CHAPTER-1

INTRODUCTION

1.1 Introduction

The purpose of Online Learning and Performance Analyzer is to learn online, give online examination and analyze the candidate's performance in an efficient and effective way. We provide categorized study materials or notes for candidates to gain knowledge and test their competence level and can work on the same by the suggested tests and notes. The faculties will be providing the descriptive solutions for the questions of test paper, which will be accessible to the candidate after the submission of tests. The question/answer forum is useful for solving problems of the candidates, as it is an interactive platform between the candidate and the faculty for the doubt clearing session in all aspects of categories.

In this project we provide a system based online learning platform where the student can learn online with the help of study material and give categorized online test. After the completion of test the score card is automatically generated and students will be able to access the descriptive answers of given test after submission of test and they can view their performance through performance analyzer graph that will be generated on user's requirement. On the basis of their performance, students can access recommended study materials and also give the recommended test so that students easily improve their performance.

In this project we are providing separate section that is "Question/Answer forum" where the student can ask their queries and faculties give those answers and there is also a provision where the student can answer the query with a prior verification by the admin. We are also providing another section that is "news feed", this section gives technical updates or MNCs (Multi National Companies) updates. Students can give the feedback through the feedback form.

1.2 Problem Statement:

In the existing system, the candidates do not get a complete learning surface. The systems include the tests and respective results but a wholesome analysis is not assured, as they do not provide any trend in how the student is building up their knowledge. There is also a need to get acquainted with the regular performance of the candidate. A student is unable to figure out his/her weakness and strengths, as these sections are not specified in the existing system. An up-to-date technical information is not achieved.

1.3 Need for the new system

- 1. It provides distance learning.
- 2. It is a complete environment which focuses on overall student development.

- 3. It also provides student and faculty interaction thus generating interactive outcomes.
- 4. Flexibility and security for question paper as each student can get random questions of same exam pattern.
- 5. The new system is capable of generating graphs to strengthen candidate's performance.

1.4 Objective:

The main objective of the proposed system is that we are providing complete learning environment. It is a complete package where we can learn, give test, as well as get acquainted with our performance by means of graphs. Following are the objectives of our proposed system:

- The system comprises of different modules which is available for the candidates.
- We provide various categorized study materials for the knowledge gain of the system's users.
- This system also aims to make the students reachable to the latest industrial updates.
- The recommendations and suggestions are helpful to the students in overcoming their incapabilities.
- The questionnaires are useful in query resolution of students.
- The system aims to flexibly analyze oneself by performance analyzing graphs.

1.5 Modules of the System:

The system comprises of various features. Some of the main features of this projects are:

- Study materials
- Descriptive Solution of Tests
- Performance Analyzing Graphs
- Q/A Forum
- Recommended ideas for improvement
- News Feed (Latest Technology & MNC updates)
- Feedback Form

In the proposed system we have three modules namely Administration module, Faculty module and Student module. The following are the basic roles specified by each module:

Admin:

- Control the activities of student and faculty
- Upload study material and Test

- Modifications in system
- Provide Technical Updates

Faculty:

- Design Questionnaires
- Answer queries in Q/A forum
- Access Study Material (optional)
- Can Give Test (optional)

Student:

- Access Study Materials
- View performance graphs
 - a) Weak Sections
 - b) Strong Sections
 - c) Recommendations
- Give Test
- Ask Questions and View replies on Q/A forum

1.6 Scope

- This web based application can be used in educational institutions as well as in corporate world.
- No manual work of preparing and storing the result information.
- Less time consumptions, the result calculated immediately after the test and displayed.
- The system handles all the operations, and generates reports as soon as the test finishes; it includes performance graph, feedback form, Q/A forum, recommendation and suggestion and study material.
- Allow students to see answers after the submission of test.
- Not only education but also the system focuses on performance improvisation of the candidate.

CHAPTER - 2

LITERATURE SURVEY

2.1 Existing System

The existing system consists of various prones which need to be overcome to build up an effective system which will be more functional than the available system. Hence we aim at increasing the scope of the existing system, with the use of advanced technologies.

Here, the candidates do not get a complete learning surface. The systems include the tests and respective results but a wholesome analysis is not assured, as they do not provide any trend in how the student is building up their knowledge. A student is unable to figure out his/her weakness and strengths, as these sections are not specified in the existing system. An up-to-date technical information is not achieved.

So we are concerned about the difficulties that are present in this system and hence encompasses to make it more improvised and functionally enlarged system.

2.2 Proposed System

There are many problems in existing system. So in the proposed system we are providing complete environment. It is a complete package where we can learn, give test, as well as get acquainted with our performance by means of graphs.

The tests are categorized and is so designed that the candidate access the correct answers after the submission of tests, and can view the description and refer that particular section of study material or notes.

An automated score card and graph is generated showing the performance and suggestions for students.

The question answer forum is very useful for the candidates as it ruptures the major drawback of non-interaction between the candidate and faculty. In this way the candidates' queries are resolved in a better and efficient manner.

2.3 Feasibility Study

A feasibility study is an analysis of how successfully a project can be completed, accounting for factors that affect it such as economic, technological, legal and scheduling factors. Project managers use feasibility studies to determine potential positive and negative outcomes of a project before investing a considerable amount of time and money into it.

2.3.1 Technical Feasibility

A study of resource availability that may affect the ability to achieve an acceptable system. Technical feasibility is the most difficult area to ensure at initial stage. Since the objectives, functions, performance cannot be predicted to its fullest, everything seems possible, provided the right assumptions are made.

It is essential that the process of analysis and definition can be conducted in parallel with an assessment of technical feasibility. The consideration that is normally associated with technical feasibility includes resource availability at the organization where the project is to be developed and implemented.

All the projects are feasible, given unlimited resources and infinite time. We were equipped with limited resources and limited time, but our project is having guaranteed feasibility since we were able to evaluate the feasibility at the earliest possible time. However during the development of our project we concentrated on the following feasibility:

1. Resource Availability:

Are the hardware and software required, available to develop the application? Hardware and software resources were completely available to us.

2. Technology:

Has the relevant technology progressed to stage that will support the system? Our project uses JSP, Servlet etc. We need the following resources:

- i. Pentium IV or above
- ii. 256 RAM or above
- iii. Win 2000 server/NT/XP Client
- iv. Tomcat 6.0/Glassfish Version 3.0
- v. J2SE Development Kit 5.0
- vi. J2SE Runtime Environment 5.0

The technical requirements are available to us. Thus our project is technically feasible.

2.3.2 Economical Feasibility

The resources that we use for our project are readily available. The help is freely available. So our project is economically feasible.

The cost of our project is the total cost of all peripherals like monitor, keyboard, mouse, processor, memory and printing.

Also the cost of certain software could be added which are easily available and their requirement is only for the server. The editors are also available on the internet thus from economic point of view our project does not require a lot of monetary inputs.

2.3.3 Operational Feasibility

It deals with the consideration about working of the system after installation. The proposed system would be beneficial to its users as their needs are fully satisfied. As this project

satisfies all the requirements of the users it is operationally feasible. All the operational aspects are considered carefully here. Only by spending tie to evaluate feasibility we will be able to reduce the chances for extreme embracement at later stages of a project.

The benefits of proposed system are:

- Ability to handle large amount of a data
- Fast and accurate information is possible
- Security features based on user roles
- Easy Report generation

Thus, considering the above facts management felts that the project is feasible.

CHAPTER - 3

REQUIREMENTS ANALYSIS

3.1 Method used for Requirement analysis

Requirements analysis in systems engineering and software engineering, encompasses those tasks that go into determining the needs or conditions to meet for a new or altered product, taking account of the possibly conflicting requirements of the various stakeholders, such as beneficiaries or users.

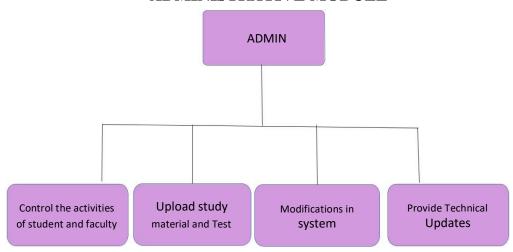
Requirements analysis is critical to the success of a development project. Requirements must be actionable, measurable, testable, related to identified business needs or opportunities, and defined to a level of detail sufficient for system design. Requirements can be functional and non-functional.

3.2 Data Requirements

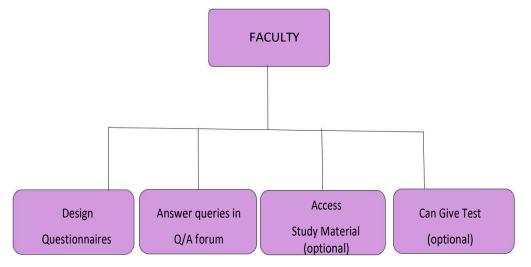
The data requirements mainly presides over the requirement of the system relevant to its data. In this project, there is a requirement of the data which helps us to analyze what kind of system is going to be developed. Data plays a vital role in order to develop a meaningful and effective project which will be bind to the user's basic requirements. Along with the specified requirements, we also establish some new features which can be introduced in the proposed system to increase its value and functionality. We can figure out the need of our system by the means of studying and analyzing the existing systems and add the new features in our proposed system to make it more enhanced and newer version of the already available project, keeping in mind the requirements specified by the clients.

3.3 Functional Requirements

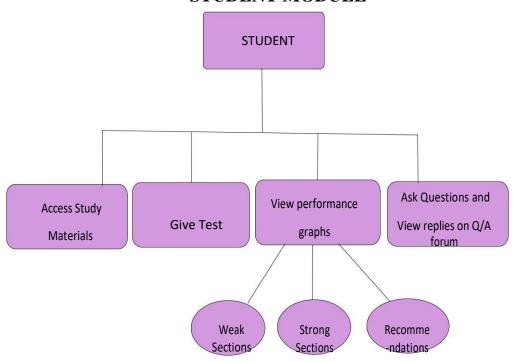
ADMINISTRATIVE MODULE



FACULTY MODULE



STUDENT MODULE



3.4 Non - Functional Requirements

3.4.1 Performance requirements

Some Performance requirements identified is listed below:

• The database shall be able to accommodate a minimum of 10,000 records of students.

- The software shall support use of multiple users at a time.
- There are no other specific performance requirements that will affect development.

3.4.2 Safety Requirements

The database may get crashed at any certain time due to virus or operating system failure. Therefore, it is required to take the database backup.

3.4.3 Security Requirements

Some of the factors that are identified to protect the software from accidental or malicious access, use, modification, destruction, or disclosure are described below.

- Keep specific log or history data sets
- Assign certain functions to different modules
- Restrict communications between some areas of the program
- Check data integrity for critical variables
- Later version of the software will incorporate encryption techniques in the user/license authentication process.
- Communication needs to be restricted when the application is validating the user or license.

3.5 System Specification

3.5.1 Hardware Specification

Client Side-

• Browser Any

Browser.

Processor

Pentium 2.0 and above

RAM

256 MB.

Server Side-

Processor

Pentium 2.0 and above

RAM

2 GB (minimum)

Hard Disk Space

4 GB (minimum)

3.5.2 Software Specification

Software Requirements deal with defining software resource requirements and pre-requisites that need to be installed on a computer to provide optimal functioning of an application. These requirements or pre-requisites are generally not included in the software installation package and need to be installed separately before the software is installed.

• Platform

Windows 7 and above

• Operating System

Windows XP and others

• Front End

NetBeans 8.0 and above

• Back End

MySQL

Browser

Internet Explorer and others.

CHAPTER - 4

DESIGN

4.1 Software Requirements Specification

A software requirements specification (SRS) is a description of a software system to be developed. It lays out functional and non-functional requirements, and may include a set of use cases that describe user interactions that the software must provide.

Software requirements specification establishes the basis for an agreement between customers and contractors or suppliers (in market-driven projects, these roles may be played by the marketing and development divisions) on what the software product is to do as well as what it is not expected to do. Software requirements specification permits a rigorous assessment of requirements before design can begin and reduces later redesign. It should also provide a realistic basis for estimating product costs, risks, and schedules. Used appropriately, software requirements specifications can help prevent software project failure.

The software requirements specification document enlists enough and necessary requirements that are required for the project development. To derive the requirements, the developer needs to have clear and thorough understanding of the products to be developed or being developed. This is achieved and refined with detailed and continuous communications with the project team and customer till the completion of the software.

4.1.1 Glossary

Administrator:

Administrator is the person who controls the overall system. He is responsible for any kind of major change in the system, which results in the versioning of the project and adding it more functionality. He manages the activities of Faculty and Student. He is the one who will grant permissions to the system's users for performing their tasks.

Faculty:

Faculty is the system's user who can register in the system and then they will be able to access study materials, create tests, and can view news feed and give the feedback form. They are the one who are supposed to give answers of the queries asked by the students in the question/answer forum.

Student:

There exists another user of the system called as Student. They require registration and then they perform login. Now after login they can perform different activities like accessing

the study material, give test and analyze their performance using graphs. They can also ask their queries in the Q/A forum and fill feedback form as well as view technical updates regarding the industries.

4.1.2 Supplementary Specifications

Objective:

The main aim behind the development of this software is to provide a safe, secure, faster, easier and more orderly way of carrying out the various activities which are done in Online Learning & Performance Analyzer.

The idea for such a service comes from the fact that keeping a manual account of these things is a tedious job, takes a lot of time to maintain and also to go through. If we design such a system where all the work is automated through the software and all the data is stored systematically in a database then the amount of manual work and the time required may be reduced and it would ensure easy and more orderly maintenance. Also at the same time records could be safeguarded against unauthorized access through access privileges. Hence the system will be more beneficial to us in terms of performance analyzing also.

Scope:

The scope of this project is not only limited to online examination but also it provides a wholesome platform which is required for the overall development of the system. This proposed system promotes distance learning in a well-organized way by providing different kinds of study materials. It also helps by giving technical updates thus increasing the technical knowledge according to the current scenario.

- This web based application can be used in educational institutions as well as in corporate world.
- No manual work of preparing and storing the result information.
- Less time consumptions, the result calculated immediately after the test and displayed.
- The system handles all the operations, and generates reports as soon as the test finishes; it includes performance graph, feedback form, Q/A forum, recommendation and suggestion and study material.
- Allow students to see answers after the submission of test.
- Not only education but also the system focuses on performance improvisation of the candidate.

Functionality:

- Easy for an individual to analyze their knowledge.
- It provide the students with a flexible learning environment from any location.
- Ability to maintain a flexible schedule.
- Students are not dependent on any institute.
- Get latest technical updates.

• Easy to conduct a test and generate quick and automated result.

Usability:

- Online learning web application
- Educational institutions
- Corporate world
- Distance learning and analysis

Reliability:

The software is reliable. It is being developed as a three tier web application and can be deployed on any platform.

Performance:

The performance of the software is measured in terms of case of maintaining information in the database both efficiently and economically.

Supportability:

This software is supportable on any platform with java and tomcat compatibility.

Security:

Since the plan is to deploy the server component of project on different platform so there are the possibility of various threats .So, different security strategies are provided in the system for Administrator and Faculty.

4.1.3 Use Case Model

In software and systems engineering, a **use case** is a list of actions or event steps typically defining the interactions between a role (known in the Unified Modeling Language as an *actor*) and a system to achieve a goal. The actor can be a human or other external system. In systems engineering use cases are used at a higher level than within software engineering often representing missions or stakeholder goals. The detailed requirements may then be captured in the Systems Modeling Language (SysML) or as contractual statements.

The Use Case Model describes the proposed functionality of the new system. A Use Case represents a discrete unit of interaction between a user (human or machine) and the system. A Use Case is a single unit of meaningful work; for example login to system, register with system and create order are all Use Cases. Each Use Case has a description which describes the functionality that will be built in the proposed system. A Use Case may 'include' another Use Case's functionality or 'extend' another Use Case with its own behavior.

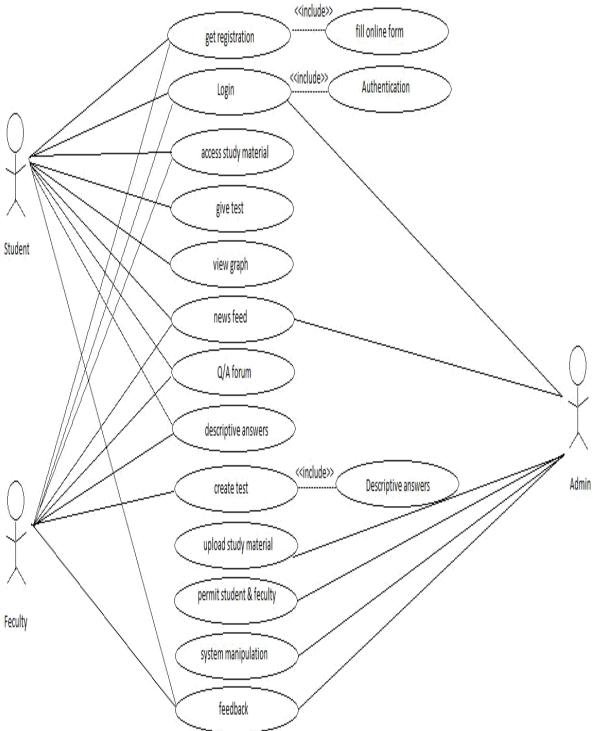


Fig- Use Case Diagram

4.2 Conceptual Level Class Diagram

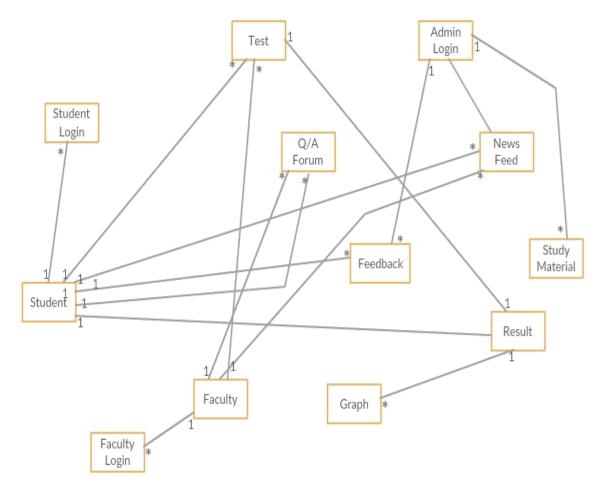
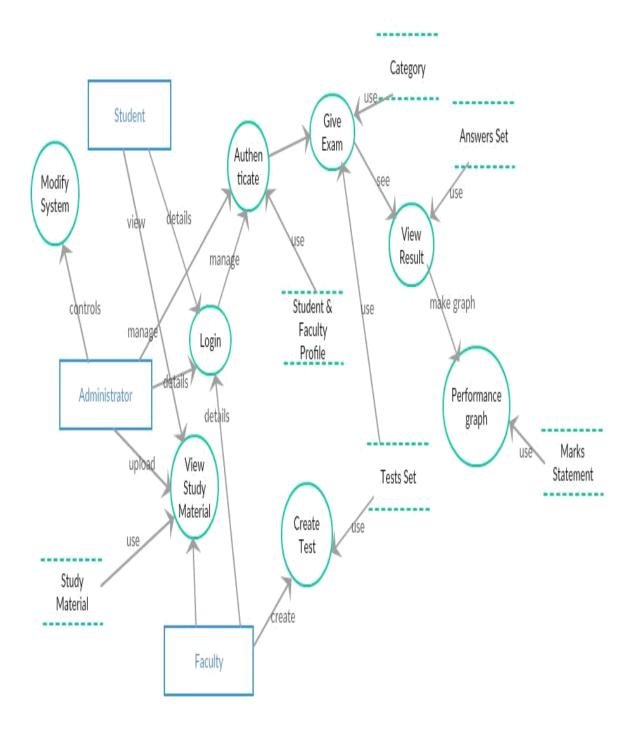


Fig- Conceptual Level Class Diagram

4.3 Data flow Diagram (Level 0, 1)



Level - 0



Level - 1

Fig- Data Flow Diagrams

4.4 Database Design (ER-Diagram)

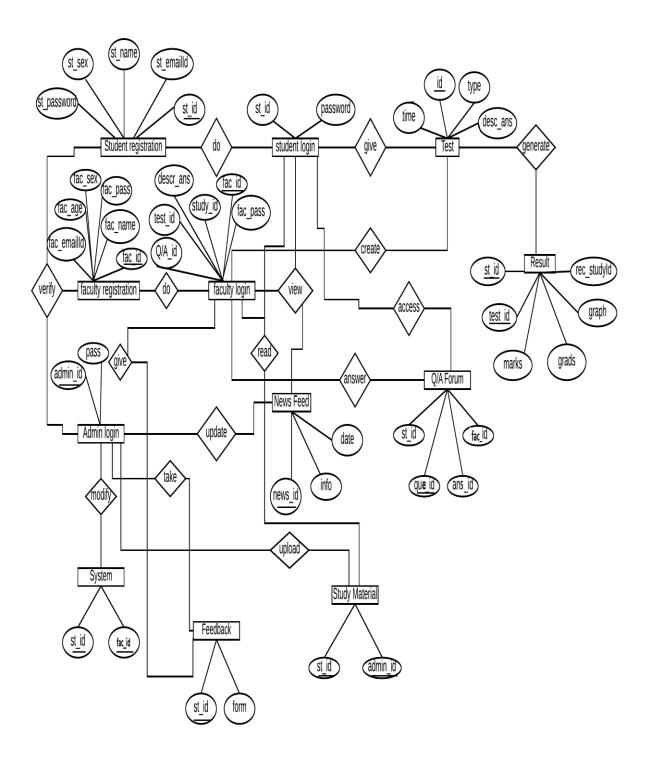


Fig- ER Diagram

CHAPTER - 5

SYSTEM MODELING

5.1 Detailed Class Diagram

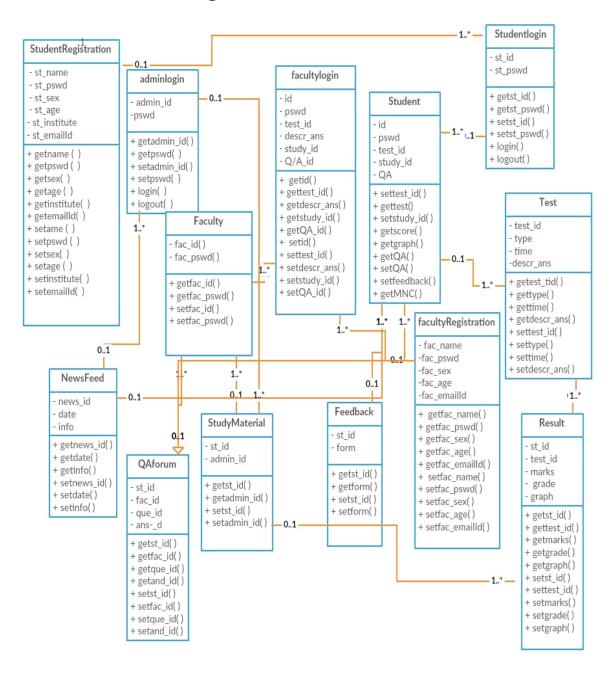


Fig- Detailed Class Diagram

5.2.1 Sequence Diagram

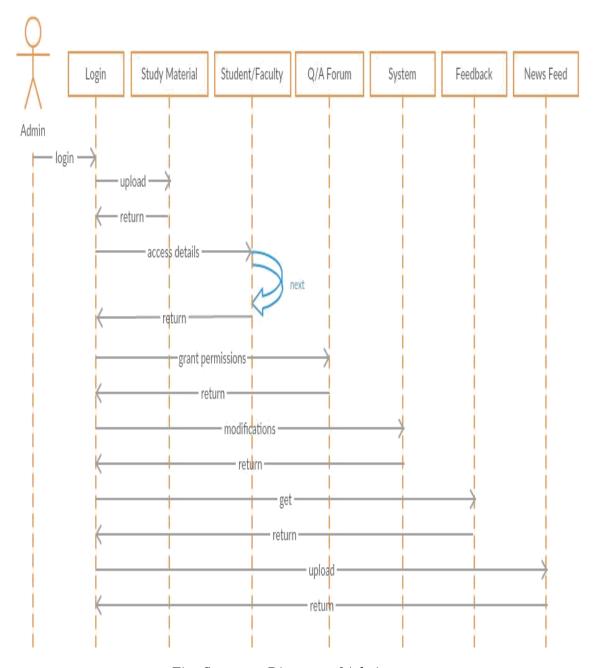


Fig- Sequence Diagram of Admin

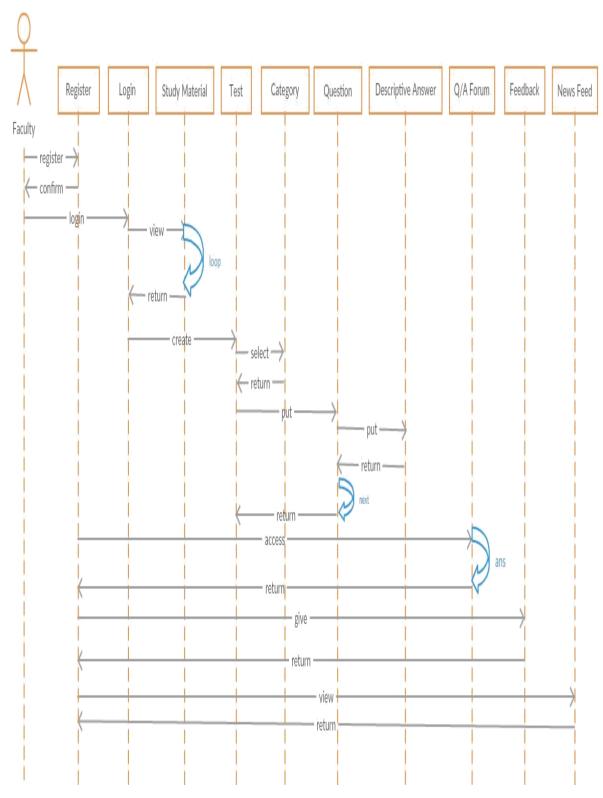


Fig- Sequence Diagram of Faculty

Online Learning & Performance Analyzer Register Login Study Material Test Category Question Descriptive Answer Score Card Graph Q/A Forum News Feed Feedback -register-- confirm -−id & gswd · view select – return – - view--ask <mark>d</mark>uery/ accessreturnview returnfill form retu**r**n Fig- Sequence Diagram of Student

5.2.2 Collaboration Diagram

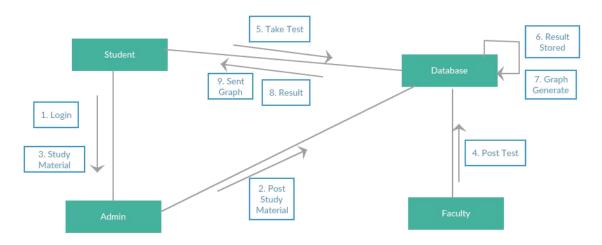


Fig- Collaboration Diagram

5.3 Activity Diagram

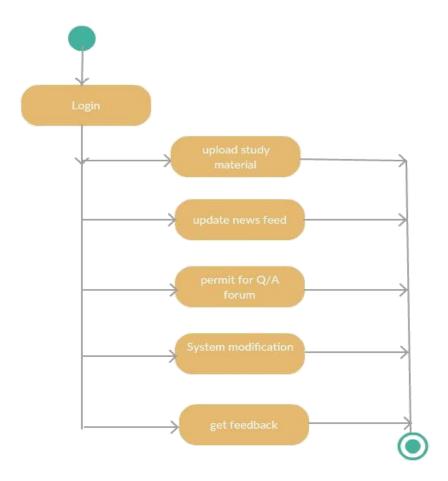


Fig- Activity Diagram of Admin

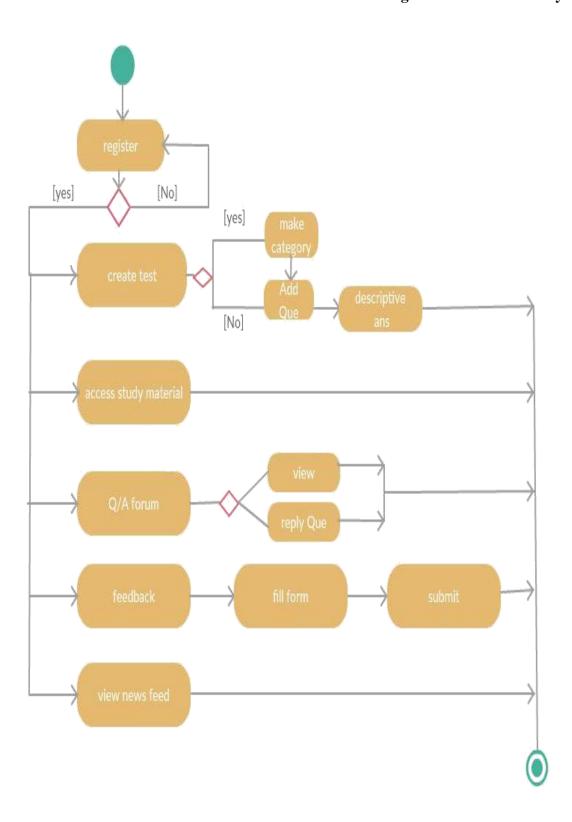


Fig- Activity Diagram of Faculty

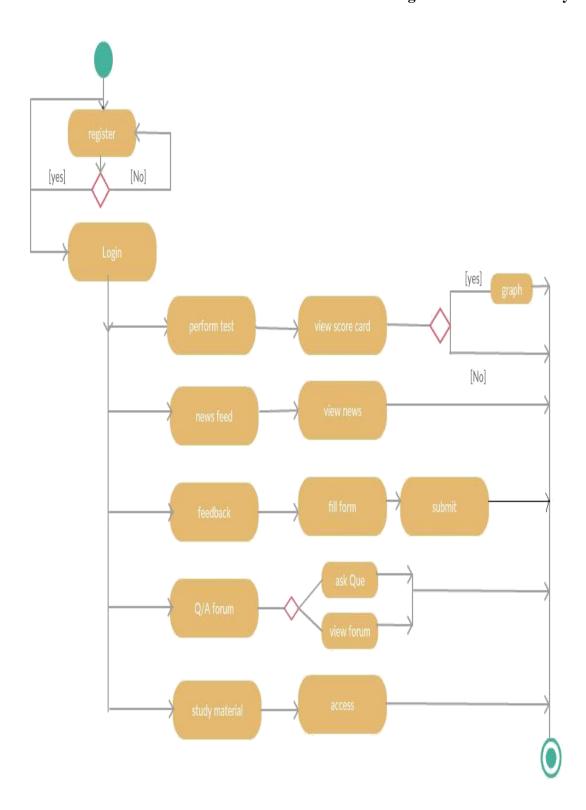


Fig- Activity Diagram of Student

5.4 Object Diagram

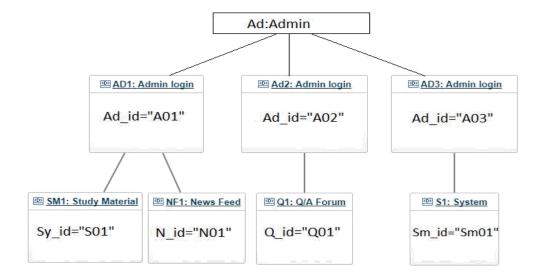


Fig- Object Diagram of Admin

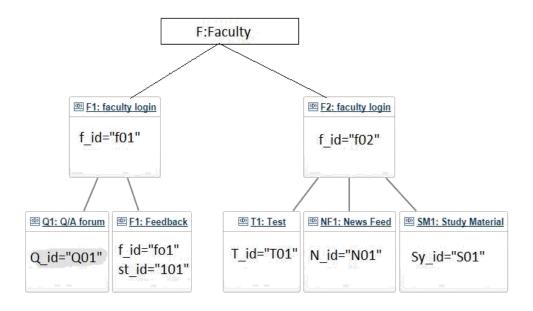


Fig- Object Diagram of Faculty

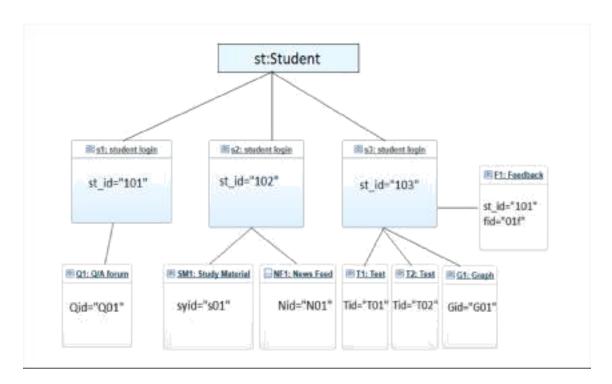


Fig- Object Diagram of Student

5.5 Component Diagram

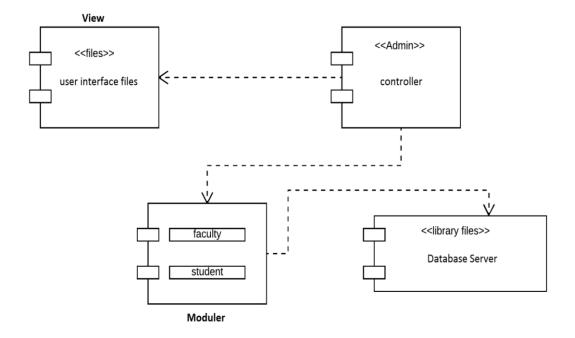


Fig- Component Diagram

5.6 Deployment Diagram

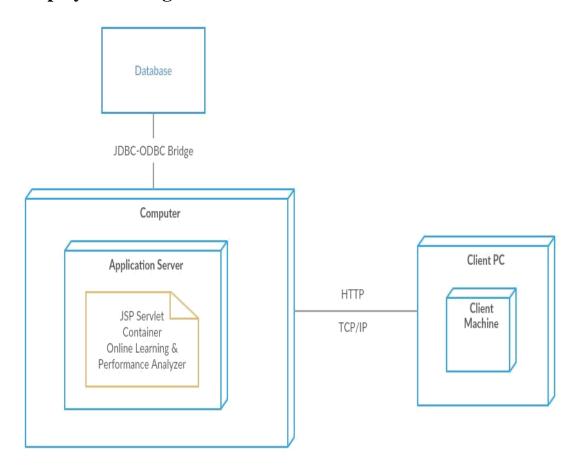


Fig- Deployment Diagram

CHAPTER - 6

TESTING

6.1 INTRODUCTION

Software testing is the process of evaluation a software item to detect differences between given input and expected output. Also to assess the feature of A software item. Testing assesses the quality of the product. Software testing is a process that should be done during the development process. In other words software testing is a verification and validation process.

Software testing is an investigation conducted to provide stakeholders with information about the quality of the software product or service under test. Software testing can also provide an objective, independent view of the software to allow the business to appreciate and understand the risks of software implementation. Test techniques include the process of executing a program or application with the intent of finding errors or other defects, and verifying that the software product is fit for use.

6.2 TYPES OF TESTING

There are many types of testing like

- Unit Testing
- Integration Testing
- Functional Testing
- System Testing
- Stress Testing
- Performance Testing
- Usability Testing
- Acceptance Testing
- Regression Testing
- Beta Testing

Unit Testing

Unit testing is the testing of an individual unit or group of related units. It falls under the class of white box testing. It is often done by the programmer to test that the unit he/she has implemented is producing expected output against given input.

Integration Testing

Integration testing is testing in which a group of components are combined to produce output. Also, the interaction between software and hardware is tested in integration testing if software and hardware components have any relation. It may fall under both white box testing and black box testing.

Functional Testing

Functional testing is the testing to ensure that the specified functionality required in the system requirements works. It falls under the class of black box testing.

System Testing

System testing is the testing to ensure that by putting the software in different environments (e.g., Operating Systems) it still works. System testing is done with full system implementation and environment. It falls under the class of black box testing.

Stress Testing

Stress testing is the testing to evaluate how system behaves under unfavorable conditions. Testing is conducted at beyond limits of the specifications. It falls under the class of black box testing.

Performance Testing

Performance testing is the testing to assess the speed and effectiveness of the system and to make sure it is generating results within a specified time as in performance requirements. It falls under the class of black box testing.

Usability Testing

Usability testing is performed to the perspective of the client, to evaluate how the GUI is user-friendly? How easily can the client learn? After learning how to use, how proficiently can the client perform? How pleasing is it to use its design? This falls under the class of black box testing.

Acceptance Testing

Acceptance testing is often done by the customer to ensure that the delivered product meets the requirements and works as the customer expected. It falls under the class of black box testing.

Regression Testing

Regression testing is the testing after modification of a system, component, or a group of related units to ensure that the modification is working correctly and is not damaging or imposing other modules to produce unexpected results. It falls under the class of black box testing.

Beta Testing

Beta testing is the testing which is done by end users, a team outside development, or publicly releasing full pre-version of the product which is known as beta version. The aim of beta testing is to cover unexpected errors. It falls under the class of black box testing.

CHAPTER - 7

IMPLEMENTATION

LOGIN PAGE

```
import java.io.IOException;
import java.io.PrintWriter;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.SQLException;
//import java.sql.Statement;
import java.util.logging.Level;
import java.util.logging.Logger;
import javax.servlet.RequestDispatcher;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;
public class Loginnew extends HttpServlet
 protected void processRequest(HttpServletRequest request, HttpServletResponse response)
       throws ServletException, IOException {
    response.setContentType("text/html;charset=UTF-8");
     try (PrintWriter out = response.getWriter()) {
```

```
}
  }
@Override
  protected void doGet(HttpServletRequest request, HttpServletResponse response)
       throws ServletException, IOException {
    processRequest(request, response);
  @Override
  protected void doPost(HttpServletRequest request, HttpServletResponse response)
       throws ServletException, IOException {
       HttpSession session = request.getSession();
    try {
      PrintWriter out=response.getWriter();
       String user= request.getParameter("user");
       String email= request.getParameter("email");
       String pass= request.getParameter("password");
      Class.forName("com.mysql.jdbc.Driver");
       out.println("Driver Loaded");
       java.sql.Connection
con=DriverManager.getConnection("jdbc:mysql://localhost:3306/olpa","root","root");
       out.println("Connection Established");
       String email_id ="", password= "";
       String qry="select email_id, password from registration";
       PreparedStatement ps=con.prepareStatement(qry);
      // Statement ps=con.createStatement();
       out.println("Driver Londsnfjerngrl/");
```

```
ResultSet rs =ps.executeQuery();
if(rs.next())
 {
 email_id=rs.getString("email");
 password=rs.getString("password");
if(user.equalsIgnoreCase("Student"))
 {
 if(email_id.equals(email) || password.equals(pass))
 {
 RequestDispatcher rd=request.getRequestDispatcher("student.html");
 rd.forward(request,response);
 }
  else {
    RequestDispatcher rd=request.getRequestDispatcher("login.html");
    request.setAttribute("fail", "User ID or Password Invalid");
    rd.forward(request,response);
 }
if(user.equalsIgnoreCase("Faculty"))
 {
if(email_id.equals(email_id) && password.equals(pass))
 {
 RequestDispatcher rd=request.getRequestDispatcher("faculty.html");
```

```
rd.forward(request,response);
       }
      Else
       RequestDispatcher rd=request.getRequestDispatcher("login.html");
      request.setAttribute("fail", "User ID or Password Invalid");
       rd.forward(request,response);
       } }
       out.println("ENd");
    } catch (ClassNotFoundException ex) {
     Logger.getLogger(Loginnew.class.getName()).log(Level.SEVERE, null, ex);
     catch (SQLException ex) {
       Logger.getLogger(Loginnew.class.getName()).log(Level.SEVERE, null, ex);
  }
  @Override
  public String getServletInfo() {
    return "Short description";
}
QUIZ IMPLEMETATION
if(request.getParameter("ANSWER")!=null)
```

```
{
ans=request.getParameter("ANSWER").toString();
Connection conn= null;
Statement st = null;
ResultSet qrst;
ResultSet rs = null;
String id=request.getParameter("id");
System.out.println("id:"+id);
int i=1;
String s,g;
int count=0;
try {
Class.forName("com.mysql.jdbc.Driver");
java.sql.Connection
con=DriverManager.getConnection("jdbc:mysql://localhost:3306/olpa","root","root");
st = con.createStatement();
rs = st.executeQuery("select * from quizques order by rand() limit 1");
int a=0;
while(rs.next())
out.println("score="+count);
  out.println("a="+a);
  a++;
}
```

REGISTRATION PAGE CODE

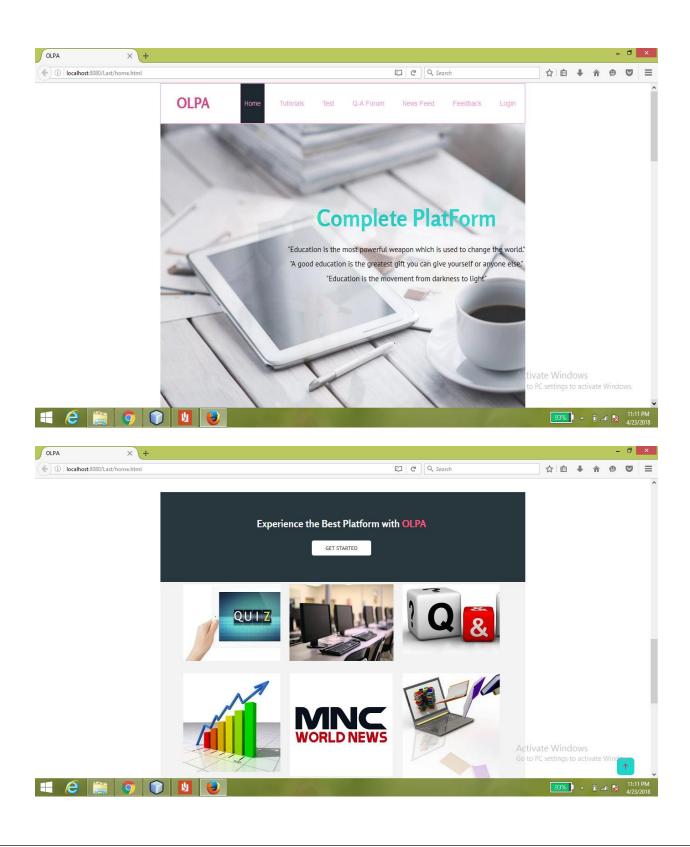
```
import java.io.IOException;
import java.io.PrintWriter;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.SQLException;
import java.util.logging.Level;
import java.util.logging.Logger;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
public class RegistrationNew extends HttpServlet {
  protected void processRequest(HttpServletRequest request, HttpServletResponse response)
       throws ServletException, IOException {
     response.setContentType("text/html;charset=UTF-8");
    try (PrintWriter out = response.getWriter()) {
  }
  @Override
  protected void doGet(HttpServletRequest request, HttpServletResponse response)
       throws ServletException, IOException {
    System.out.println("doGet");
  @Override
```

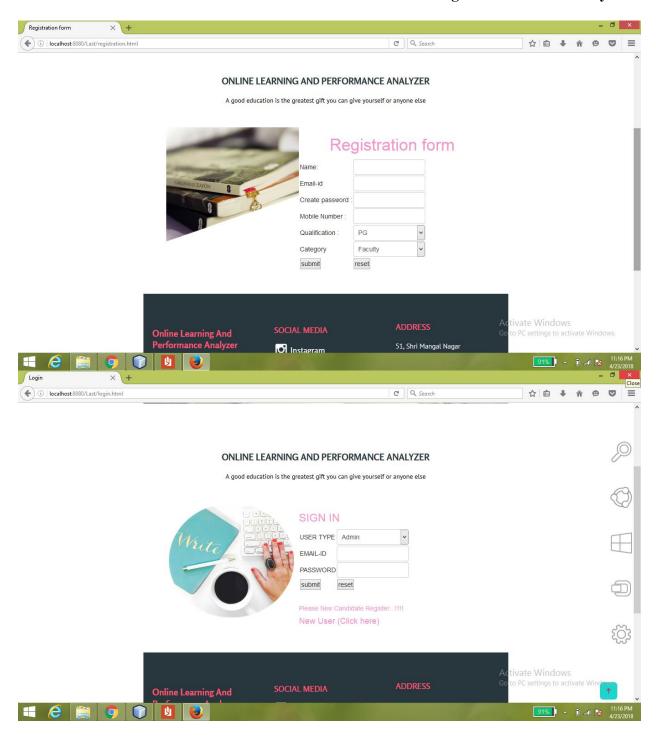
```
protected void doPost(HttpServletRequest request, HttpServletResponse response)
 throws ServletException, IOException {
    try{
       PrintWriter out = response.getWriter();
       response.setContentType("text/html;charset=UTF-8");
       Class.forName("com.mysql.jdbc.Driver");
       java.sql.Connection
con=DriverManager.getConnection("jdbc:mysql://localhost:3306/olpa","root","root");
       String name=request.getParameter("name");
       String email_id=request.getParameter("email_id");
       String password=request.getParameter("password");
       String mobile_no=request.getParameter("mobile_no");
       String qualification=request.getParameter("qualification");
       String category=request.getParameter("category");
       String gr="insert into registration values(?,?,?,?,?)";
       PreparedStatement ps =con.prepareStatement(qr);
       try{
         ps.setString(1, name);
         ps.setString(2, email_id);
         ps.setString(3, password);
         ps.setString(4, mobile_no);
         ps.setString(5, qualification);
         ps.setString(6, category);
         ps.executeUpdate();
         out.println(" Data Successfull updated");
```

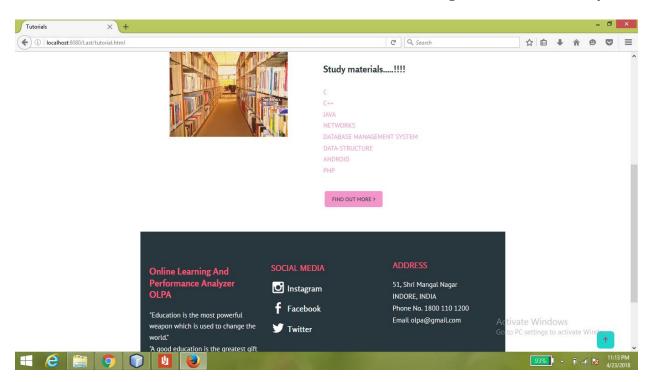
```
}catch(SQLException e){
out.println(e);
} catch(ClassNotFoundException | SQLException ex)

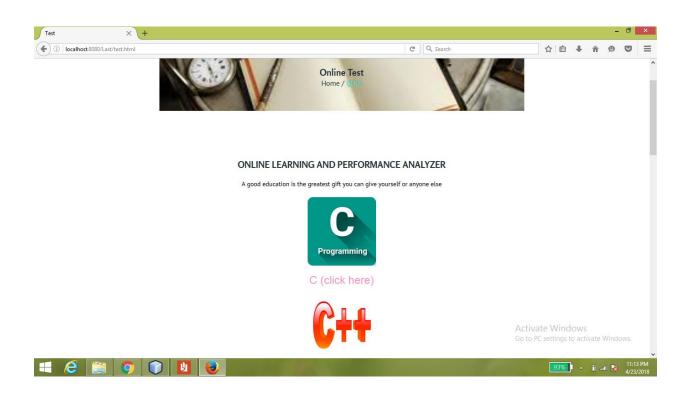
{    } }
@Override
public String getServletInfo() {
    return "Short description";
}
```

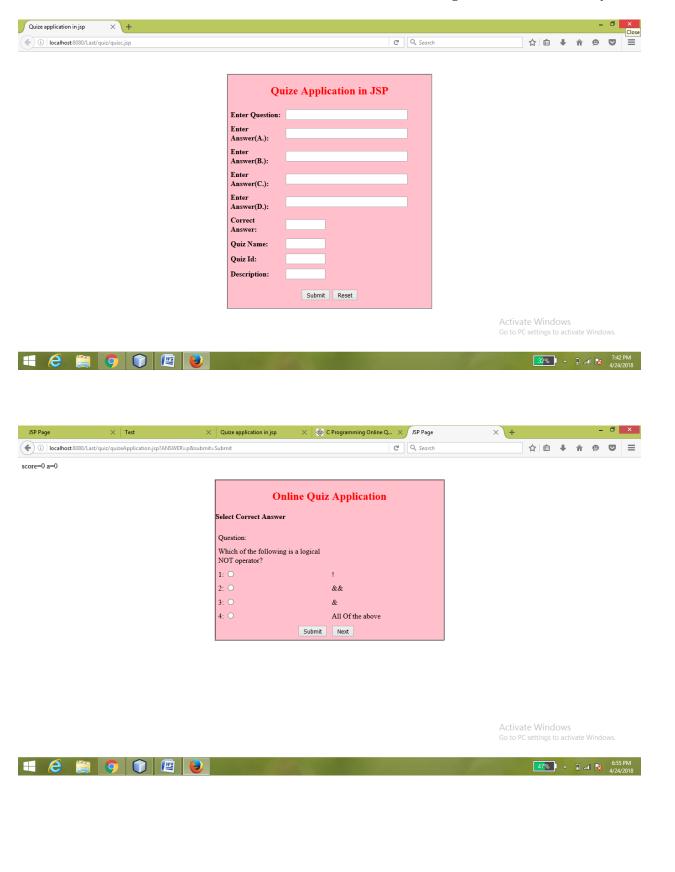
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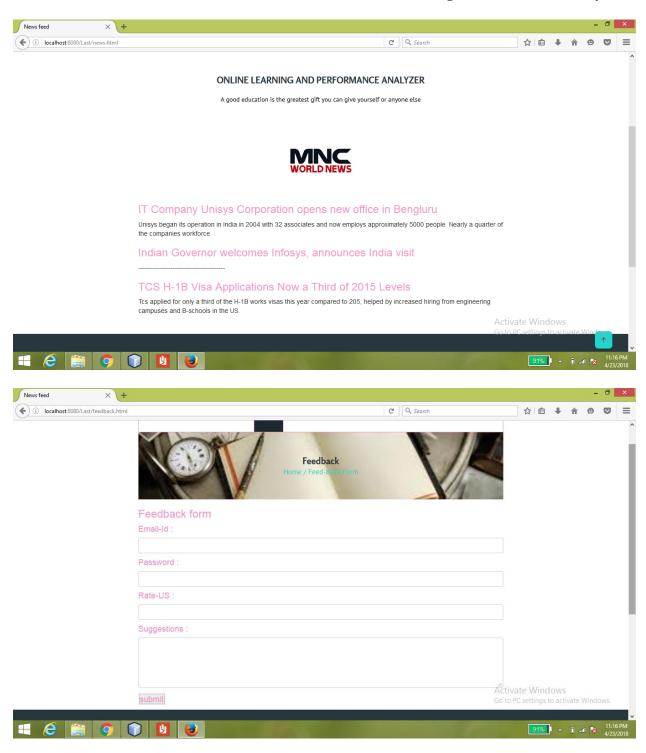












CHAPTER - 9

CONCLUSION & FUTURE WORK

6.1 Limitation of Project

We proposed the system with highly recommended functionalities. Still there are a few limitations which can be overcome in near future.

- The proposed system is efficient in dealing with multiple choice tests only.
- The study material provided here needs to be updated frequently.
- It does not provide audio/video lectures for candidates study purpose.
- Dynamic updation is required for News Feed Section.

6.2 Future Enhancement

The project has a very vast scope in future. The project can be implemented on artificial intelligence in future. Project can be updated in near future as and when requirement for the same arises, as it is very flexible in terms of expansion. With the proposed software of Online Learning & Performance Analyzer ready and fully functional project, the client is now able to manage and hence run the entire work in a much better, accurate and error free manner.

The following are the future scope for the project.

- We can introduce tests based on descriptive answer and their evaluation.
- The consent of audio/video lectures can be introduced using live audio/video streaming and use of networking scenario.
- The performance graphs can be further improvised and can be made in such a way
 that they provide more data interpretation of the candidate's strengths and
 weaknesses.

CHAPTER - 10

BIBLIOGRAPHY & REFERENCES

7.1 Reference Books

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- Herbert Schild and Patrick Naughton, "J2EE The Complete Reference", TMH 2001 Edition.
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7.2 Other Documentations & Resources

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