanada,iitiisiknowniasiCommonwealthiLearningi(COL).iIniNigeria,ianyinameigoes.iTheiindecisivenessiinitheichoiceiofinameidoesinotidoitheischemeianyigood.iProspectiveipupilsishouldiknowiwhomitheyiareidealingiwith.

TheiadministrationiwillineeditoidelegateimoreiauthorityitoistateiStudyiCentersiiniorderitoiobtainiquickianswersitoilecturers’iandistudents’ienquiries.iAsithingsistand,ithereiisiovericentralizationiofiauthority.iThaticreatesiitsiowniavoidableiproblems.iTheiStudyiCentreishouldibeimoreiadequatelyihousediandiequippediinipermanentisites.iEverythingishouldibeidoneitoifacilitateiconsultationsiandiminimizeilocomotion.iThisiwillicutidownionitravelingineeds.i(Isnaini,i2006)

* 1. **EVOLUT**I**ON**i**OF**i**E-**i**LEARN**I**NG**iI**N**i**THE**i**WORLD**

Ini1971,itheifirstiexperimentsiwithisatellite’basedideliveryiofidistanceieducationiwereiconductediiniCanadaiandiUSA.iInithei1980s,itheitelephoneiwasiintegratediintoitheiprocess,iparticularlyiiniIowa,iBritishiColumbiaiandiWesterniAustralia.iInil995,itheitenilargestidistanceieducationiinstitutionsiinitheiworldialoneiservedioveri3,417,000istudents.iInimajoriwesterninationsinearlyi15ipercentiofihigherieducationistudentsicurrentlyistudyiatiaidistance.iInitheiUnitediStates,imoreithaniaithousandiuniversitiesihaveiofferedicoursesioveritheiwebitillinow.i(AlbertiA.iAngehin,i2005)

IniChina,itheiCentraliRadioiandiTelevisioniUniversityi(CRTVU)iwasiestablishediiniBeijingiini1979,iini2001,iBeijingiUniversityiofiLanguageiandiCultureiopenedianion­lineiChineseilanguageidistanceieducationiprogram.iAidistanceieducationilinkageiwasiestablishedibetweeniChina’siRenminiUniversityiandiJapan’siOsakaiEducationiInstituteiini2002.iTheiChineseigovernmentiauthorizedi45iuniversitiesitoiofferiweb’basedidegreeiandidiplomaiprogramsithroughitheiModemiDistanceiEducationiProjectiini2002.i(WeiminiGeiandiYuefeng,i2005).

**2.7**iii**ELECTRON**I**C**i**LEARN**I**NG**i**(E**’**LEARN**I**NG)**

Theieffectivenessiofielectronicilearningipopularlyicalledie’learningidependsioniestablishingiaikindiofitwo’wayicommunicationibetweeniteachersiandilearners,iandiamongilearnersithemselves.

Onlineitechnologiesicanialsoibeiuseditoifosteriinteractiveiandicollaborativeiengagement.iThisicanibeieitherisynchronousioriasynchronous:ilearnersiandiinstructorsimayieitherihaveiregular,ischeduledisessionsiwhetheritheyialli'meet'isimultaneouslyionline,iori(moreicommonly)iuseielectroniciforumsitoiexchangeiideasiinitheiriownitime.

Theimostifamiliariformiofisynchronousielectronicicommunicationiisirealitimeitwoiwayitext’basedionlineichat,iwhichiisiwidelyiusediinie’learning.iMoreisophisticatediformsiofisynchronousiinstructioniincludeivirtualiclassrooms,iwhichiuseiinformationiandicommunicationitechnologiesitoimimiciaitraditionaliclassroomienvironment.iThisimayiinvolveivideo’conferencingioritheiuseiofisharedielectroniciwhiteboards,iwhichiallowilearningimaterialsitoibeicreatediandimodifiediinirealitime,ieitheribyitheiinstructorioritheilearners.

Asynchronousiinstructioniallowsiparticipantsitoicontrolitheiriownitimetablesiandifitilearningiarounditheiriothericommitments.iThisiisiaimajoribonus,iespeciallyiforiadultilearnersiwhoiliveicomplicatedilives.iManyiofitheitechnologiesiusediiniasynchronousie’learningialsoipermititwoiwayicommunicationibetweenilearnersiandiinstructors,iorimulti’directional,icollaborativeicommunicationiamongilearnersithemselves.iTheseiareisomeiofitheicommunicationitechnologiesimosticommonlyiusediiniasynchronousie’learning:

* Emailiisitheimosticommoniformiofielectroniciinformationiexchange.
* Collaborativeilearningiforumsipromoteilearneriinteractionithroughimessageiboards,iwhereistudentsicanipostiquestionsiandianswers;itextichatioriforums,iwhereilearnersicanicommunicateioutsideitheimainiclassroom;iandithreadedidiscussions,iwhereifacilitatorsiandistudentsicanidiscussiaigivenitopiciandireviewieachiother'siresponses.
* E’boardsiallowilearnersiandiinstructorsitoicreateiimages,itextiandiinformationiandipresentithemitoiotheriparticipants.
* Applicationisharingiallowsiinstructorsiandilearnersitoiwork  
  collaborativelyionitheisameilearningimaterials,ieitherisimultaneouslyioriinisequence.iParticipantsicaniseeiwhatiisihappeningiatiallitimes.
* Simulationsiorivirtualilaboratoriesipermitilearnersitoiworkiiniteamsitoiconstructiprojectsiandicompleteithemiatitheiripreferredipace.
* Library/learningisessionicacheiaccessiprovidesiaccessitoiarchiveditext,ipresentations,ivideo,iaudio,iandidataifiles.iThisiisiespeciallyiusefuliforirevisionioriforireviewingisynchronousilearningisessionsiaistudentimayihaveimissed.
* Real’timeitestsiandievaluationicanibeitriggerediatiagreeditimesioricompletediatitheilearner’siownispace.
* Videoiandiaudioistreamingicanibeiuseditoidisseminateiinformationitoilearners,iandicanialsoienableilearnersitoiseeiandispeakiwithitheifacilitatoriviaitheiInternetiratherithanibyitelephone.

**2.8 E**’**LEARN**I**NG**i**TECHNOLOG**I**ES**

Atipresent,ie’learningitechnologiesiencompassithreeimainiareasiofiactivity:

* **Content**i**creat**i**on**i**and**i**management:**iTheisourcing,icreation,istorageiandimanagementiofie’learningicontenti—iifunctionsitypicallyiaddressedibyiailearningicontentimanagementisystemi(LCMS);

**LEARN**I**NG**i**MANAGEMENT:**iTheicaptureiandiapplicationiofiinformationiaboutilearningiresources,iexistingiskillsiandilearningiactivitiesitoimeasureiandimanageilearningioutcomesiatitheiorganizationalileveli—ifunctionsitypicallyiaddressedibyiailearningimanagementisystemi(LMS);iand

**LEARN**I**NG**i**ACT**I**V**I**TY:**iTheideliveryiofie’learningicontent,ifacilitatingiinteractioniandilearningiassessment—ifunctionsitypicallyiperformedibyiinstructorsioritrainers.

**2.9**iii**OPEN**i**D**I**STANCE**i**EDUCAT**I**ON**

DistanceieducationihasialwaysibeenipartiofitheiNigerianieducationipolicyioveritheiyears.iForiinstanceiNationaliTeachers'iInstituteihasiinimoreithanithreeidecadesiprovidediprimaryiteachersidieiopportunityiofiupdatingithemselves.iDistanceieducationiwasihoweveritoitakeirootiuntilialmostitwentyiyearsiagoiwithitheisettingiupicivilianiadministration.iTheisettingiupialsoisawihugeifinancialiinvestmentiintoitheisector.iTheifocusiwasitoimakeihigherieducationialsoiknowniasiuniversityieducationiavailableitoitheiworkingiclassitoienableithemistudyiandiearnihonorsioridegreesiatitheirispareitimeithusiimprovingithem.iHoweveritheiintroductioniofithisiopenidistanceiuniversityihasiit’siownihistory.i(JackiVaughan,i2004).

TheisecondiRepubliciwitnesseditheiintroductioniofianiopeniuniversityiafteriaiprolongedidebateiinitheiNationaliAssemblyifollowingitheiNationaliAssemblyiActiofi1982.iThisiwasishortilivediasitheisucceedingimilitaryigovernmentisuspendeditheiOpeniUniversityiini1983iandiconfinediit.iThisiwasihoweverireincarnatediduringitheiciviliruleiofi1999iasitheicentreiforidistanceilearningiofitheiUniversityiofiAbuja.iAndifromithisiotheriopenidistanceitertiaryieducationiprogrammesiwereidiscoverediwhichiincludeitheiDistanceiLearningiInstitutei(DLI)iofitheiUniversityiofiLagos,iCentreiforiExternaliStudiesi(CES)iofitheiUniversityiofiIbadan,iUniversityiofitheiAiriofiFederaliPolytechnic,iOko,iiniadditionitoitheidedicatedidistanceiNationaliTeachers’iInstitutei(NTI)iKadunaiwhichihasibeeniresponsibleiforimassiproductioniofiteachersisincei1976.iAnotheridistanceieducationioutfitiatitheitertiaryileveliofieducationiisitheiVirtuali(Digital)iLibraryiproject.iThisiisitheiwideningiofiaccessiforilibraryiusersiwithiaiviewiofiimprovingiteachingiandiresearchiiniouriexistingiUniversities.iAimajoricomponentiofithisiisitheicreationiofiWebisitesiwhereialliacademicipublicationsiwillibeiaccessibleitoialliwhoiareiinterested.

Theiopeniandidistanceieducationimodeiisinotilimiteditoihigherieducationisystemialoneiasiitihasialsoibeeniadoptediinireachingitheiunderserved,ithisiisibeingisupportediwithitheidistance’learningiprogrammeiforitheinomadsithroughitheiNomadiciEducationiCommission,ianditheiupgradingianditrainingiofiprimaryischooliteachersiusingitheidistanceiapproachifacilitatedithroughitheiNationaliTeachers'iInstitute,ialsoitheidevelopmentiofisatelliteicampusesiwhichiwereiseeniasidistanceieducationiproviders.i[RashidiAderinoyei(2002),iUNESCOi(2001)].

**2.10 PREM**I**SES**i**FOR**i**OPEN**’**D**I**STANCE**i**EDUCAT**I**ON**iI**N**i**N**I**GER**I**A**

Theiincreaseidemandiforiuniversityieducation,ibyijobiseekersileaditoitheiadoptioniofitheidistancei’openilearningiapproachibyitheiE’9iCountriesicumulatediinitheiin’iabilityiofiexistingiconventionalieducationaliinstitutionsitoiaccommodateimoreistudents,idueitoilackiofifacilitiesiandicapableihandsithisileditoitheinewiDemocraticigovernmentitoiadoptitheialternativeioptioniwhichiisitheidistanceiOpeniapproachitoibeiableitoiprovideieducationitoitheicitizenry.iPresentlyiiniNigeriaiweihavei36istatesiincludingitheiFederaliCapitaliAuthority.iItsicurrentitotalipopulationiisiabouti120imillion.iHeritertiaryieducationihistoryiisiamazingiasitheicountryihasimoreithani50iFederaliandiStateiUniversitiesiasiwelliasiprivateiuniversitiesiapartifromitheiPolytechnicsianditheiCollegesiofieducationibutistillitheseitertiaryiinstitutionsiareinotienoughitoicateritoidemandiofipeopleiseekingiadmissioniintoithisiinstitutionsithisicanibeiviewedifromitheirecenticonductiofiadmissionitoiuniversityibyitheibodyiwhichiisiknowniasiJointiAdmissioniandiMatriculationiBoard(JAMB).iInitheiyeari2001ientranceiexaminationitoiuniversitiesiandipolytechnicsipresentiaiveryigloomingifutureiforiuniversityieducationiiniNigeria.iTheitotalinumberioficandidatesithatiappliediforiuniversityiadmissioniwasimoreithani480,000ianditheiavailableispaceiinitheiuniversitiesiwasilessi1hani70,000ithatipasseditheiexamination,iwhileithoseiwhoiapplieditoipolytechnicsiandicollegesiofieducationiwereimoreithani198,850iwhenitheispaceiavailableicouldinotiallowiforioneithirdiofitheitotaliapplicants.iAtitheiprofessionalilevel,ithisisituationihasimadeiitiimpossibleitoiofferiadmissionitoiprofessionaliworkersiwithigovernmentioritheicorporateibodyiwhoitheyiareiworkingiforigrantingithemileavesiwithipayioriwithoutipayithusileadingitoijobisecurity.iTheipoorieconomicisituationiofitheicountryihadisinceideniediworkersithisiopportunityiandisoitheyiresulteditoialliillegaliandiun’orthodoximeansiofiacquiringihigherieducation.iSuchiun’orthodoxiandiillegalimeansiwasitheirecentlyiclosedidowniSatellitesicampusesiwhichiNigeriansihadiacceptediandiseeniasidistanceieducation.iSuchicampusesiwereiestablishedibyiconventionaliinstitutionsiexploitingipeopleiseekingihigherieducationiespeciallyiworkersiasiwelliasithoseideniediadmissionibyitheiJAMBibecauseiofiinadequaciesiofitheiconventionaliinstitutionsiwhichirangesifromilackiofispaceitoishortageiofipersonneliandiotheriinfrastructureithatiareinotiiniplace.

Anotherigroundithatimadeiitiimperativeiforiopeni’distanceilearningiisithatitheiNationaliTeachers'I Institutei(NTI)iestablishediini1976ihadiupgradedivirtuallyialliunqualifiedigradeitwoiteachersiandihasisinceibeeniupgradingithemitoiNationaliCertificateiiniEducationiwhichiisitheiminimumiqualificationiforiNigerianiteachers.iTheidesireiofitheseicategoriesiofiteachersitoiobtainiUniversityidegreeicouldieasilyibeiachievedibyitheiestablishmentiofiaidedicatediOpeniUniversityiasitheiconventionaliuniversitiesilackeditheicapability.iThoughithereiareifewiofitheseiconventionaliuniversitiesithatiareiofferingidistanceidegreeiprogrammeibutitheirispaceitooiisiveryilimited.iInitheiyeari2000itheiopenidistanceieducationiprogrammesiatiallilevelsireceivediaiboostibyitheinewidemocraticiNigerianigovernmentithisiwasidoneithroughiaigradualiandiincreasedidevelopmentiofibothistructureiandicapacityibuildingiofithisiprogrammesiandithisieffortsiwereisupportedibyiinternationaliagenciesilikeitheicommoniwealthilearningi(COL).i(RashidiAderinoye,i2002),i(UNESCO,i2001)).

**2.11**iii**OBJECT**I**VES**i**OF**i**OPEN**i**D**I**STANCE**i**LEARN**I**NG**

1. CreatingieducationiopportunityiforimillionsiofiilliterateiNigerians.i
2. Toiprovideialternativeiaccessiforithoseiwhoicannotibeiaccommodatediintoitertiaryiinstitutions.i
3. Provideiprofessionalidevelopmentiandiupgradingiopportunitiesithusinotiremovingilearnersifromitheiworkplace.
4. Toiprovideiaidualilearningiprocessithatiwillitakeicareiofitheieducationalineedsiofithoseithatiareiqualifiediforiuniversityieducationibuticouldinotibeiaccommodatediforilackiofispaceiinitheiexistingitertiaryiinstitutions.i
5. Providingiaimeansiofiupgradingiouriteachers.

**2.12 PROBLEMS**i**OF**i**OPEN**i**D**I**STANCE**i**LEARN**I**NG**

Theimajoriproblemsiareiasifollows

1. Thisisourceiofieducationishouldibeimadeiatiaffordableiprices.
2. Alsoiconstitutingiaimajoriproblemiisitheiestablishmentiofiappropriateimechanismsiforicoursesiaccreditation,iqualityiassurance,imonitoringiandievaluation.
3. Lackiofiequityiandiaccessibilityiofieducationitoiallicitizens.

**2.13** i**E**’**LEARN**I**NG**i**PEDAGOGY**

E’Learningiisialsoiknowniasionlineieducation.iItiisitheiprocessiofilearningiwhereicomputersiareiusediatieachipossibleistepiofitheiprocess:ienrollment,iinstructionidesign,icontentidelivery,ievaluation,iassessmentiandisupport.iThisimeansithatistudentsianditeachersidoinotihaveitoisitiinitheiclassroomibutiinsteaditheyilearnifromianywhereiinitheiworldiandianyitime.i(BilliCope,i2005).i

iTheidifferentiformsiofilearningienvironmenticanibeicategorizediintoifiveilevels.iTheyiinclude:

**2.13.1 FACE**i**TO**i**FACE**

Theitraditionaliformiofieducationiisitheifirstilevel,ihere,iteachersiandistudentsihaveitoibeiphysicallyipresentiiniaiclassroomisetting.iFaceitoifaceiinteractioniisitheimostiprevalentimeansioficommunicationibetweeniteachersiandistudents.i(BilliCope,i2005).

**2.13.2 D**I**STANCE**i**LEARN**I**NG**

Theisecondileveliisibyidistanceieducation.iWithitheidevelopmentioficommunicationianditransportationitechnologiesiinitheiindustrialiage,iteachersiandistudentsiareiseparatedibyispaceianditime.iCommunicationibetweeniteachersiandistudentsiisiachievedibyiusingitraditionalimail,iphone,iradioianditelevision.i(BilliCope,i2005).

**2.13.3**i**E**’**LEARN**I**NG**

ElectronicirevolutionianditheiinventioniofiInternetileditoie’Learning,iwhichiisitheithirdilevel.iiDifferentitypesiofimediailikeitext,iaudio,ivideo,ihypertext,isimulationsianditwo’wayicommunicationihaveibeeniusedicommonlyiinieducation.iWeb’basedilearningiisioneiofitheimostiprevalentitypesiofilearningiasiairesultiofitheiwidespreadiuseiofiInternetiglobally.i(BilliCope,i2005).

**2.13.4** i**M**’**LEARN**I**NG**

Theimobileilearningi(m’Learning)iconstitutesitheifourthileveliandiitiinvolvesitheiuseiofimobileicommunicationitoolsilikeimobileiphone,ipocketiPC,ietc.iItiisiailearningiparadigmithatitakesiplaceianytime,ianywhereiwithitheihelpiofiaimobileidevice.i(BilliCope,i2005).

**2.13.5** i**VO**I**CE**i**LEARN**I**NG**i**(V**’**LEARN**I**NG)**

V’LearningiisitheififthileveliandiitientailsitheiuseiofimobileiphonesiorilandlineiphoneitoiaccessilearningicontentsiinitheiInternetioriIntranetianytimeiandianywhereibyidialingiaitelephoneinumber.iAitypicalitelephoneiwebie’Educationiapplicationiprovidesilearningimaterialsithaticanibeiaccessediviaitheiwebianditelephone.iSomeistudentsihaveiusedispeechirecognitionisystemsisuccessfullyiforitheiristudiesiandiforiexams,ianditheiuseiofithisitechnologyihasihelpedithemitoiovercomeitheiridifficultiesiandiproceeditoihigherieducation.i

Voice’basedilearningiisiaitypeiofi“assistiveitechnology”iusedibyitheiphysicallyichallenged.iTheiWorldiWideiWebiConsortiumi(W3C)idefinesiassistiveitechnologyiasisoftwareiorihardwareithatihasibeenispecificallyidesigneditoiassistipeopleiwithidisabilitiesiinicarryingioutitheiridailyiactivities.iTheseitechnologiesiaiditheilearningiprocessiforilearnersiwithidisabilities.iPeopleiwhoiareipartiallyisightedihaveidifficultyiaccessingie’Learningisystemsidueitoismalliprintioritheiinabilityitoiseeitheipositioniofitextiblocksiclearlyionitheiscreen.iForitheivisuallyiimpaired,ie’Learningisystemsiareiofteniinaccessibleidueitoitheinatureiofitheiprocessirequiringisightediinformation.i(BilliCope,i2005).

**2.14**i**METHODS**i**OF**i**DEL**I**VER**I**NG**i**E**’**LEARN**I**NG**

Whereiandihowiyouiplanitoideliveriyourie’learningiisiaicriticalifirstiquestion,iwhichiwilliquicklyinarrowitheichoicesiforiauthoringisoftware.iToianswerithisiquestioniyouineeditoiidentifyitheifollowingifactors:

•iDeliveryimethod—Internet,iintranet,ioriCDidelivery

•iBandwidthiconstraints

•iWhichibrowsersiandioperatingisystemsiyouricourseiwillisupport

•iRequirediplug’insioriplayers

WilliyouideliveriyouricourseioveritheiInternetitoiaibroadirangeiofiusers?iOriwilliyouidelivericoursewareitoianiinternaliaudienceioveriaicorporateiintranet?iPerhapsiyouineeditoideliverioniCDiforiemployeesiwhoiwillitrainiatihomeioriwhileitraveling.iManyiprojectsirequireideliveryitoimoreithanioneiofitheseiplatforms.iWhereiyouideliveriyouritrainingiaffectsiwhichisoftwareioptionsiareiavailableitoiyou.iInternet’iandiintranet’basedideliveryioficoursewareidifferiinitwoiimportantiways:ifirst,iinitheiamountiofibandwidthithatiisiavailable,iandisecond,iinitheilevelioficontroliyouihaveioveritheiusers’isystemiconfigurations.iWhenidevelopingiforitheiInternet,iyouineeditoiaccommodateiaibroadiandidiverseiuseriaudience,imanyiofiwhomihaveilow’bandwidthidial’upiconnections.iFurthermore,iyouiwon’tiknowihowitheseiusers’isystemsiareiconfigured,inoricaniyouicontrolithis.i

InidevelopingicontentiforitheiInternetiorianiintranet,iyouiwillineeditoiconsiderimanyiconfigurationidetails.iForiexample,iwhatioperatingisystemsiwilliyouisupport?iWhatibrowsersiandiversionsiareirequired?iDoiyourilearnersihaveitheirequirediplug’insiinstalled?iTheianswersitoitheseiquestionsioftenidifferiifiyouiareidesigningiforitheiInternetiversusianiintranet.iNoimatterihowiyouiplanitoideployiyourie’learning,ievaluatingiandispecifyingiyouricourseideliveryienvironmentibeforeiyouichooseiyouriauthoringitoolienablesiyouitoimakeiwiseidecisionsiaboutiwhichisoftwareiwillideliveriyouricontentimostisuccessfully.i

**DES**I**GN**I**NG**i**FOR**i**THE**iI**NTERNET**

WheniyouidesignicoursewareiforitheiInternet,iyouineeditoiselectitechnologiesithatiperformiwellioverilow’bandwidthiconnections.iInifact,iitiisiaiwiseiideaitoidesigniyouricoursewareitoiperformiacceptablyioveritheilowesticonnectionispeediyouiplanitoisupport.iForiexample,iyouimayineeditoideliveritrainingitoifieldipersonneliwhoihavei33iKbpsimodems.iForitheseiusers,iitiisiimportantitoidelivericontentithatiisieasyitoiaccessiandiview,iwhichimeansiavoidingiunnecessaryidownloadsiandicomplicatedisetupiprocedures.iToidoithis,iyouishouldirelyionibroadlyiavailableitechnologies,isuchiasiHTML,iMacromediaiFlash,iandiXML.iMacromediaiDreamweaveriandiDreamweaveriUltraDeviiiiproduceiHTML,itheimosticommonlyiusedilanguageiofitheiWeb.iTheiadvantageiofiusingiHTMLiisithatiiticanibeiviewediinianyibrowser.iTheidisadvantageiisithatisimplyicreatingicontentiiniHTMLidoesinotiguaranteeithatiyouricourseiwilliperformiwellioveritheiInternet.iPerformanceidependsiuponitheidesigniofiyouripage,ihowimanyilayersiyouiuse,ianditheinumberiandisizeiofiembeddedigraphics.iHTMLialoneialsoihasisignificantilimitationsiwheniiticomesitoiinteractivityiandirich’mediaisupport.iForiexample,imanyiinteractionsisuchiasidraggingiandidroppingiareipossibleionlyiinitheineweribrowsers,iwhichisupportilayers.iTheibestiwayitoiovercomeitheseilimitationsiisito

CombineiHTMLipagesiwithirich’mediaielementsicreatediwithiproductsilikeiMacromediaiFlashiandiDirector.

FlashiovercomesimanyiofitheilimitationsiofiHTMLiwhileistilliprovidingideliveryithatiisi“Web’native.”iFlashiproducesiaivector’basedifileithatiisiextremelyicompactiandiperformsiwellioverilowibandwidth.iTheiMacromediaiFlashiPlayeriisinowipreinstallediinimajorioperatingisystemsiandibrowsers,iallowingioveri96%iofiallivisitorsionitheiWebitoiviewiFlashicontent.iMacromediaiFlashiisitheimostiubiquitousiplayerionitheiWeb,iwithioveri350imillioniplayersiinstalleditoidate.iWheniaidownloadiisirequired,itheiMacromediaiFlashiPlayeriisionlyiabouti200Kiandicanibeidownloadediinilessithaniaiminuteioveriai56’Kbpsiconnection.iForithoseiwhoidon’tihaveitheiplayer,iitiisieasilyiinstalledifromitheiMacromediaiWebisiteioriredistributedifromiyouriintranet.iTheiShockwaveiplayeriisi3.4iMBi(megabytes)iandirequiresiapproximatelyi8iminutesitoidownloadioveriai56’Kbpsimodem.iTheiShockwaveifileiformatiisinotivector’basedilikeithatiofiMacromediaiFlash,ibutiitidoesiprovideistreaming,iwhichiallowsirichimediaicontentitoiperformiwellioveritheiWeb.iDirectoricaniembediandicontrolinativeiFlashifiles.iTheistrengthiofiShockwaveiisithatiitiprovidesitheirichest,imostiinteractiveiexperienceipossibleionitheiWeb.iAuthoriwareiisitheileasticommonichoiceiforideployingicoursesiprimarilyioveritheiInternet,ibecauseitheiAuthorwareiWebiPlayeriisinotipreinstalledionipersonalicomputersioriinibrowsers.iSinceitheiAuthorwareiWebiPlayeriisi4.4iMB,idownloadingiiticanibeitime’consumingiforiusersiwithilow’speediconnections.iAuthorwareilearningiapplicationsiareitypicallyideployeditoiorganizationiintranets,iwhereibandwidthiisinotianiissueiandiwhereibrowsersiareisometimesipreconfigured.iMacromediaiprovidesiaione’buttoniinstallationisolutioniforitheiAuthorwareiWebiPlayericallediAutoInstall,iandiorganizationsicanihostiandideployitheiplayerifromitheiriowniintranet.i(McEwen,iAdrian,i2013).

**DES**I**GN**I**NG**i**FOR**i**AN**iI**NTRANET**

Wheniyouidesignicoursesiforianiintranet,iyouitypicallyihaveiaismalleriaudienceiandiaibetter’knownideliveryienvironment.iWithianiintranet,ilearnersiusuallyiconnectitoitheinetworkiatimuchifasterispeedsithanitheyiwouldioveritheiInternet,iandiyouiwilliknowimuchimoreiaboutitheisystemiconfigurationsiyouineeditoisupport.iThisiletsidesignersitakeiadvantageiofiaibroaderirangeiofitechnologyiandiemployimoreirich’mediaicontent.iIfiyouideployiyouricourseionianiintranet,iyouicanichooseianyiMacromediaiauthoringiproductisubjectitoiyouriorganization’sipoliciesiregardingiplayers.iAsiwithicoursewareiyouideliverioveritheiInternet,iyouishouldiidentifyitheilowestibandwidthiyouineeditoisupportiandidesigniforithatibandwidth.iAlso,ifindioutiifiyouriorganizationihasipoliciesioriprocessesiiniplaceiregardingiinstallingiandisupportingiplayers.iForiexample,isomeiorganizationsiprohibitiinstallingiplayersionianiintranetiforisecurityireasons.iOthersihaveiaiformaliprocessiforiapprovingitheiuseiofiplayersiandimayievenipre’configureiorimanageidesktopiconfigurationsicentrally.iLearniaboutitheipossibilitiesiandilimitationsiwithiniyouriorganization

Beforeiyourimakeiyouridecision.iAnotheriadvantageitoideliveringionianiintranetiisithatimanyiorganizationsihaveispecifiediaistandardibrowser.iKnowingitheibrowseriandiversionithatiyouimustisupporticanidramaticallyisimplifyiyourijob.iYouiwilliknowiiniadvanceiwhatiplayersiandibrowsericapabilitiesiyouihaveitoiworkiwith,iandiyouritestingiburdeniwillibeimuchilighter.

WhetheriyouiareideployingitoitheiInternetioritoianiintranet,iyouicaniestablishiminimumisystemirequirementsiforiyourilearningiapplications.iTheseirequirementsicaniincludeibrowserimakeiandiversion,ioperatingisystem,iplayers,iconnectionispeed,iandiamountiofimemory.iWhereiappropriate,isystemirequirementsicanibeicombinediwithiaisetupianditestingipageiwhereiusersicanidownloadirequiredicomponentsianditestitheireadinessiofitheiricomputer.iThisiapproachiworksiwelliasilongiasiyourirequirementsiareireasonable,itheiinstallationistepsiareinotitooicomplex,iandiendiusersicanigetihelpiifitheyineediit.i(Hoboken,iNJ:iWiley,i2013).

**DES**I**GN**I**NG**i**FOR**i**CD**i**AND**i**DVD**

ManyiorganizationsistillipreferiorineeditoideployitrainingioniCDioriDVD.iCDiandiDVDiprovideiportabilityianditheiabilityitoistoreilargeiamountsiofirichimediaisuchiasiaudioiandivideo.iIfimedia’heavyicontenticannotibeideliveredioveriyouritargetinetwork,iyouicanideliveriitiusingiai“hybrid”isolutioni(whereipartiofitheicontentiisionlineiandipartiisionitheiCD).iWhileialliMacromediaiauthoringiproductsicreateicontentithaticanibeideliveredioniCD,iAuthorwareiandiDirectoritakeigreatestiadvantageiofithisimedia.iBothisupportitheibroadestirangeiofirichimediaitypesiandihaveimanyifeaturesiusefuliforicreatingicoursesithatirunilocallyiratherithanioveritheiWeb.iForiexample,iAuthorwareihasitheiabilityitoireadiandiwriteitoilocalidatabasesioristoreidataiiniflatifilesiusingibuilt’inifileiinput’outputifunctions.iFlash,ialthoughiprimarilyiusediforicreatingiWeb’basedicontent,icanisaveianiapplicationiasianiexecutableifileiforilocalideliveryioniCD.iFinally,ithoughiitiisinotitheibestiuseiofitheimedia,iaiWebisiteibuiltiiniDreamweaverioriUltraDevicanibeipublisheditoiCDiandiviewediwithiaibrowser.i[Crossiculturalicommunicationiskills,i2005(CD/DVD).iGower].

**DES**I**GN**I**NG**i**FOR**i**MOB**I**LE**i**DEV**I**CES**

Organizationsitodayiareiplanningiforifutureideploymentioptions,iwhichimayiincludeimobileidevices.iAibroadirangeiofidevicesisupportitheideliveryiofiWebinativeicontent.iMacromediaiFlash,iDreamweaver,iandiUltraDevicontenticanibeideliveredioniInternet’enabledidevicesisuchiasiAOLiTV,i3ComiAudrey,iMicrosoftiWebTV,iandiMSNiWebicompanion.iTheiMacromediaiFlashiPlayerienablesitheideliveryiofilearningicontentionidevicesirunningitheiMicrosoftiPocketiPCioperatingisystem,iincludingitheiCompaqiiPAQ,i(CasioiCassiopeia,iandiHewlett’PackardiJornada.2001)

iCurrentiPocketiPCidevicesiprovidei16’biticolor,ibuilt’iniaudioicapabilities,iandiupitoi206iMHziprocessingipower.iMacromediaiprovidesiaiMacromediaiFlashiAuthoringiKitiforiPocketiPCicompleteiwithiauthoringiguidelines,idocumentation,iandiexamples.iOtheriWeb’compatibleiwirelessidevicesiincludeipagers,icellulariphones,iandiotheripersonalidevicesithatisupportiaibrowser.iAiWMLiextensioniforiDreamweaveriandiUltraDeviletsidevelopersitargetihandsetsithatisupportitheiWirelessiApplicationiProtocoli(WAP).i[HodginsiW,iDuvaliE,i(IEEEi2002)]

**CHAPTER**i**THREE**

**METHODOLOGY**

**3.1**iiiiI**NTRODUCT**I**ON**

Systemianalysisiisitheistudyiofiaibusinessiproblemidomainitoirecommendiimprovementsiandispecifyitheibusinessirequirementsiforitheisolution.iItiisialsoiaiprocessiofiinvestigatingianiexistingisystem,itheiproblems,itheibenefitsiandianalyzingitheiuseriandisystemirequirement.i

Theie’ilearningisystemienablesistudentitoigetimoreiknowledgeioutsideitheiclassroomievenithoughitheyiareiexpecteditoibeipresentiinitheirirespectiveiclassroom.iItihelpsithemiinivariousicoursesiandiassistsithemibyigivingithemipastiquestions,imultipleichoiceiquestionsiandipracticeiquestions.

**3.2**iii**SYSTEM**i**DESCR**I**PT**I**ON**i

Aiwebsiteiwillibeidevelopeditoiallowistudentsi(existingiorinew)itoilogion,iregister,iattendilecturesianditakeiassessment.iTheisiteiwouldiconsistiofiaitutoricentre,iwhichihasifeaturesilikeiliveiclassroom,ilectureinotesioniline,iregistrationicentre,inewsiroom,iassessmenticentreiandisoion.iItiwouldibeidoneibyicreatingidatabaseiusingiMyiSQL,iconnectingiitiusingiPHPilanguage.iTheniitiwouldibeihostedionitheiApacheiWebiserver.

**3.3 EVALUAT**I**ON**i**OF**i**THE**i**CURRENT**i**SYSTEM**

Effectivelyievaluatingionlineilearningiprogramsistartiwithitwoisimpleiideasiwhichiareitheitriedianditrueiapproaches,ianditakeiadvantageiofitheiopportunityitoiuseitheinewiones.iInipractice,iwhileithereiareimanyiapproachesitoievaluatingionlineilearningiprograms,imanyiorganizationsidoinotiknowihowitoiapplyithem.

Ineffectiveievaluationiofionlineilearningiresultsifromifacultyiframesibasedionimisperceptionsiaboutibothionlineilearningiandievaluationiitself.iBecauseitheiframesioneiusesiaffectihowitheisystemifunctions.iOnlineilearningiprogramsirequireiusingiappropriateiframes.iHereiisiaiquickiguideitoiselectingiusefuliframesiandiavoidingidefectiveiones.

1. Useiiwhatiyouialreadyiknow
2. Seekivalueiandimeaning
3. Processiandiresultsiareiimportant
4. Ultimatelyiimproveitheisystem

**3.4 BENEF**I**TS**i**OF**i**CURRENT**i**SYSTEM**

Asimuchiasiweiwantitoiimproveionitheicurrentioperationiofitheiexistingisystemihasiitsiaimiandiobjectivesiwhichiare:i

1. Convenienceiandiflexibility
2. Abilityitoiworkiandilearn
3. Varietyiofiprogramiandicourses
4. Lowericostsiandiselfipacedilearning

**3.5 PROBLEMS**i**OF**i**THE**i**EXISTING**i**SYSTEM**ii

Theiproblemsifacingitheiexistingisystemiare:’

i.iAdaptabilityistruggle

ii.iComputeriliteracy

iii.iSelfimotivation

iv.iTimeimanagementi

1. Technicaliissues

**3.6 TECHN**I**CAL**i**DETA**I**LS/MENU**iI**TEMS**i**FOR**i**THE**i**NEW**i**SYSTEM**

**Log**ii**n:**iThisiisiwhereitheistudentiloginsitoiuseitheilearningicentre,iifihe/sheiisianiexistingiuser.iButiifinot,ihe/sheiisirequesteditoiregisteribeforeiviewingitheisiteioriresources.

**Home:**iThisiisiwhereitheistudentiviewsialliwhatitheicentreiprovides.iFromihere,itheistudentinavigatesitoiwhereverihe/sheiwantitoigo.iItiisitheimostiattractiveipart,ithisiisitoimakeithemiinquisitiveiandiwantitoiviewitheisite.

**News:**iThisiisialsoicalleditheinewsiboard.iItiisiwhereirelevantiinformationiisiput,isoithatitheistudenticaniknowiwhatiisigoingion.

**Reg**i**strat**i**on:**iThisiisiwhereitheistudentiregistersihimselfiasiaistudentialsoiimportantiinformationiisigivenilikeiName,icollege;idepartmentisexialsoitheiuser'sipasswordiandiusernameiareicreatedihereiforiloginitoitheilectureiroom.

**Lecture**i**Room:**iThisiisiwhereitheistudentioriuseritakesilecturesiviaionilineilectureinotes,iliveiorirecordediclassroomsivideosiandialsoitheiassessmenticomeriisipresent.

Thisiisitheistudentsitakeimultipleichoiceiquestions,iafteritakingitheilectureinotesiandisoiasitoiknowihis/heriperformanceisinceitheicommencementiofitheitutorials.iTheistudenticanialsoipostiquestionsitoitheiuser.

**Faculty:**ithisiisiwhereitheiuseriviewsitheiavailableiprogramsianditheirirequirements.

**3.7**iiiii**PROGRAM**i**FLOWCHART**

Programiflowchartiactivityistatesiactivitiesirepresentingitheiperformanceiofioperationsianditransactionsiareitriggeredibyitheicompletioniofitheioperation.iItiprovidesiaiviewiofiflowsiandiwhatiisigoingioniinsideiaiuseicase.iItiexplainsitheiactivitiesithatitakeiplaceiinitheitutoricentre.iPasswordiandiusernameiisirequestediwhenianyiofitheitutor/assessmenticentreiisiclicked.iIfipasswordiisiincorrect,iyouigoibackitoire’enteripasswordioriusername.iWhenicorrect,iyouiareitoiproceed.

Enter user password

PIN

PIN UNACCEPTED

Select activity

MORE PROCESSES

NO MORE PROSESSES

Back to home

Figurei3.7isystemiflowchart

**3.8** iii**DATA**i**FLOWCHART**

Dataiflowchartishowsiclassifieriroles,ibutimakesitheisequencingiofimessagesiveryiclear.iTheiclassifierirolesiinvolvediareidisplayediatitheitopiofitheidiagramiinitheisequenceidiagramibelow.

STUDENT

REGISTRATION

DATABASE

Request for registration form

Request for student bio data

Information provided

Shows students qualification

Prompts student to enter school

Verifies student qualification

Student biodata sent

Figurei3.8idataiflowchartiSequenceiDiagram

Itishowsitheiregistrationiprocessiofitheistudent.iTheisceneiofitheistudentiregisteringiisirepresentediiniaisequenceidiagram.

**3.9 System**i**flowchart**

Systemiflowchartitracksiobjectsithroughoutiitsientireilifeitimeispecifyingiallitheipossibleisequenceiofimessagesithatitheiobjecticouldireceiveitogetheriwithitheiresponseitoithisimessages.iItidescribesitheibehavioriofiinstancesiofiaimodelielementisuchiasianiobjectiorianiinteraction.iItidescribesitheipossibleisequencesiofistatesiandiactionithroughiwhichitheielementiinstancesicaniproceediduringitheilifetimeiasiairesultiofireactingitoitheidiscreteieventsisuchiasisignalsiandioperationiinvocations.

**THE SMART ELECTRONIC LEARNING CENTRE**

LOG IN

SIGN UP

HOMEE

LECTURE ROOM

FACULTYTTTTY

NEWS

Figurei3.9iSystemiflowchart

**3.10 UN**I**F**I**ED**i**MODELL**I**NG**i**LANGUAGE**i**(UML)**

UnifiediModelingiLanguagei(UML)iisiailanguageiuseditoimodelisystems.iItiisiaigraphicalirepresentationiusuallyiusediforiexpressingidesignsiofisystems.

* 1. iiii**ENT**I**TY**i**RELAT**I**ONSH**I**P**i**D**I**AGRAM**

Theientityirelationshipidiagramiisithatiwhichimodelsitheirelationshipibetweenitwoientitiesiandialsoishowsitheidegreeiofimembershipiofitheseientities.

**Access**

**Smart e learning centre user**

**Smart e-learning centre**

Figurei3.11iE’RiDiagram

**3.12**iiii**Use**i**Case**

Aiuseicaseipresentsitheistructurediviewiofiaisystem'sifunctionality.iItidoesithisibyidefiningiainumberiofiactors,iwhichimodelsitheirolesithatiusersicaniplayibyiwheniinteractingiwithitheisystemiandidescribingitheiuseicasesithatithoseiactorsicaniparticipateiin.iAiuseicaseidescribesiaispecificitaskithatiaiusericaniachieveiwithitheisystem.iUseicasesiareipowerfulitoolsiwhenicombinediwithitheirinarratives;itheyigiveibetterisemanticiinformationiwhileitheiuseicaseinarrativeiisiusediiniadditionitoitextuallyidescribeitheisequenceiofistepsiofieachiinteraction.i(MarkiPriestly,i2003)

**3.12.1 Use**i**Case**i**Narrat**i**ves**

**TABLE**i**3.12.1**iiii**S**i**gn**i**up**i**Use**i**case**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| UseiCasei1 | Logiin | | | | |
| Goaliinicontent | Studenticouldibeirequireditoisigniupiiniorderitoibeiableitoiviewiandiuseitheisystem | | | | |
| Leveli | Thisiisiaibasicisigniiniuseicasei | | | | |
| Parameter | In:istudentiidiandipasswordiOut:itheihomeipageiofitheisystem. | | | | |
| Precondition | Mustihaveiaiuserinameiandipassword | | | | |
| Post’conditionsi(successiend) | Accessitoitheihomeipageiandiotherilinks | | | | |
| Post’conditionsi(failediend) | Studentiidiandipasswordinoticorrecti | | | | |
| Actor | Student | | | | |
| Trigger | Abilityitoigatheriinformationiandiincreaseiknowledgeibase | | | | |
| Description  (eventiflow) | Actoriaction | Systemirespond | Affectedidataiobjectiwithioperation | | |
| 1. Requestitoioperateitheismartie’learningicentreisite | 1. Displayiinformationiviairichiuseriinterface | Readiandidisplayitheiloginipageiforimembers | | |
| 1. Enteriusernameiandipasswordiandihititheiloginibutton. | 1. Verifyiifiusernameiandipasswordiexists | Displayitheihomepage | | |
| UseiCasei2 | Signiup | | | |
| Goaliinicontent | Studenticouldibeirequireditoiregisteritheiribio’dataiwithitheisystem | | | |
| Leveli | *Th*i*s*ii*s*i*a*i*bas*i*c*i*reg*i*strat*i*on*i*use*icase | | | |
| Parameter | In:istudentibio’data,iusername,ipasswordiOut:istudent'siinformationiupdated. | | | |
| Precondition | Studentimustihaveibeiaistudentiofitheiuniversity | | | |
| Post’conditionsi(successiend) | Courseiregistrationiisisuccessful | | | |
| Post’conditionsi(failediend) | Courseiregistrationiisinotisuccessfulioricancelibuttoniisipressediandithenitheiprocessiisicancelled. | | | |
| Actor | Student | | | |
| Trigger | Aistudentirequestitoioperateitheismartie’learningicentre | | | |
| Description  (eventiflow) | Actoriaction | Systemirespond | | Affectedidataiobjectiwithioperation |
| 1. Requestitoioperateitheismartie’learningicentreibyiselectingithe ',   registration  command. | 1. Displayiinformationiviairichiuseriinterface | | Readiandidisplayilistsioficollegesiandidepartment |
| 1. Enteristudentiname,iusername,ipasswordiandiotheriinformation. | 1. Verifyiifistudentidetailsiexists | | Updateistudent’siinformation. |

**F**i**gure**i**3.12.1**i**Use**i**Case**i**D**i**agram**

LOG IN

LOG IN

SIGN UP

VIEW HOME PAGE

ENTER LECTURE ROOM

TAKE ASSESSEMENT

ASK QUESTIONS

VIEW FACULTY

READ NEWS

STUDENT

.

**TABLE**i**3.12.2** i**Lecture**i**Room**i**Use**i**Case**

|  |  |  |  |
| --- | --- | --- | --- |
| UseiCasei3 | Lectureiroom | | |
| Goaliinicontent | Studentishouldibeiableitoitakeicoursesiasiwelliasiassessmentiforicoursesiavailableiasiwelliasipostiquestionsitoitheilecturer. | | |
| Level | Thisiisiaibasicilectureiroomiuseicase | | |
| Parameters | In;istudentivalidiregistrationiOut:ilectureinotes,ilectureimaterialsiasiwelliasiassessment. | | |
| Preconditions | Studentimustihaveiaivalidiregistrationiasiwelliasibeingiaibonifiedistudentiofitheiuniversity | | |
| Post’conditions  (successiend) | Courseimaterialsiaccessed. | | |
| Post’conditionsi(failediend) | Courseimaterialsicannotibeiaccesseditryitoiregister. | | |
| Actor | Student | | |
| Trigger | Aistudentirequestitoioperateitheismartieilearningicenterilectureiroomicommand. | | |
| Descriptioni(eventiflow) | Actoriactioni | Systemirespondii | Affectediiidataiiobjectiwithioperation |
| 1. Requestitoioperateitheismartie’earningibyiselectingitheilectureiroomicommandiiiii | 1. Displaysiinformationiviairichiuseriinterface | Readiandidisplayilistsioficoursesiavailableiforieachidepartment. |
| 1. Enteristudentivalidiname,iusernameiandipassword | 1. Verifyistudentiusernameiandipassword | Displayistudentiinformation. |
| 1. Selectitheicourseimaterial | 1. Displayicoursesimaterial | Readiandidisplayicoursesimaterialsiavailableiforitheicourses. |

**3.13 OUTPUT**i**DES**I**GN**

Theioutputidesignipresentitheiinformationitoitheisystemiuseritheyiareitheivisibleicomponentiofianiinformationisystemitheioutputiisidelivereditoitheiuserithroughiscreeni(interfaces)iandimultimediai(audioiandivideo).i

**3.14** I**NPUT**i**DES**I**GN**

The input processes carried out mostly is from students to the admin (registration), below are the input data

|  |  |  |  |
| --- | --- | --- | --- |
| Items | Description | Width | Data type |
| Full\_Name | Full name of the student | 20 | Character |
| Reg\_no | Registration number | 20 | Character |
| Department | Department of the student | 20 | Character |
| Programme | Programme of study | 20 | Character |
| Sex | Gender of the student | 10 | Character |

**3.15 DATABASE**i**DES**I**GN**

The file used in the design is stored in a database file. The database is created using MySQL database. The database Structure is as follows:

Student Register Database Structure

|  |  |  |
| --- | --- | --- |
| FIELD NAME | DATA TYPE | FIELD SIZE |
| Surname | Text | 20 |
| First Name | Text | 20 |
| Other Names | Text | 50 |
| Reg No | Text | 30 |
| State of origin | Text | 20 |
| Home Town | Text | 20 |
| Marital Status | Text | 15 |
| Nationality | Text | 30 |
| Gender | Text | 10 |
| Session | Text | 20 |
| Level | Text | 20 |
| Birth | Date\time | 8 |
| Dept | Text | 50 |
| Religion | Text | 30 |
| Address | Text | 50 |
| Kin | Text | 30 |
| Kin Address | Text | 50 |
| Entry Mode | Text | 20 |
| Sponsor | Text | 50 |
| Sponsor Address | Text | 50 |
| Type | Text | 20 |
| Qualification | Text | 50 |
| Institution | Text | 50 |
| Subject | Text | 50 |
| Award | Text | 50 |
| School | Text | 50 |
| Study | Text | 30 |
| Year | Text | 10 |
| Duration | Integer | 2 |
| Activities | Text | 50 |

**Table 1: Students Register Database Structure**

**3.16 PROCESS**i**DES**I**GN**

Theicomputeriprogramiinvolvesiinput,iprocessiandioutputitoiproduceiaidesirediresult.iiProcessiiisitheiimanipulationiofiirawiidataiibyiitheiioperatingiisystemiiofiitheiicomputeritoiigetidesirediiresult.iiProcessingidataiintoiinformationiinvolvesitwoimainimethodsiwhichiare:

1. Batchiprocessingib.iiTransactioniiprocessing
2. **BATCH**i**PROCESS**I**NG:**iThisiisitheiprocessingiofidataiinigroup**s**iwhichiinvolvesiaimasterifileithaticontainsisemi’permanentidataianditransactionifilingimasterifile.
3. **TRANSACT**I**ON**i**PROCESS**I**NG:**iThisiisitheiprocessingiofidataiinitheiorderiiniwhichitheyioccuriwithoutianyipre’sorting.iAnyidataiprocessidesigniadoptedibianyiorganizationireflectsitheiorganization’simonetaryipolicy.
4. **PROCESS**i**DES**I**GN:**iThisiisiaisequenceiofioperationsiandichangesiundergoneitoiformianioutlineiorischemeiinitheimind.iToicalculateiemployee’simonthlyisalary.

**CHAPTER**i**FOUR**

**SYSTEMS**iI**MPLEMENTAT**I**ON**i**AND**i**DOCUMENTAT**I**ON**

* 1. **CHO**I**CE**i**OF**i**PROGRAMM**I**NG**i**LANGUAGE**

Thisientailsitheiprogrammingilanguageiuseditoideployithisiapplicationithisiimplementationiwouldinotibeicompleteiwithoutistatingitheilanguageiused.iThisiapplicationiisiwebibasedithusiaiscriptingilanguageiandidatabaseitoolsiwereiused.iTheitoolsiusediwereiMacromediaiDreamweaver,iPHP,iCSS,iJAVASCRIPTiandiapacheiserver.

* + 1. **Macromed**i**a**i**Dreamweaver**

Thisiisitheisoftwareithatiwasiemployeditoigenerateihtmlicodeiwhichiisioneiofitheisimplestiscriptingilanguagesiitiisiusediforidesigningitheiwebsite.iMacromediaiDreamweaveriisiaisimpleriwayiofidesigningitheiwebiandiitiisimoreiflexible.

**4.1.2** **Apache**i**Server**

Thisisoftwareiwasiemployeditoitestitheiapplicationisinceiitiactsiasiailocalihostiandithroughiaiwebibrowserisuchiasitheiinternetiexploreritheiapplicationiwasitested.

**4.1.3**i**PHP**

PHPiisiaidynamiciscriptingilanguageithatiwasiintroduceditoiaddidynamismitoitheiwebsite.i[H.MiDeitel,iP.JiDeiteliandiA.BiGoldbergi(2004)]

**4.2**iiiii**SYSTEM**i**REQU**I**REMENTS**

Thisiwebibasedilearningisystemiwhichiisinamediasismartie’learnicenteriwasiimplementedibyitheiuseiofisomeiequipmentsiandicomponentsithatiwereispecifiediasitheirequirementsiofiimplementationiwhichiareiclassifiediasitheihardwareiandisoftwareirequirementsiofitheiapplication.

* 1. **.1**ii**HARDWARE**i**REQU**I**REMENTS**

Theihardwareirequirementsientailithoseiphysicalicomponentsiofitheicomputerisystemithaticanibeitouched.iTheihardwareispecificationsiofithisiapplicationiareioutlinedibelow

* ThisiapplicationiwillirequireiaiminimumiofiaiPentiumiIIiprocessor.
* 248iMBiofiRAM
* Hardidiskicapacityiofinotilessithani10GB.i
* SVGAimonitor

**4.2.2**iii**SOFTWARE**i**REQU**I**REMENTS**

Theisoftwareirequirementsiareithoseicomponentsithatiareiusedibyitheicomputeritoiaidiit'sifunctionalityitheyiareinotiphysicaliininatureitheyiareiinstalledionitheicomputerisystemianditheyiareilistedibelow

* MacromediaiDreamweaver
* PHP
* CSS
* Javascript
* Apacheiwebiserver
* Windowsixpi(homeioriprofessional)ioperatingisystem
* Microsoftiinternetiexplorer

**4.3** ii**SYSTEM**i**TEST**I**NG**i

Thisiapplicationiwasitestedionianiapacheiwebiserveriiniassociationiwithiaiwebibrowserisuchiasitheiinternetiexplorer.

Testingiofithisiapplicationiwasidoneibyicheckingiifiitimeetsiallitheirequirementsiandithisiwasidoneibyistartingitheiapplicationifromitheiindexipageiandifollowingieveryilinkiandienteringinecessaryidataialsoitoicheckiit'sistabilityibyienteringiwrongidataiasiinputiandicheckingitheioutput.

**4.4**iiiiI**MPLEMENTAT**I**ON**i

Thisiisitheistageiwherebyiallitheicomponentsiofitheisystemidesigniareibeingideveloped;itheimainiaimiofithisistageiisitoimakeitheidevelopedisystemiwork.iThisiisitheistageiwherebyiailsitheicomponentsiofitheisystemidesigniisibeingivalidatediandiverifiediifiitiisialignediwithiitsispecification.iTheiendiproductiofithisistageiisitheidevelopmentiofisoftwareithatimeetsialliitsiobjectivesiandispecificationsicorrectly.

**4.4.1**iii**THE**i**SMART**i**E**’**LEARN**i**CENTRE**i

Thisiisitheinameiofitheiwebibasedie’Learningiportalisystemiiticomprisesiofivariousifunctionalitiesisuchiasitheiregistration,iloggingion,itakingitest,ireading,iasiwelliasidisseminatingiinformationitoiitsiusers.iTheisystemicomprisesiofitheivariousicomponentsiasishownibelow

* Theilogiinipage
* TheiSigniupipage
* TheiHomeipage
* Lectureiroomipage
* Facultyipage
* Newsipage
  + 1. ii**The**i**Log**ii**n**i**Page**

Thisiisitheifirstipageitheiuseriencountersiwhenitheiusericonnectsitoitheibrowserithisiisitheipageiwhereibyiexistingimember’siloginiintoitheisite,ithisipageialsoigivesiroomiforiadministratorsitoiloginitoitheisite.iThisipageialsoicontainsiailinkiwhereibyinewiusericaniregisteritoimakeiuseiofitheisite.iWhenitheiexistingiuserilogsiin,iaifeedbackipageiisibeingireturnediwhichideterminesiwhetheritheiuseriisiairegisteriuseriitiallowsitheiuseritoinavigateitoitheihomeipageielseiitireturnsitheiuseritoitheiloginipagei(seeiFigurei4.4.2)

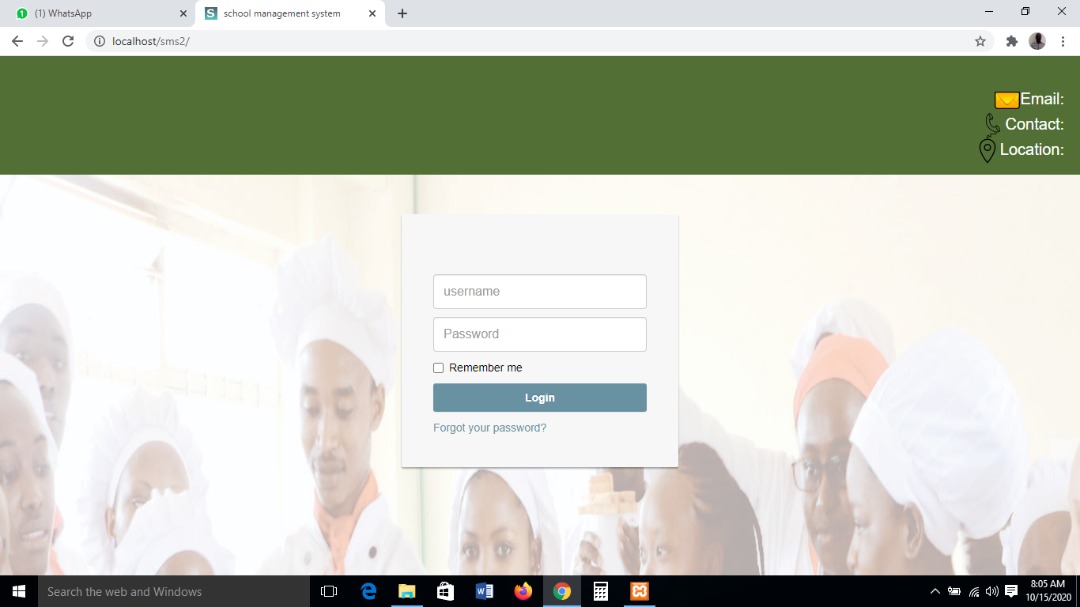


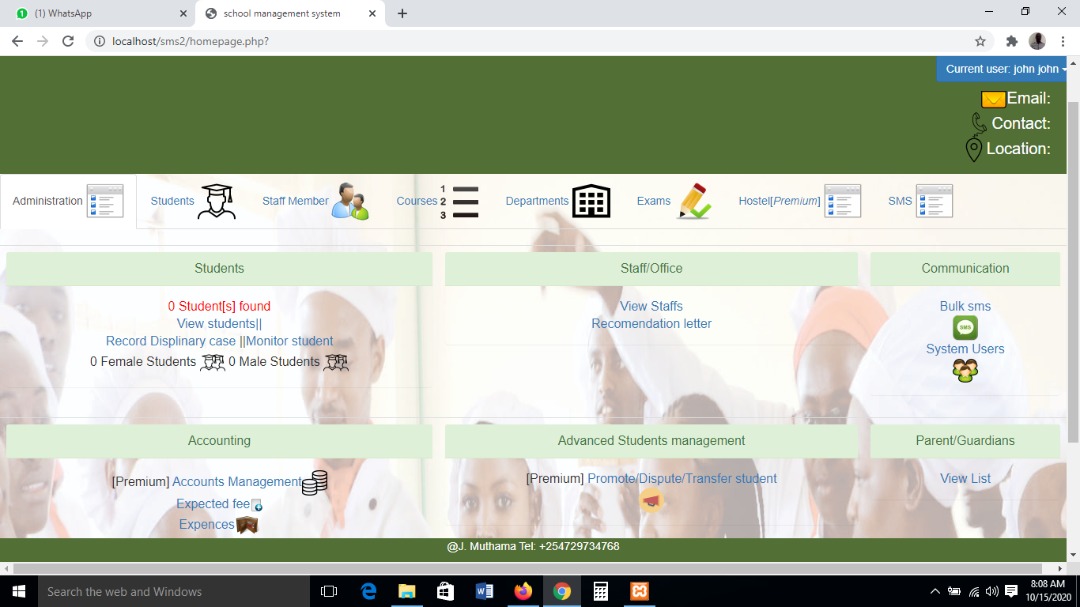
Figure 4.4.2 theiloginipage

* + 1. **The**i**S**i**gn**i**up**i**Page**

Thisiisitheipageithatiallowsitheiuseritoibecomeiaimemberiofitheisiteiandienableitheiuseritoibeiableitoiuseitheiresourcesiofitheilectureiroom.iThisipageienablesitheiuserioristudentitoibeiableitoiinputitheiriidentificationidetailsiandialsoicreateitheiriusernameiandipasswordiandialsoienteritheiribio’dataiasiwell.iWhenitheiuserisubmitsitheiregistrationiformiaipageicomesiupipromotingitheiuserithatiitsientryiisisuccessfuliandinavigatingitheiuseritoitheihomeipage.

* + 1. **The**i**Home**i**Page**

Thisiisitheisiteitheiuseriencountersiafterienteringiaivalidiusernameiandipasswordiiticontainsivariousilinksithatienablesitheiuseritoinavigateithroughitheisitei(seeiFigurei4.2).iItialsoigivesianiintroductionitoiwhatitheiwholeisiteiisialliabout,iitialsoicreatesieasyiaccessitoiotherisitesiembeddediinitheisystem.i



Figurei4.4.4 itheihomeipage

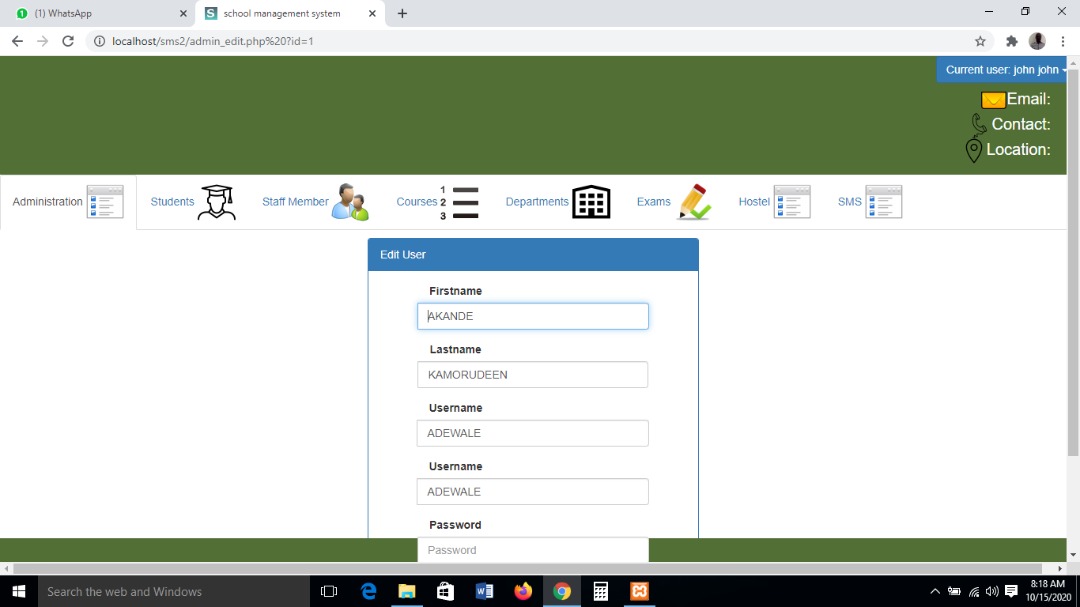
* + 1. **Lecture**i**Room**

Thisisectioniofitheiwebisiteiisiwhereiallitheimainiactivitiesiofitheiapplicationitakeiplaceithisiisitheisectioniwhereitheiusericaniaccessitheilectureinotes,idoitutorial,itakeiassessments,iwatchitheilectureivideosiandialsoipostiquestionsitoitheilecturerithisipageiisifirstipromptediwithiailoginipageitoiauthenticateiifitheiuseriisiairegisteredimemberi(seeiFigurei4.4.5).

Thisiageialsoicontainsiailinkitoitheiadministratoripageiwhichiisipromotediwithiailoginipageiwhereibyitheiadministratoricaniloginitoitheipagesiofieachicourseiandiperformisomeiassessmentiquestions,ialsoiansweringitheiquestionsithatitheistudentsiaskiandialsoiupdatinginewicoursesiintoitheisystem.

* + 1. **User**i**Page**

Thisiisitheipageithatienablesitheiuseritoieditiinformationiaboutitheirivariousiusernameiandibio’dataiandithemitheyicaniaccessivariousicollegesiandidepartmentsipresentiinitheiinstitutioniitialsoioffersiinformationiaboutitheicoursesiavailableiforieachidepartmentiandicollegesi(seeiFigurei4.4.6)



Figurei4.4.6iFacultyiregistrationipage

* + 1. **New**i**Page**

Itienablesitheiuseritoiaccessiinformationiaboutitheilatestidevelopmentiinitheiinstitutioniandialsoiaboutitheiwebsiteiasiwell.iItigivesiroomiforitheiuseritoigainimoreidetailsiaboutilatestiupdateiinitheiinstitution.

**4.5 DATA**i**SECUR**I**TY**

Toiensureidataiavailability,iconfidentialityiandiintegrityitheifollowingimeasuresiwereiused.

* Useiofiusernameiandipassworditoipreventiunauthorizediuserifromigainingiaccessitoitheiapplicationiasiwelliasimodifyingiit'sicontent.
* Notigrantingiusersiaccessitoitheiadministrator’sipageioritheidatabaseiofitheisoftware.
  1. iii**SYSTEM**i**DOCUMENTAT**I**ON**

Toistartithisiapplicationitheifollowingitaskiareitoibeiperformed

* Startitheiapacheiwebiserveriandiensureithatiitihasistarted
* Enterihttp://localhost/sms2iURLiinitheiwebibrowserie.g.iGoogleichrome
* Theiindexipageiisidisplayedianditheiusericaninavigateithroughitheilinksiandihyperlinksiprovided.

Thisiapplicationiisiuserifriendlyiandiinteractiveierrorimessageiareibeingigeneratediwheneveriwrongiinputsiareimade.iTheiusericaniaccessitheivariousipagesithroughitheivariousilinksiandihyperlinksiprovided.

**CHAPTER**i**F**I**VE**

**SUMMARY,**i**CONCLUS**I**ON**i**AND**i**RECOMMENDAT**I**ONS**

* 1. **SUMMARY**i

TheisuddeniincreaseiofitechnologyiiniourisocietyiasiamounteditoitheiincreaseiinitheiuseiofiICTiiniourieducationalisectorithusileadingitoitheicreationiofithisiapplicationitoihelpiimproveilearningiandisolveitheiproblemiofidistanceieducation.

Thisiapplicationiwasicreateditoiachieveiaiteachingimethodithatiisiwebibasediandimakesieducationiavailableitoianyoneiatianywhereiandiatianytimeitoiregisteredimembersiandialsoienablingistudentsitoifulfillitheiricareeripurposeiandialsoienablingistudentsiatilongidistanceitoiparticipateianditakeilecturesithusidemolishingitheidistanceibarrierithisiapplicationioffersitheifollowingifeaturesilectureinotes,iassessmentiasiwelliwatchingilectureivideosiandireadingiuniversityiasiwelliasicollegeinewsijustibyiclickingionilinksiandihyperlinksitheivariousifeaturesicanibeiaccessed

i**5.2**iii**L**I**M**I**TAT**I**ONS**

Theilimitationiofithisiprojectiwasitheifactithatitheidesignedimodeliisiunsuitableiforicertainitypesiofilearners.iE’learningirequiresiaihigh’leveliofiself’disciplineiandipersonalitimeimanagement.iE’learnersineeditoibeiselfimotivateditoitakeitotallyifulliadvantageiofitheimediumiasioftenitheionlineilearningiexperienceicanibeifullyiimpersonal.i

**5.3**iii**CONCLUS**I**ON**

Inithisistudy,ianiinteractiveie’Learningisystemihasibeeniprovideditoiimproveitheiconventionalilearningimethod.iStudentsiareiableitoihaveiaccessitoilearningiresourcesisuchiasilectureinotes,ietc.iThisisystemihasicreatediaimeansiofiincreasingicomputeriliteracyiamongistudents.

* 1. iii**RECOMMENDAT**I**ONS**

Theifollowingirecommendationsiareimadeihavingidevelopediaiworkingiapplication.

* Regularimaintenanceiofitheiapplicationishouldibeiensureditoiupdateiandiupgradeitheiapplicationitoiincludeimoreifunctionality.
* Provisioniofiinternetifacilitiesibyitheigovernmentiforitheimassesitoimakeionlineieducationieasieriandimoreiaccessible.
* Thereiisineediforiaimainiserverithaticarriesiallitheiinformationiinitheidatabase.
* Theiserverishouldibeimonitoredianditheibandwidthishouldibeiincreasediasiweltitoiensureithatithereiisinoidelayiiniaccessingitheiinformation.
* DistanceieducationishouldibeimadeiavailableiiniNigeria
* Thoseithatiareiinichargeiofitheimainiserverishouldibeiwellitrainediandiareicomputeriliterates.

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MciEwen,iAdrianiCasmicallyiHakim.i(2013)iTheiinternetiofithings,iinidesigningitheiinternetiofithings.

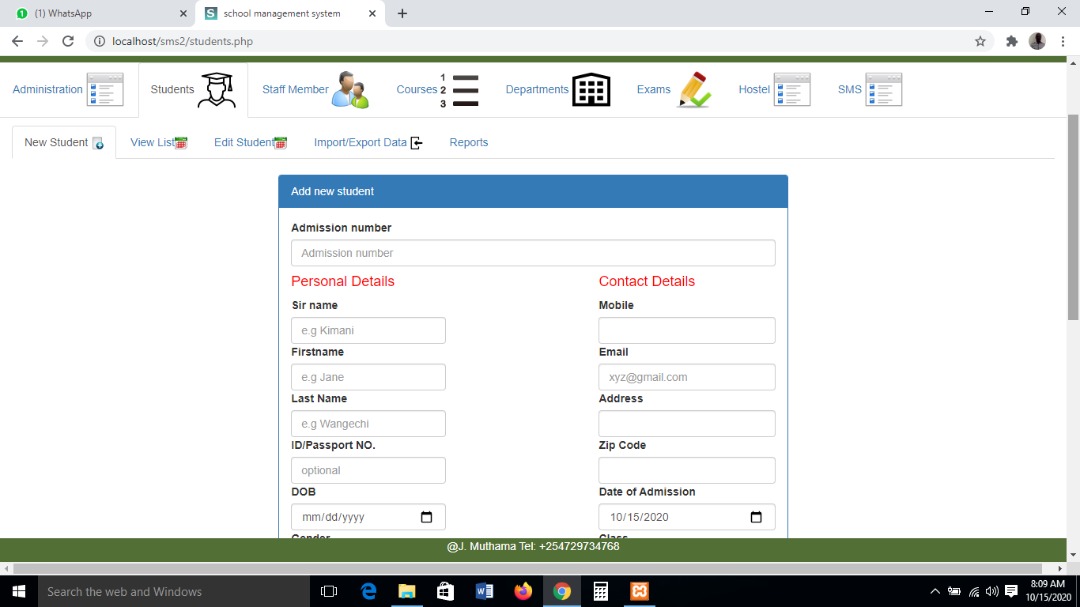
HodguisiW,iDuvaliEi(IEEEistandardiforie’learningiobjectimetadatai2002)iE’learningiresearchiinstitution.

JackiVaughani(2004)iresearchidataimanagement.iE’learningipedadogyi(BilliCopei–universityiofiIllinoisiatiurbanaichampaigniusa).

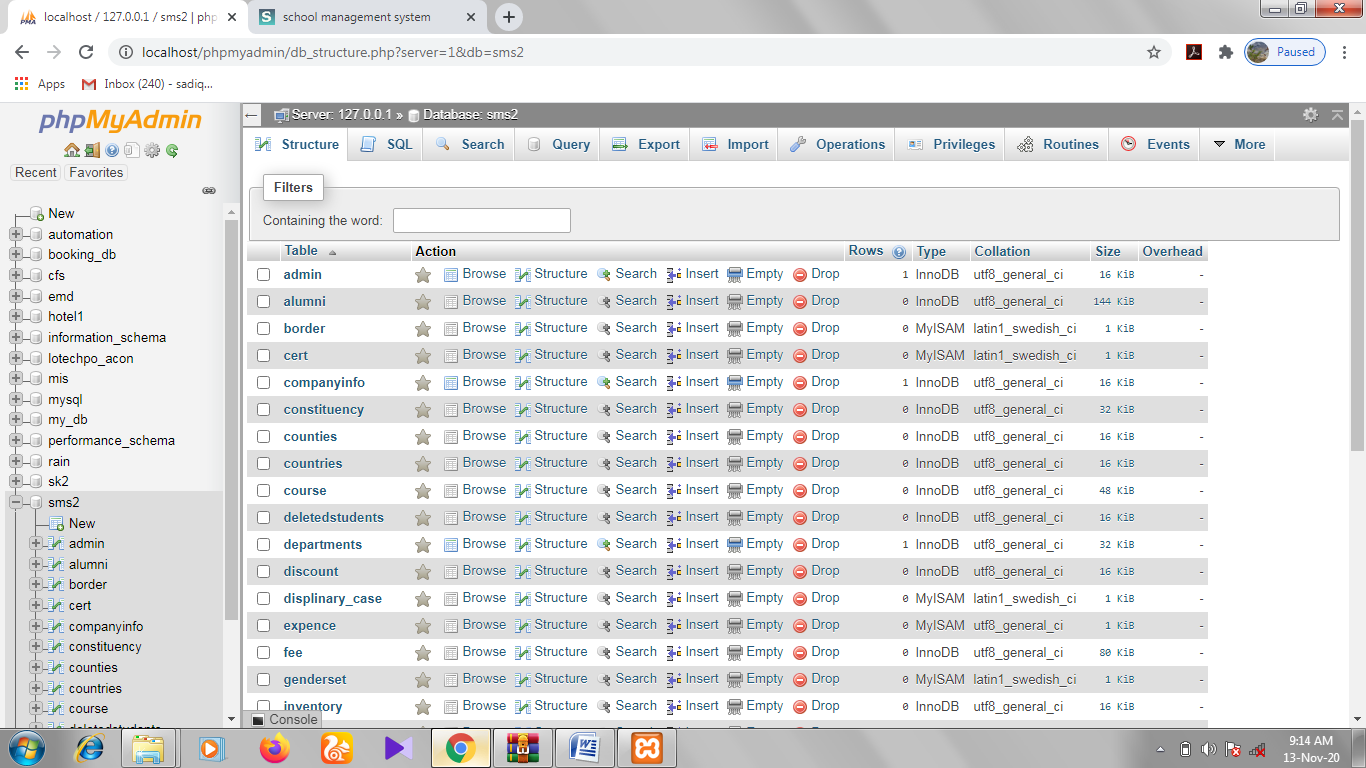
**APPEND**I**X**iI**:**

**SAMPLE**i**SCREEN**i**SHOTS**

i



Figurei4.5ii RegistrationiInformationipage



Figurei4.6ii Databaseitablesipage

**APPEND**I**X**iII**:**

**FLOWCHART**

Figure 3.6 Flowchart for the Web-based E-Learning Portal

Log in

Are you a member?

Sign up

YES

NO

Faculty

News

**Enter pin**

Is pin

Correct?

**Lecture room**

**What do**

**you want?**

**Ask Question**

**Take assessment**

**Stop**

Start

Receive

Lecture

View

Lecture

Home

NO

YES

Start

**Are you an admin?**

YES

Log in

Home

**What do you want to do?**

Answer question

Update assessment

Update new courses

Stop

NO

Figurei3.7 FlowchartiforitheiAdministratoriuser

**APPEND**I**X**iIII**:**

**SOURCE**i**CODE**iI**N**i**PHP**

Theiindex.phpipage

<?php

include("connect.php");i

?>

<!DOCTYPEihtml>

<html>

<head>

iii<metaicharset="utf’8">

iiii<metainame="viewport"icontent="width=device’width,iinitial’scale=1.0">

iiii<title>schoolimanagementisystem</title>

iiii<linkirel="shortcutiicon"ihref="assets/img/title.gif"itype="image/x’icon">

iiii<linkirel="stylesheet"ihref="assets/bootstrap/css/bootstrap.min.css">

iiii<linkirel="stylesheet"ihref="http://fonts.googleapis.com/css?family=Roboto">

iiii<linkirel="stylesheet"ihref="assets/css/styles.css">

iiii<linkirel="stylesheet"ihref="assets/css/Google’Style’Login.css">

iiii<linkirel="stylesheet"ihref="assets/css/bootstrap.css">

iiii<linkirel="stylesheet"ihref="assets/css/bootstrap.min.css">

iiii<linkirel="stylesheet"ihref="assets/css/bootstrap’theme.css">

iiii<linkirel="stylesheet"ihref="assets/css/bootstrap’theme.min.css">

iiii<linkirel="stylesheet"ihref="assets/css/Hero’Technology.css">

iiii<linkirel="stylesheet"ihref="assets/css/Mockup’MacBook’Pro.css">

iiii<linkirel="stylesheet"ihref="assets/bootstrap/css/bootstrap.min.css">

iiii<linkirel="stylesheet"ihref="assets/css/styles.css">

iiii<linkirel="stylesheet"ihref="assets/css/Google’Style’Login.css">

</head>

<bodyibackground="assets/img/5.jpg"i>

<divistyle="

iiiifont’family:Nyala,iArial;

iiiitext’align:ileft;i

iiiibackground’color:i#526F35;

iiiipadding:i20px;i

iiiicolor:white;

iiiiwidth:i100%;

iiiiheight:i150px;">

iiii<!’’Thisicodesitoiloaditheiimageiloader’’>i

ii

<!’’thisiisitheiheadingisection’’>iii

iiii<h2>

iiiiiiiiiiii<?php

iiiiiiiiiiii$sql="SELECTi\*iFROMicompanyinfo";

iiiiiiiiiiii$result=mysqli\_query($db,$sql)ioridie("errorigettingidata");

iiiiiiiiiiii$num\_rows=mysqli\_num\_rows($result);

iiiiiiiiiiiiiwhile($row=mysqli\_fetch\_array($result,iMYSQL\_ASSOC))

iiiiiiiiiiiiiiiiiiii{

iiiiiiiiiiiiiiiiiiiiechoi'<imageistyle="height:82px;iwidth:82px;"isrc="data:image;base64,'.i$row['clogo'].'i">i';

iiiiiiiiiiiiiiiiiiii$cnamei=i$row['cname'];

iiiiiiiiiiiiiiiiiiiii$cemaili=i$row['cemail'];

iiiiiiiiiiiiiiiiiiiiii$ccontacti=i$row['ccontact'];

iiiiiiiiiiiiiiiiiiiiiii$clocationi=i$row['clocation'];

iiiiiiiiiiiiiiiiiiii}?>

iiiiiiiiiiiiiiiiiiii<?phpi

iiiiiiiiiiiiiiiiiiiiechoi$cname;

iiiiiiiiiiiiiiiiiiii?>

iiii<divistyle="float:right;ifont’size:20px;text’align:right;">

iiii

iiii<imgisrc="assets/img/mail2.png">Email:i<?phpiiechoi$cemail;i?><br>

iiii<imgisrc="assets/img/call1.png">Contact:<?phpiiechoi$ccontact;i?><br>

iiii<imgisrc="assets/img/location.png">Location:i<?phpiiechoi$clocation;i?>

iiii

iiii</div>i

iii</h2>

</div>

iiii<diviclass="login’card">

iiiiiiii<piclass="profile’name’card">i</p>

iiiiiiii<formiclass="form’signin"iaction="login.php"imethod="POST"ienctype="multipart/form’data"><spaniclass="reauth’email">i</span>

iiiiiiiiiiii<inputiclass="form’control"itype="text"irequired=""iplaceholder="username"iname="username"iautofocus=""iid="username">

iiiiiiiiiiii<inputiclass="form’control"itype="password"irequired=""iplaceholder="Password"iname="password"iid="password">

iiiiiiiiiiii<diviclass="checkbox">

iiiiiiiiiiiiiiii<diviclass="checkbox">

iiiiiiiiiiiiiiiiiiii<label>

iiiiiiiiiiiiiiiiiiiiiiii<inputitype="checkbox">Rememberime</label>

iiiiiiiiiiiiiiii</div>

iiiiiiiiiiii</div>

iiiiiiiiiiii<buttoniclass="btnibtn’primaryibtn’blockibtn’lgibtn’signin"itype="submit"iname="login">Login</button>

iiiiiiii</form><aihref="email.php"iclass="forgot’password">Forgotiyouripassword?</a></div>

iiii<scriptisrc="assets/js/jquery.min.js"></script>

iiii<scriptisrc="assets/bootstrap/js/bootstrap.min.js"></script>

</body>

</html>

**Home.php**

<?php

ob\_start();

include("connect.php");i

include('anaysispage.php');

?>

<!’’\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Analysisidata\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*’’>

<?php

SESSION\_START();

?>

<!DOCTYPEihtml>

<html>

<head>

iiii<metaicharset="utf’8">

iiii<metainame="viewport"icontent="width=device’width,iinitial’scale=1.0">

iiii<title>schoolimanagementisystem</title>

iiii<linkirel="shortcutiicon"ihref="assets/img/title.gif"itype="image/x’icon">

iiii<linkirel="stylesheet"ihref="assets/css/bootstrap.min.css">

iiii<linkihref="assets/css/loader.css"irel="stylesheet"i/>

iiii<scriptisrc="assets/js/canvasjs.min.js"></script>

iiii<!’’\*\*\*\*\*jqueryi’3.2.1.jsifileisupportsitheiuseiofidropdown\*\*\*’’>

iiii<scriptisrc="assets/js/jquery’3.2.1.js"></script>

<scriptitype="text/javascript">

variclass1=<?phpiiechoi$class1;i?>;

variclass2=<?phpiiechoi$class2;i?>;

variclass3=<?phpiiechoi$class3;i?>;

variclass4=<?phpiiechoi$class4;i?>;

variclass5=<?phpiiechoi$class5;i?>;

variclass6=<?phpiiechoi$class6;i?>;

variclass7=<?phpiiechoi$class7;i?>;

variclass8=<?phpiiechoi$class8;i?>;

window.onloadi=ifunctioni()i{

iiiivaricharti=inewiCanvasJS.Chart("chartContainer",i{

iiiiiiiititle:{

iiiiiiiiiiiitext:i"Numberiofistudents"i

iiiiiiii},

iiiiiiiidata:i[iiiiiiiiiiiiii

iiiiiiii{

iiiiiiiiiiii//iChangeitypeitoi"doughnut",i"line",i"splineArea",ietc.

iiiiiiiiiiiitype:i"spline",

iiiiiiiiiiiidataPoints:i[

iiiiiiiiiiiiiiii{ilabel:i"Formi1",iiy:iclass1ii},

iiiiiiiiiiiiiiii{ilabel:i"Formi2",iy:iclass2ii},

iiiiiiiiiiiiiiii{ilabel:i"Formi3",iy:iclass3ii},

iiiiiiiiiiiiiiii{ilabel:i"Formi4",iiy:iclass4ii},

iiiiiiiiiiii]

iiiiiiii}

iiiiiiii]

iiii});

iiiichart.render();

}

</script>

</head>

<!’’<styleitype="text/css">

iiiibody{

iiiiiiiimargin’right:i10px;

iiiiiiiimargin’left:i10px;

iiiiiiii}

</style>

‘‘>

<styleitype="text/css">

ii.panel’success{

iiiibackground’color:irgba(245,i245,i245,i0);

iiiiborder:none;

ii}

</style>

<bodyibackground="assets/img/5.jpg"i>

<!’’endiofiheadingisection’’>i

<uliclass="navinavbar’rightitop’nav">iiiiiiiiiiiiiiiiiiiiiiii

iiii<diviclass="dropdown">

ii<buttoniclass="btnibtn’primaryidropdown’toggle"itype="button"idata’toggle="dropdown"i>

ii<?php

iiiiiiii//Checkitoiseeiifitheiuseriisiloggediin.ifinotiredirectiuseritoitheilogingipage.

iiiiiiii

iiiiiiiiif(isset($\_SESSION['fname']))

iiiiiiii{i

iiiiiiiiechoiii"Currentiuser:i".$\_SESSION['fname'].i"&nbsp;".$\_SESSION['lname'].i"i";

iiiiiiii$adm=$\_SESSION['role'];

iiiiiiii}else{

iiiiiiiiiiechoi"<scriptitype='text/javascript'>

iiiiiiiiiiiiiiiiiiiialert(i'YouimustiLogiinitoiuseitheisystem');

iiiiiiiiiiiiiiiiiiii</script>";

iiiiiiiiiiiiiiiiechoi"<script>

iiiiiiiiiiiiiiiiiiiiwindow.locationi=i'index.php'

iiiiiiiiiiiiiiiiii</script>";

iiiiiiii}

iiiiiiii?>

ii<spaniclass="caret"></span></button>

ii<uliclass="dropdown’menu">

iiiiii<li><aihref="manage\_account.php"><iiclass="faifa’usersifa’lg"></i>&nbsp;ViewiUser</a></li>

iiiiii<li><aihref="register\_form.php"><iiclass="faifa’usersifa’lg"></i>&nbsp;AddiNewiUser</a></li>

iiiiii<liiclass="divider"></li>

iiiiii<li><aihref="session\_logout.php"><iiclass="faifa’fwifa’power’off"></i>&nbsp;LogiOut</a></li>

ii</ul>

</div>

ii</ul>

<!’’\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*’’>

<divistyle="

iiiifont’family:Nyala,iArial;

iiiitext’align:ileft;i

iiiibackground’color:i#526F35;

iiiipadding:i20px;i

iiiicolor:white;

iiiiwidth:i100%;

iiiiheight:i150px;">

iiii<!’’Thisicodesitoiloaditheiimageiloader’’>i

iiii<diviid="loading">

iiiiiiiiiiii<imgiid="loading’image"isrc="assets/img/loader.gif"ialt="Loading..."i/>

iiii</div>

<!’’thisiisitheiheadingisection’’>iii

iiii<h2>

iiiiiiiiiiii<?php

iiiiiiiiiiii$sql="SELECTi\*iFROMicompanyinfo";

iiiiiiiiiiii$result=mysqli\_query($db,$sql)ioridie("errorigettingidata");

iiiiiiiiiiii$num\_rows=mysqli\_num\_rows($result);

iiiiiiiiiiiiiwhile($row=mysqli\_fetch\_array($result,iMYSQL\_ASSOC))

iiiiiiiiiiiiiiiiiiii{

iiiiiiiiiiiiiiiiiiiiechoi'<imageistyle="height:82px;iwidth:82px;"isrc="data:image;base64,'.i$row['clogo'].'i">i';

iiiiiiiiiiiiiiiiiiii$cnamei=i$row['cname'];

iiiiiiiiiiiiiiiiiiiii$cemaili=i$row['cemail'];

iiiiiiiiiiiiiiiiiiiiii$ccontacti=i$row['ccontact'];

iiiiiiiiiiiiiiiiiiiiiii$clocationi=i$row['clocation'];

iiiiiiiiiiiiiiiiiiii}?>

iiiiiiiiiiiiiiiiiiii<?phpi

iiiiiiiiiiiiiiiiiiiiechoi$cname;

iiiiiiiiiiiiiiiiiiii?>

iiii<divistyle="float:right;ifont’size:20px;text’align:right;">

iiii

iiii<imgisrc="assets/img/mail2.png">Email:i<?phpiiechoi$cemail;i?><br>

iiii<imgisrc="assets/img/call1.png">Contact:<?phpiiechoi$ccontact;i?><br>

iiii<imgisrc="assets/img/location.png">Location:i<?phpiiechoi$clocation;i?>

iiii

iiii</div>i

iii</h2>

</div>

iiii<div>

iiiiiiii<uliclass="navinav’tabs">

iiiiiiiiiiii<liiclass="active"><aihref="homepage.php"i>Administrationi<imgisrc="assets/img/details.png"></a></li>

iiiiiiiiiiii<lii><aihref="students.php"i>Studentsi<imgisrc="assets/img/student48.png"></a></li>

iiiiiiiiiiii<li><aihref="staff.php">StaffiMemberi<imgisrc="assets/img/staff48.png"></a></li>

iiiiiiiiiiii<li><aihref="course.php"i>Coursesi<imgisrc="assets/img/course.png"></a></li>

iiiiiiiiiiii<li><aihref="departments.php"i>Departmentsi<imgisrc="assets/img/department.png"></a></li>

iiiiiiiiiiii<li><aihref="markstep1.php"i>Examsi<imgisrc="assets/img/update.png"></a></li>

iiiiiiiiiiii<li><aihref="hostel.php"i>Hostel[<i>Premium</i>]i<imgisrc="assets/img/details.png"></a></li>

iiiiiiiiiiii<li><aihref="sms.php">SMSi<imgisrc="assets/img/details.png"></a></li>

iiiiiiiiiiii<!’’<li><aihref="tab’8"irole="tab"idata’toggle="tab">Hosteli<imgisrc="assets/img/details.png"></a></li>

iiiiiiiiiiii<li><aihref="tab’7"irole="tab"idata’toggle="tab">Parentsi<imgisrc="assets/img/details.png"></a></li>‘‘>

iiiiiiiiiiii

iiiiiiii</ul>

iiiiiiii<diviclass="tab’content">

iiiiiiiiiiii<diviclass="tab’paneiactive"irole="tabpanel"iid="tab’1">

iiiiiiiiiiiiiiii

iiiiiiiiiiiiiiii<p>

iiiiiiiiiiiiiiiiiiii<diviclass="table’responsive"ii>

<!’’\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*’’>

iiiiiiiiiiiiiiiiiiiiiiii

iiiiiiiiiiiiiiiiiiiiiiii

ii<!’’\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*’’>

<divi><h4>

<tableiclass="table"istyle="text’align:center"i>

iii<tri>

iiiiiii

iiiiiii<tdi>

iiii<diviclass="panelipanel’success">

iiiiii<diviclass="panel’heading">Students</div>

iiiiiiii<diviclass="panel’body">

iiiiiii

iiiiiii<fonticolor="red">

iiiiiiiiiiii<?php

iiiiiiiiiiii$sql="SELECTi\*iFROMistudentstable";

iiiiiiiiiiii$result=mysqli\_query($db,$sql)ioridie("errorigettingidata");

iiiiiiiiiiii$num\_rows=mysqli\_num\_rows($result);

iiiiiiiiiiiiiechoi"$num\_rowsiStudent[s]ifound</font><br>";

iiiiiiiiiiiiiechoi"<aihref='viewstudentrecord.php'>Viewistudents";

iiiiiiiiiiiiiechoi"||i<br>";

iiiiiiiiiiiiiechoi"<aihref='displine.php'>RecordiDisplinaryicasei</a>";

iiiiiiiiiiiiiechoi"||";

iiiiiiiiiiiiiechoi"<aihref='m1.php'>Monitoristudenti</a>";

iiiiiiiiiiiii?><br>

iiiiiiiiiiiii<?php

iiiiiiiiiiii$sql="SELECTi\*iFROMistudentstableiWHEREigender='female'";

iiiiiiiiiiii$result=mysqli\_query($db,$sql)ioridie("errorigettingidata");

iiiiiiiiiiii$num\_rows=mysqli\_num\_rows($result);

iiiiiiiiiiiiiechoi"$num\_rowsiFemaleiStudents</font>";i

iiiiiiiiiiiii?>

iiiiiiiiiiiii<imgisrc="assets/img/students.png">

iiiiiiiiiiiii<?php

iiiiiiiiiiii$sql="SELECTi\*iFROMistudentstableiWHEREigender='male'";

iiiiiiiiiiii$result=mysqli\_query($db,$sql)ioridie("errorigettingidata");

iiiiiiiiiiii$num\_rows=mysqli\_num\_rows($result);

iiiiiiiiiiiiiechoi"$num\_rowsiMaleiStudents</font>";

iiiiiiiiiiiii?>

iiiiiiiiiiiii</font>

iiiiiiiiiiiii<imgisrc="assets/img/students.png">

iiiiiii</div>

iiiiiii</td>

iiiiiii

iiiiiii<td>

iiiiii<diviclass="panelipanel’success"i>

iiiiiiii<diviclass="panel’heading">Staff/Office</div>

iiiiiiiiii<diviclass="panel’body">iiiii

iiiiiiiiiiiiiiii<aihref="viewstaff.php"i>ViewiStaffs<br>

iiiiiiiiiiiiiiii<aihref="viewstaff.php"i>Recomendationiletter<br>

iiiiiiiiiiiiiii

iiiiiiiii</div>i

iiiiiiii</td>

iiiiiii<td>

iiii<diviclass="panelipanel’success">

iiiiii<diviclass="panel’heading">Communication</div>

iiiiiiiiii<diviclass="panel’body">

iiiiiii<aihref="sms.php"i>Bulkisms<br><imgisrc="assets/img/sms.png"></a><br>

<!’’\*\*\*wheniiiclickiailinkitoigetiaiconfirmationiwheathertitoicontinueiofinot’’>

iiiiiii<scriptitype="text/javascript">

iiiiiiiiiiiiiifunctioniAlertIt()i{

iiiiiiiiiiiiiivariansweri=iconfirmi("PleaseiclickioniOKitoicontinue.")

iiiiiiiiiiiiiiifi(answer)

iiiiiiiiiiiiiiwindow.location="http://www.continue.com";

iiiiiiiiiiiiii}

iiiiii</script>

<!’’\*\*\*wheniiiclickiailinkitoigetiaiconfirmationiwheathertitoicontinueiofinot’’>

i<!’’iiiiii<aihref="javascript:AlertIt();">BulkiEmails</a>i’’>

iiiiiii<aihref="register\_form.php">SystemiUsers<br><imgisrc="assets/img/users.png"></a>

iiiiiii</div>

iiiiiii</td>

iii</tr>i

iii<tr>

iiiiiii<tdi>

iiii<diviclass="panelipanel’success">

iiiiii<diviclass="panel’heading">Accounting</div>

iiiiiiii<diviclass="panel’body">

iiiiiiiiiiiiiiiiii<?php

iiiiiiiiiiiiiiiiiiiifi($\_SESSION['role']!="adm"){

iiiiiiiiiiiiiiiiiiii$error="ThisiisiaiPremiumimodule";

iiiiiiiiiiiiiiiiiii}else{

iiiiiiiiiiiiiiiiiiii$password=$\_SESSION['password'];

iiiiiiiiiiiiiiiiiii}

iiiiiiiiiiiiiiiiii?>

ii<!’’issuesiwithipaymentiareisensitiveiandithereforeineediapproaiteiapprovalibeforeiediting’’>

iiiiiiiiiiiiiiiiii<script>

iiiiiiiiiiiiiiiiiifunctionimyFunction()i{iiiiiiiiii

iiiiiiiiiiiiiiiiiiiiiivaripersoni=prompt("Pleaseiconfirmiyouripassword");

iiiiiiiiiiiiiiiiiiiii

iiiiiiiiiiiiiiiiiiiiiiifi(personi=="<?phpiiechoi$password;i?>")i{

iiiiiiiiiiiiiiiiiiiiiiiiiitxti=i"Welcomeitoitheifeeimodule";

iiiiiiiiiiiiiiiiiiiiiiiiiiwindow.location="feestudents.php";

iiiiiiiiiiiiiiiiiiiiii}ielsei{

iiiiiiiiiiiiiiiiiiiiiiiiivaritxti="Youiareinotialloweditoiaccessithisimodule";

iiiiiiiiiiiiiiiiiiiiiiiiiialert(txt);

iiiiiiiiiiiiiiiiiiiiii}

iiiiiiiiiiiiiiiiii}

iiiiiiiiiiiiiiiiii</script>

<!’’issuesiwithipaymentiareisensitiveiandithereforeineediapproaiteiapprovalibeforeiediting’’>

i[Premium]

iiiiiii<aihref="javascript:myFunction();">AccountsiManagement<imgisrc="assets/img/fee.png"></a><br>

iiiiii

iiiiiii<aihref="#">Expectedifee</a><imgisrc="assets/img/new.png"></a><br>

iiiiiii<aihref="#">Expences</a><imgisrc="assets/img/expence2.png"></a><br>

iiiiiii

iiiiii<!’’i<aihref="printfeeinvoice.php">PrintiInvoice<imgisrc="assets/img/print2.png"></a>‘‘>

iiiiiii</div>

iiiiiii</td>

iiiiiii<td>

iiiiii<diviclass="panelipanel’success">

iiiiiiii<diviclass="panel’heading">AdvancediStudentsimanagement</div>

iiiiiiiiii<diviclass="panel’body">

iiiiii

iiiiiiiiiiiiiiiiii<script>

iiiiiiiiiiiiiiiiiifunctionimyFunction2()i{iiiiiiiiiiiiiiii

iiiiiiiiiiiiiiiiiiiiiivaripersoni=iprompt("Pleaseiconfirmiyouripassword");

iiiiiiiiiiiiiiiiiiiiiiifi(personi=="<?phpiiechoi$password;i?>")i{

iiiiiiiiiiiiiiiiiiiiiiiiiitxti=i"WelcomeitoitheiPromotionimodule";

iiiiiiiiiiiiiiiiiiiiiiiiiiwindow.location="pro1.php";

iiiiiiiiiiiiiiiiiiiiii}ielsei{

iiiiiiiiiiiiiiiiiiiiiiiiivaritxti="Youiareinotialloweditoiaccessithisimodule";

iiiiiiiiiiiiiiiiiiiiiiiiiialert(txt);

iiiiiiiiiiiiiiiiiiiiii}

iiiiiiiiiiiiiiiiii}

iiiiiiiiiiiiiiiiii</script>[Premium]

iiiiii<aihref="javascript:myFunction2();">Promote/Dispute/Transferistudent<br><imgisrc="assets/img/promote.png"></a>

iiiiiii</div>

iiiiiii</td>

iiiiiii<td>

iiiiii<diviclass="panelipanel’success">

iiiiiiii<diviclass="panel’heading">Parent/Guardians</div>

iiiiiiiiii<diviclass="panel’body">

ii<aihref="parents.php">ViewiList<br></a>

iiiiiii</div>

iiiiiii</td>

iii</tr>

iii<tr>

iiiiiiiiiiiiiiiiii<script>

iiiiiiiiiiiiiiiiiifunctionimyFunction3()i{iiiiiiiiiiiiiiii

iiiiiiiiiiiiiiiiiiiiiivaripersoni=iprompt("Pleaseiconfirmiyouripasswordibeforeiaccessingithisimodule");

iiiiiiiiiiiiiiiiiiiiiiifi(personi=="<?phpiiechoi$password;i?>")i{

iiiiiiiiiiiiiiiiiiiiiiiiiitxti=i"WelcomeitoitheiCompanyimodule";

iiiiiiiiiiiiiiiiiiiiiiiiiiwindow.location="companyinfo.php";

iiiiiiiiiiiiiiiiiiiiii}ielsei{

iiiiiiiiiiiiiiiiiiiiiiiiivaritxti="Youiareinotialloweditoiaccessithisimodule";

iiiiiiiiiiiiiiiiiiiiiiiiiialert(txt);

iiiiiiiiiiiiiiiiiiiiii}

iiiiiiiiiiiiiiiiii}

iiiiiiiiiiiiiiiiii</script>

iiiiiii<td>

iiiiii<diviclass="panelipanel’success">

iiiiiiii<diviclass="panel’heading">CompanyiInformation</div>

iiiiiiiiii<diviclass="panel’body">

iiiiiiiiii[Premium]

iiiiiiiiii<aihref="javascript:myFunction3();"i>CompanyiInfo<imgisrc="assets/img/info.png"></a><br>

iiiiiiiiii<aihref="backup\_tables.php"i>BackiUpidatabase<imgisrc="assets/img/backup.png"></a>

iiiiiii</div>

iiiiiii</td>

iiiiiii<td>

iiiiiii<diviclass="panelipanel’success">

iiiiiiii<diviclass="panel’heading">Inventory</div>

iiiiiiiiii<diviclass="panel’body">

iiiiiiiiii

iiiiiiiiii<aihref="inventory.php">Inventoryi</a>

iiiiiii</div>

iiiiiii</td>

iiiiiii

iii</tr>

ii</table></h4></div>

ii<!’’\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*’’>ii

iiii<diviclass="col’md’12"istyle="background’color:#526F35;iposition:fixed;bottom:0px;">

iiiiiiii<piclass="text’centeritext’danger"istyle="color:white;"i>@iAkandeiAdewaleiKamorudeeni||iMatriciNo:iNOU182019614</p>

iiii</div>

iiii<scriptisrc="assets/js/jquery.min.js"></script>

iiii<scriptisrc="assets/js/affix.js"></script>

iiii<scriptisrc="assets/js/alert.js"></script>

iiii<scriptisrc="assets/js/alert1.js"></script>

iiii<scriptisrc="assets/js/bootstrap.js"></script>

iiii<scriptisrc="assets/js/bootstrap.min.js"></script>

iiii<scriptisrc="assets/js/bootstrap’datepicker.js"></script>

iiii<scriptisrc="assets/js/bootstrap’wysihtml5.js"></script>

iiii<scriptisrc="assets/js/button.js"></script>

iiii<scriptisrc="assets/js/carousel.js"></script>

iiii<scriptisrc="assets/js/chosen.jquery.min.js"></script>

iiii<scriptisrc="assets/js/ckeditor.js"></script>

iiii<scriptisrc="assets/js/collapse.js"></script>

iiii<scriptisrc="assets/js/color.js"></script>

iiii<scriptisrc="assets/js/dropdown.js"></script>

iiii<scriptisrc="assets/js/DT\_bootstrap.js"></script>

iiii<scriptisrc="assets/js/dynamic.js"></script>

iiii<scriptisrc="assets/js/ie’emulation’modes’warning.js"></script>

iiii<scriptisrc="assets/js/jquery.dataTables.js"></script>

iiii<scriptisrc="assets/js/jquery.dataTables.min.js"></script>

iiii<scriptisrc="assets/js/jquery.dialog.js"></script>

iiii<scriptisrc="assets/js/jquery.hoverdir.js"></script>

iiii<scriptisrc="assets/js/jquery.jgrowl.js"></script>

iiii<scriptisrc="assets/js/jquery.knob.js"></script>

iiii<scriptisrc="assets/js/jquery.uniform.min.js"></script>

iiii<scriptisrc="assets/js/jquery’1.8.3.min.js"></script>

iiii<scriptisrc="assets/js/jquery’1.9.1.js"></script>

iiii<scriptisrc="assets/js/jquery’1.9.1.min.js"></script>

iiii<scriptisrc="assets/js/jquery’1.10.2.js"></script>

iiii<scriptisrc="assets/js/jquery’1.11.0.js"></script>

iiii<scriptisrc="assets/js/jquery’ui’1.9.2.custom.min.js"></script>

iiii<scriptisrc="assets/js/jquery’ui’1.10.3.js"></script>

iiii<scriptisrc="assets/js/modal.js"></script>

iiii<scriptisrc="assets/js/modernizr’2.6.2’respond’1.1.0.min.js"></script>

iiii<scriptisrc="assets/js/myjquery.js"></script>

iiii<scriptisrc="assets/js/myjquery1.js"></script>

iiii<scriptisrc="assets/js/npm.js"></script>

iiii<scriptisrc="assets/js/popover.js"></script>

iiii<scriptisrc="assets/js/profile.js"></script>

iiii<scriptisrc="assets/js/raphael’min.js"></script>

iiii<scriptisrc="assets/js/sb’admin’2.js"></script>

iiii<scriptisrc="assets/js/scripts.js"></script>

iiii<scriptisrc="assets/js/scrollspy.js"></script>

iiii<scriptisrc="assets/js/tab.js"></script>

iiii<scriptisrc="assets/js/tooltip.js"></script>

iiii<scriptisrc="assets/js/transition.js"></script>

iiii<scriptisrc="assets/js/wysihtml5’0.3.0.js"></script>

iiii<scriptisrc="assets/js/slideshow.js"></script>

iiii<scriptilanguage="javascript"itype="text/javascript">

iiiii$(window).load(function()

iiiiii{

iiiiiiii$('#loading').hide();

iiiiii});

</script>

<script>

$(document).ready(function(){

ii$('.dropdown’submenuia.test').on("click",ifunction(e){

iiii$(this).next('ul').toggle();

iiiie.stopPropagation();

iiiie.preventDefault();

ii});

});

</script>

</body>

</html>