

Designing A Learning Platform

(English Skill Development)

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Declaration

We, Rushlan Al Ashekin, Puja Rani Saha, Norendra Nath Data, F K Fahad declare that this project English skill development, Project Title and the work presentation are my own. I confirm that:

- This work was done mainly while in candidature for a BSc degree at United International University.
- Where I have been quoted from the working of others, the source is always given. With the exception of such type of quotations, this project is entirely our own work.
- I have acknowledged all main sources of help.
- Where the project is on work done by myself jointly with others team member, I have made clear what was done by others and what I have contributed myself.

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Certificate

I do hereby declare that the research works embodied in this project entitled “**Designing A Learning Platform(English Skill Development)**” is the outcome of an original work carried out by Rushlan Al Ashekin, Norendra Nath Datta, Puja Rani Saha, F K Fahad under my supervision.

I further certify that the dissertation meets the requirements and the standard for the degree of BSc in Computer Science and Engineering.

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Abstract

English skill development has always been a hard task for lower learners, especially when the improvement of the listen and speak skills platform. For skill activities in the language served many valuable purposes to the other skill: they give learners supporting to development, opportunities to create a easily learner, contexts in which to use the language of real information of their own ability to the learner and most important. When we learn our language, first we listen, then we speak,. Listening, speaking, are the four language skills we need had to developed for fully complete communication skill a platform.

English skill development platform is a seriesly advantage, but it can be go both platforms. You mustn't allowed yourself to learners when studying from home, so it would be best to easily the couch for few hours a day and set up easily skill study environment in your home. All you need is a large platform desk and a nice.

When you start brow through interesting online English skill development courses and programs, you shall be notice the most of them. Self-paced learning means that the students can start complete the targets at any time of the learning, and he can arranged a learning schedule that easily meets his development skill.

TABLE OF CONTENTS

CHAPTER 1	8
Introduction.....	8
1.1 Introduction.....	8
1.2 Literature Review.....	8
1.3 Objective	8
1.4 Scope Of the project.....	9
1.5 Overview of the Project	9
CHAPTER 2	10
Requirement Analysis.....	10
2.1 Background Studies	10
2.1.1 IELTS-UP	10
2.1.2 Efforts less English	11
2.1.3 Coursera.....	11
2.1.4 English Helper	12
2.2 Functional Requirements	13
2.2.1 Key Features	13
2.2.2 Development Model.....	13
2.3 Non-Functional Requirements	14
2.4 Benchmark systems VS Our Proposed System	15
CHAPTER 3	16
System Design, Development and Reporting.....	16
Stack Holders/Actors	16
The Hierarchy List	16
Comparisons of Roles of different Stack Holders	17
3.1 Use Case.....	17
3.1.1 Website main Modules	17
3.2 Entity Relationship Diagram (ERD).....	20
3.3 Activity Diagram	21
3.4 Data Flow Diagram.....	21
3.4.1 Level 0 Diagram	22

3.4.2 Level 1 Diagram	23
3.4.3 Level 2 Diagram	24
3.4.4 Level 3 Diagram	25
3.4.5 Context Diagram.....	25
3.4.6 Class Diagram.....	26
3.4.7 Sequence Diagram	27
3.4.8 State Diagram.....	28
3.5 Implementation Environment	29
3.5.1 Framework.....	29
3.5.2 Language.....	29
3.5.3 Database.....	29
3.5.4 Tools	29
3.6 project Module User Interfaces.....	30
3.7 Testing.....	38
3.7.1 Introduction.....	38
3.7.2 Objectives of Testing	39
3.7.3 Test Level.....	39
CHAPTER 4.....	41
Conclusion.....	41
4.1 Summary.....	41
4.2Limitation.....	42
4.3 Future Works	42
REFFERENCES	42

LIST OF FIGURES

Figure 2.1: Agile model with Feedback	14
Figure 2.2: Benchmark system vs Our proposed system	15
Figure 3.1: Use Case of Main Modules	18
Figure 3.2: Entity Relationship Diagram (ERD).....	20
Figure 3.3: Activity Diagram	21
Figure 3.5: Level 0 DFD.....	22
Figure 3.6: Level 1 DFD	23
Figure 3.7: Level 2 DFD.....	24
Figure 3.8: Level 3 DFD	25
Figure 3.9: Context Diagram.....	25
Figure 3.10: Class Diagram.....	26
Figure 3.13: Sequence Diagram	28
Figure 3.14: State Diagram	28
Figure 3.15: Home Page	30
Figure 3.16: Mentor panel page.....	31
Figure 3.17: Exam question Page.....	32
Figure 3.18: Add word page	32
Figure 3.19: Add video content Page	33
Figure 3.20: User register page	34
Figure 3.21: User login Page	34
Figure 3.22: User panel Page	35
Figure 3.23: Online exam Page.....	35
Figure 3.24: Exam page	36
Figure 3.25: Exam answer page	36
Figure 3.26: Audio page	37
Figure 3.27: Dictionary page	37
Figure 3.28: Video content page	38
Figure 3.29: Error message page	40

Chapter 1

1.1 Introduction

Designing A Learning Platform (English skill development) courses offered by our project excluding common open online skill platform course. Because English is used most of the case in our daily life. In the higher education there are two methods in which a learner can attend with an academic exam, the usually method of learning and method through online skill learning. This article will focus on the skill platform of online learning skill. Today's online learning is the common development in distance education with the internet. Learner skill experience is typically, but may also good learner. The vast priority of institutions utilize a Learning platform for the administration of online learning skill courses. As title of distance education, digital technologies to support learning.

1.2 Literature Review:

The English skill platform test created for taking online exam test has following features

- In the comparison the present project the proposed feature will be commonly accurate skill platform.
- project will be very easy in proposed feature as it is automated.
- Result will be very easy and will be declared in very short of skilled because calculation and evaluations are done by the itself.
- The proposed project is very hardly security and no chances of leak of question paper.
- The logs of appeared user and their marks are stored and can be backup for future work.

1.3 Objective of the project:

Main objective for this project are as follows:

- Build community forum for people who interested in learning English language.
- We want to also help student to improve their English learning skill
By providing various type of online test and video tutorial.
- Mainly improve listening, writing, reading & speaking task.

1.4 Scope of the Project:

Many online websites have been offering English skill platform courses for lower learner. This is beneficial the user could learn the subject of his home. Further than they can take it up in their time and need not to quit their jobs. This way of learning platform helps them to find the common required jobs .if a user needs to join some course and lack some exercise, he can take courses to get ready to platform.

1.5 Over View of the project:

In our project “ Designing A Learning Platform (English Skill Development)” we studied the basics web programming the Standards of web development tools, the use of the logical and object – oriented development technique using designs and descriptions before implementation. Through our study, we want to find out the solution to the following question:

- How developers can work as a team?
- Which things are mandatory to create a secure structure of website?
- Which design is efficient for our project and why?
- Who will be benefited from our project?
- Will there any further development or future plan of our project?
- What will be the life cycle of our project?

To find out information about our topic and to find the answer to our inquires, we read, analyzed and justified different platform as well as discuss it with our supervisor and other web developers to get a better overview and focus on the project.

Our supervisor provides proper guidelines and we collected samples of reference documents related to different projects available in our University library. We also browse the internet for more info regarding design, development and programming solution.

.Our team consists of four members and we divided our works into four parts and these parts are:

- Design and Documenting
- Research
- Coding and Implementation
- Testing

We have written brief descriptions and captions to explain different charts and other information .A List of this sources we used during development is at the end of this documentation in ‘Reference” section.

CHAPTER 2

Requirement Analysis

2.1 Background Studies

We conduct benchmark studies across a wide range of test, typically under the auspices of product information and Usability. Our benchmark test for this project are described below.

2.1.1 IELTS-UP

IELTS-UP English skill development sites are the very simple sites in the communication in English. It is the most comprehensive, advanced skill sites that communication the User all over the Country.

Key Features:

This site has many useful features and information. Some of the key features are as follows

- o Log in
- o Video Support
- o Search content
- o Exam Reviews

Limitations:

Though this site has too many information about skill, we find some limitations those are as follows,

- ☐ Audio content system will not be there.
- ☐ Do not use any algorithm for recommendation.

2.1.2 Effortless English

Effortless English skill development sites are the very simple sites in the communication in English. It is the most comprehensive, advanced skill sites that communication the User all over the Country.

Key Features:

This site has many useful features and information. Some of the key features are as follows

Log in

Video Support

Search content

Exam Reviews

Limitations:

Though this site has too many information about skill, we find some limitations those are as follows,

- ☐ Audio content system will not be there.
- ☐ Do not use any algorithm for recommendation.

.

2.1.3 Coursera

Coursera English skill development sites are the very simple sites in the communication in English. It is the most comprehensive, advanced skill sites that communication the User all over the Country.

Key Features:

This site has many useful features and information. Some of the key features are as follows

Log in

Video Support
Search content
Exam Reviews

Limitations:

Though this site has too many information about skill, we find some limitations those are as follows,

- ☐ Audio content system will not be there.
- ☐ Do not use any algorithm for recommendation.

2.1.4 English Helper

English Helper English skill development sites are the very simple sites in the communication in English. It is the most comprehensive, advanced skill sites that communication the User all over the Country.

Key Features:

This site has many useful features and information. Some of the key features are as follows

Log in
Video Support
Search content
Exam Reviews

Limitations:

Though this site has too many information about skill, we find some limitations those are as follows,

- ☐ Audio content system will not be there.
- ☐ Do not use any algorithm for recommendation.

2.2 Functional Requirements

We studied some benchmark sites and identify some very interesting and useful feature which can be very important for user. We also find some limitation which can be fixable. So finally, we met our project features which contain some important features from our benchmark studies and try to overcome the limitations of them. Our projects key features are described below.

2.2.1 Key Features

- • Search Content
- Log In
- Exam Reviews
- Video Support

2.2.2 Development Model

Using Agile Model in pour project with feedback so every stage of the development process is up to date with minimum error. [Figure 2.1] In this figure we are showing our project development model which is agile model with feedback.

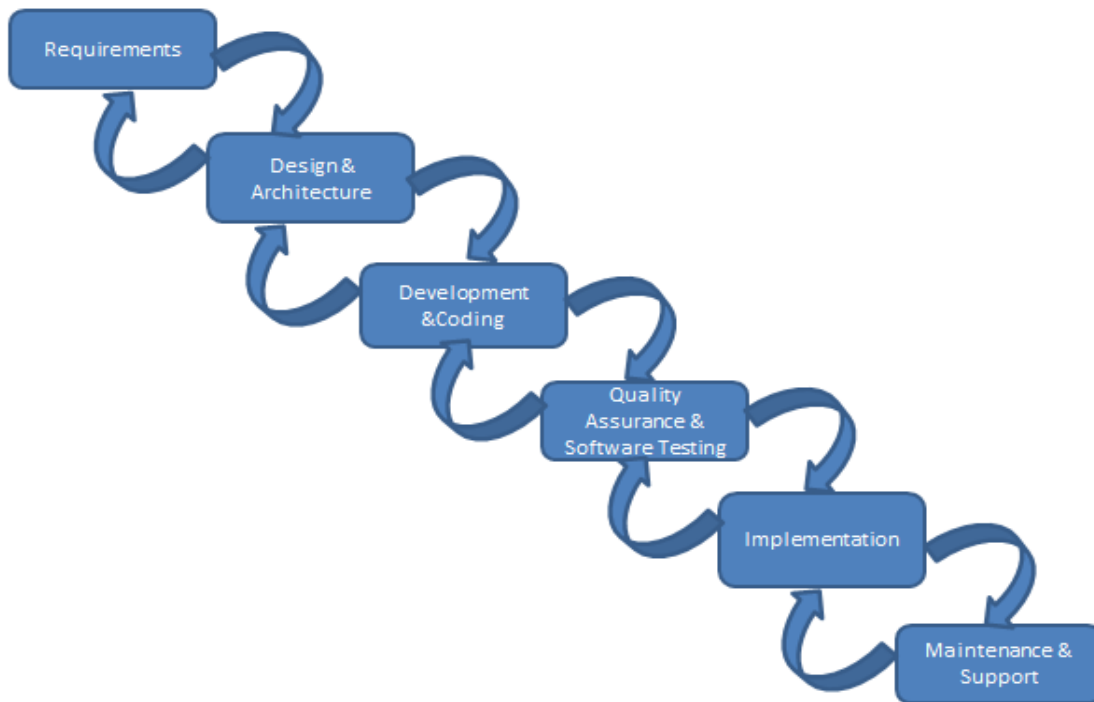


Figure 2.1: Agile model with Feedback

2.3 Non-Functional Requirements

We select some Non-Functional requirements that can help with all user- experience. Our Non-Functional requirements are -

- o Register
- o Login
- o Audio Content
- o Video Content
- o Search

2.4 Benchmark systems VS Our Proposed System

In this figure [Figure 2.2] we are comparing our proposed features with Benchmark products.

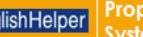
Comparison Table and Proposed System							
Category							Our Proposed System
User Registration	No	Yes	No	Yes	Yes	Yes	Yes
Video Tutorial	No	No	No	No	No	No	Yes
Online Exam	Yes	Yes	Yes	Yes	Yes	No	Yes
Search Bar	Yes	Yes	Yes	Yes	Yes	Yes	Yes
User Support	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Exercise	No	No	No	No	Yes	No	Yes
Logo	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Review	Yes	Yes	Yes	Yes	Yes	No	Yes

Figure 2.2: Benchmark system vs. our proposed system

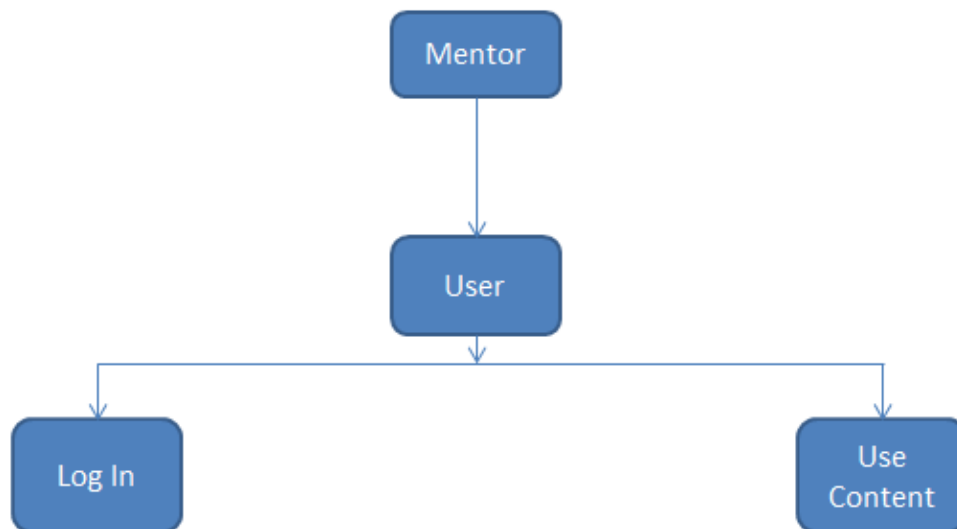
CHAPTER 3

System Design, Development and Reporting

Stake Holders/Actors:

- ❖ Mentors
 - ❖ Can Manage others options.
 - ❖ Ensures the all uploaded question.
 - ❖ Ensures audio & video content.
- ❖ User
 - ❖ Use it
 - ❖ Can Visit
- ❖ Visitors
 - ❖ Visit Only

The Hierarchy List



Comparisons of Roles of different Stake Holders

	Mentor	User
Manage mentor roles	Yes	
Edit the page and add feature	Yes	
Responds and delete content	Yes	
Permit the mentor add feature	Yes	
Handel user	Yes	
Visitor	Yes	Yes

3.1 Use Case

A use case is a bridge between requirements and systems design and aids in the understanding of functional requirements. A use case utilizes a persona element, which can be created using the use case all modules. Here we are showing and describe our system use case module by module. All use case module are as follows,

Whole System in Use Case Diagram

3.1.1 Website main Modules

[Figure 3.1] In this use case we are showing our system main modules. This use case carries a brief idea about our project. Basically, in this project have five main modules. Those modules are Login or register module, Online exam module, audio Module, Online video module and Update Database Module.

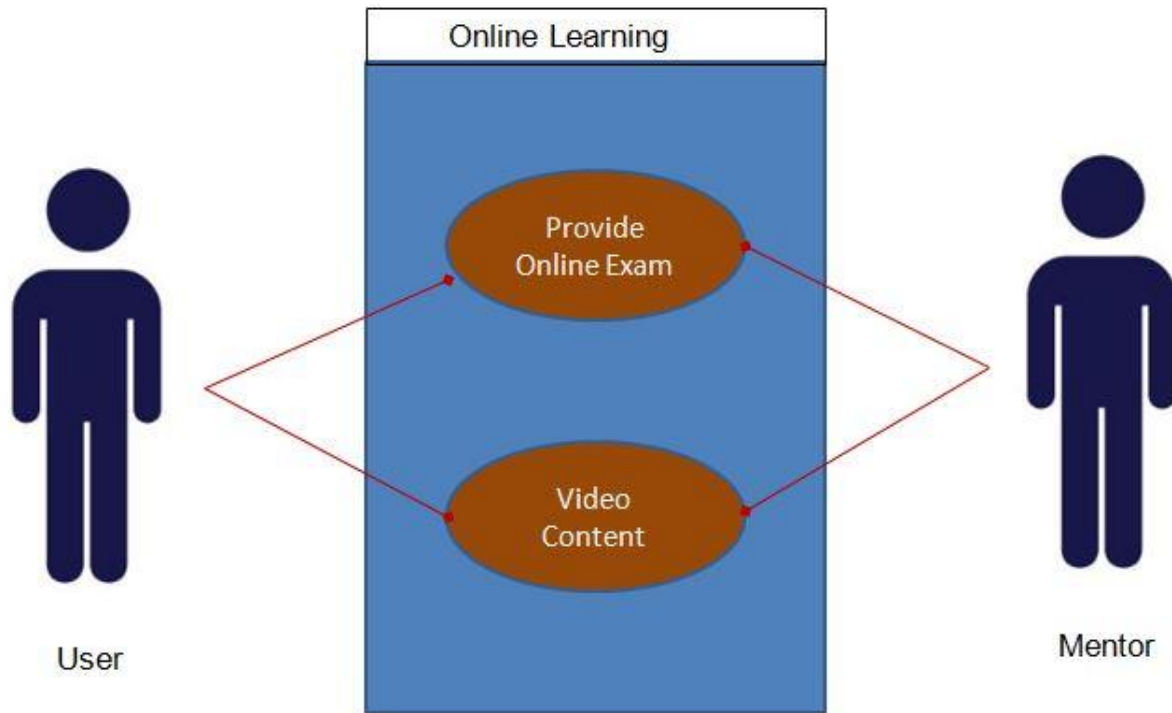


Figure 3.1: Use Case of Main Module

Use Case 1: Online Exam



Primary Actor: Mentor



Stake Holder and Interest:

Mentor: Wants to provide helpful online course to learner ensure quality of course.

User: Wants efficient course at minimal effort.



Pre-Condition: Tutor must be identified and Authenticated.



Post-Condition: Successfully collect learner learning experience and skill.



Success-Scenario:

1. Learner went to English learning website.
2. Searching for courses or information about various facility.
3. Then learner see course details.
4. Then learner collect course form.
5. Learner fill up the information.
6. Then leave the website.

- ❖ Alternative-Scenario:
At any time system will be fail, admin restart the system,
sometimes learner provide wrong information or unable to find the respective course.

Use Case 2: Video Content

- ❖ Primary Actor: Mentor
- ❖ Stake Holder and Interest:
 - ❖ Pre-Condition: Need to login the System
 - ❖ Post-Condition: Update the Database
 - ❖ Success-Scenario:
 1. Select desire online video.
 2. View video content.
 3. Add.
 4. Update video content.
- ❖ Alternative-Scenario:
 - ❖ If View failed, give error message to user and system
 - ❖ If System crashes recover the system with prior state.

3.2 Entity Relationship Diagram (ERD)

In this [Figure 3.3] figure we are showing our project entity relationship diagram. This diagram represents our project basic database entity and its relation between them. With this ERD everyone can easily understand how our project works in database .

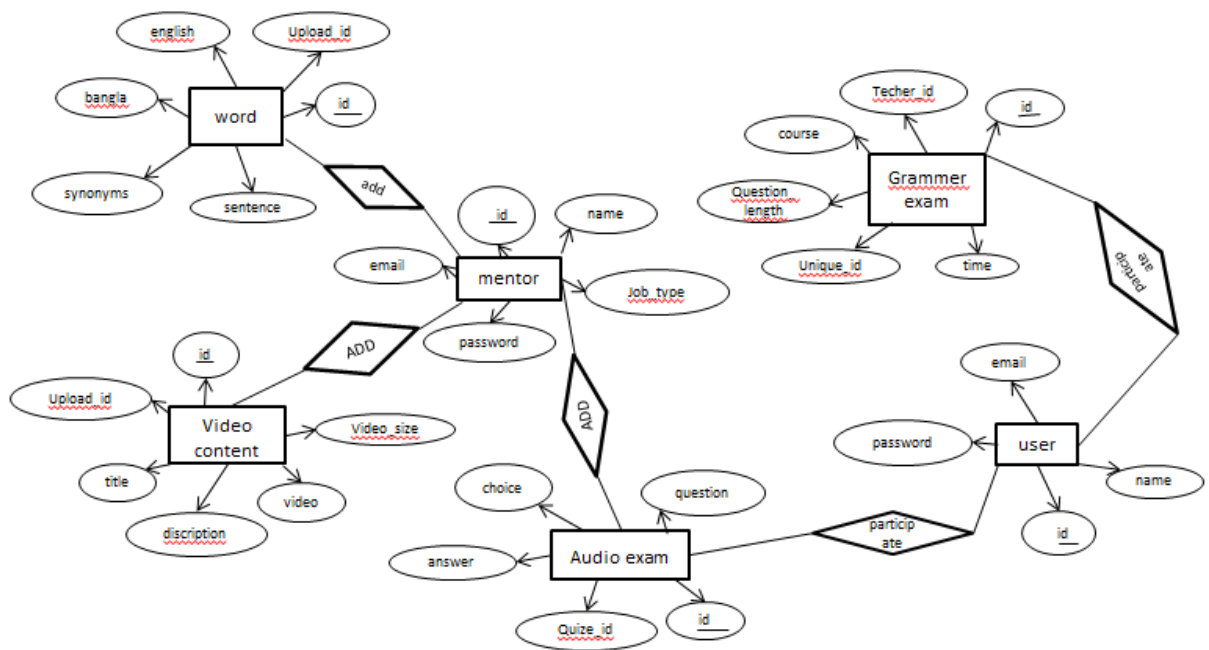


Figure 3.3: Entity Relationship Diagram (ERD)

3.3 Activity Diagram

In this figure [Figure 3.4] our project activity diagram. This diagram represents all of the activity in our project which can be possible by users.

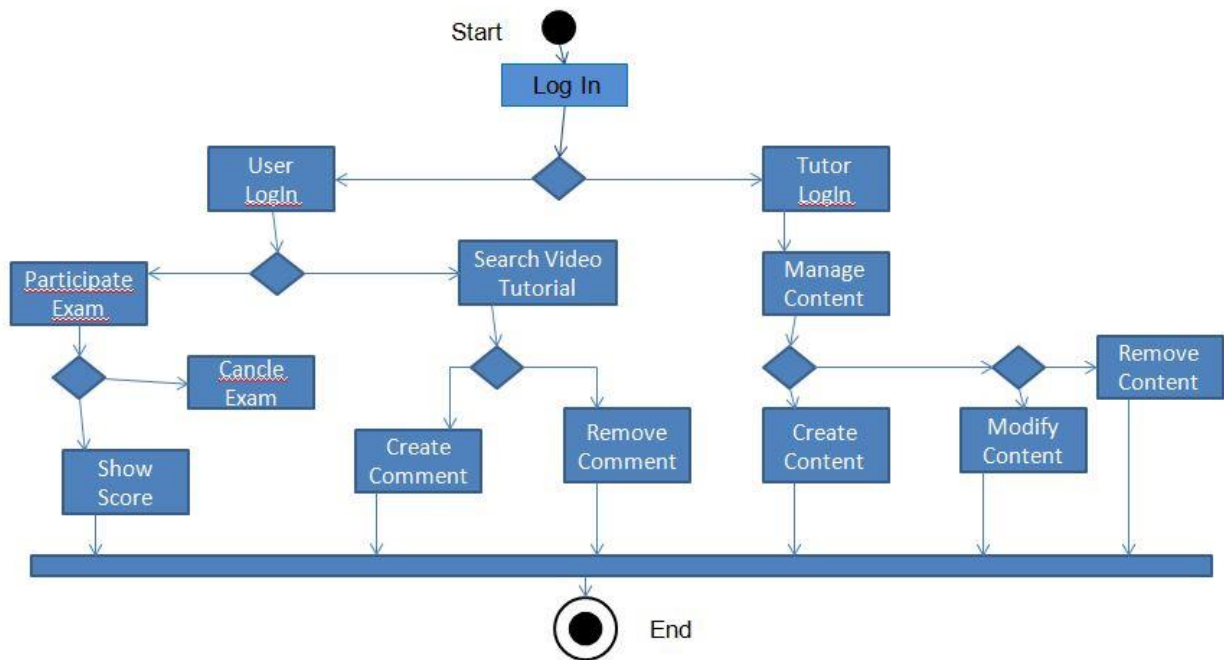


Figure 3.4: Activity Diagram

3.4 Data Flow Diagram

A Data Flow Diagram (DFD) maps out the flow of information for any process or system. In our system we define our DFD into 3 level, so can every single process can understandable. Our data flow diagrams are as follows.

3.4.1 Level 0 Diagram

In this figure [Figure 3.5] we are described our level 0 diagram.

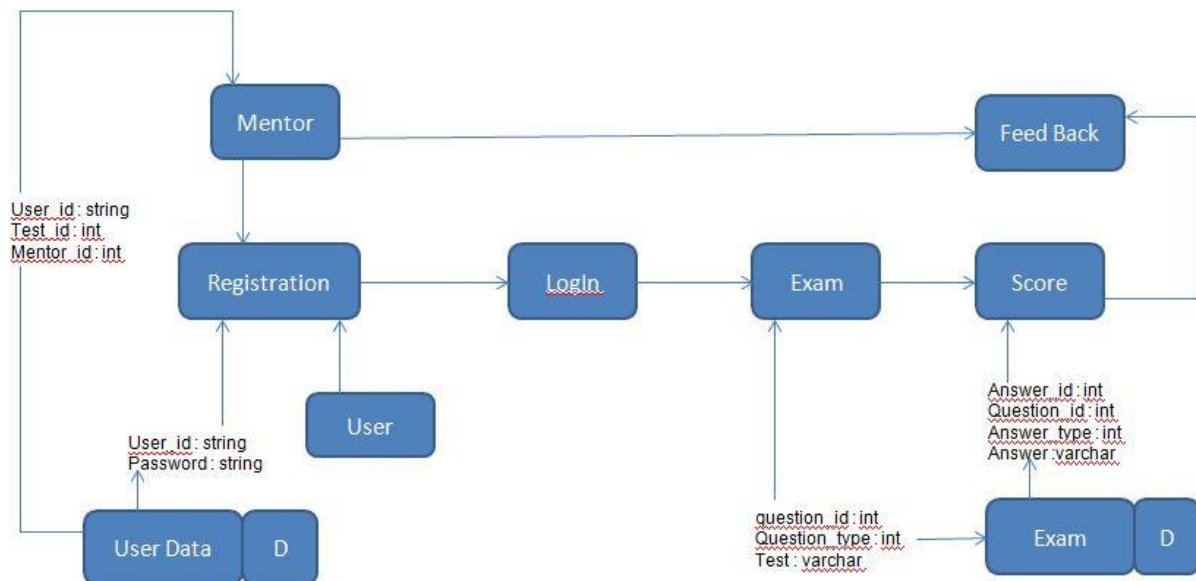


Figure 3.5: Level 0 DFD

3.4.2 Level 1 Diagram

In this figure [Figure 3.6] we are described our level 1 diagram have two main processes.

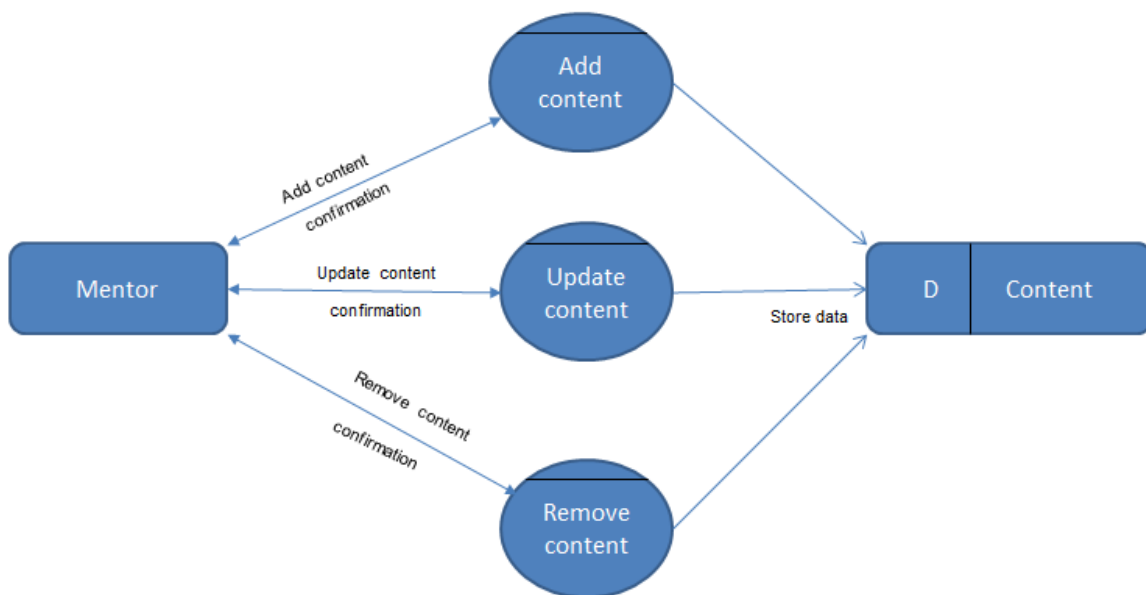


Figure 3.6: Level 1 DFD

3.4.3 Level 2 Diagram for the Process Exam Question

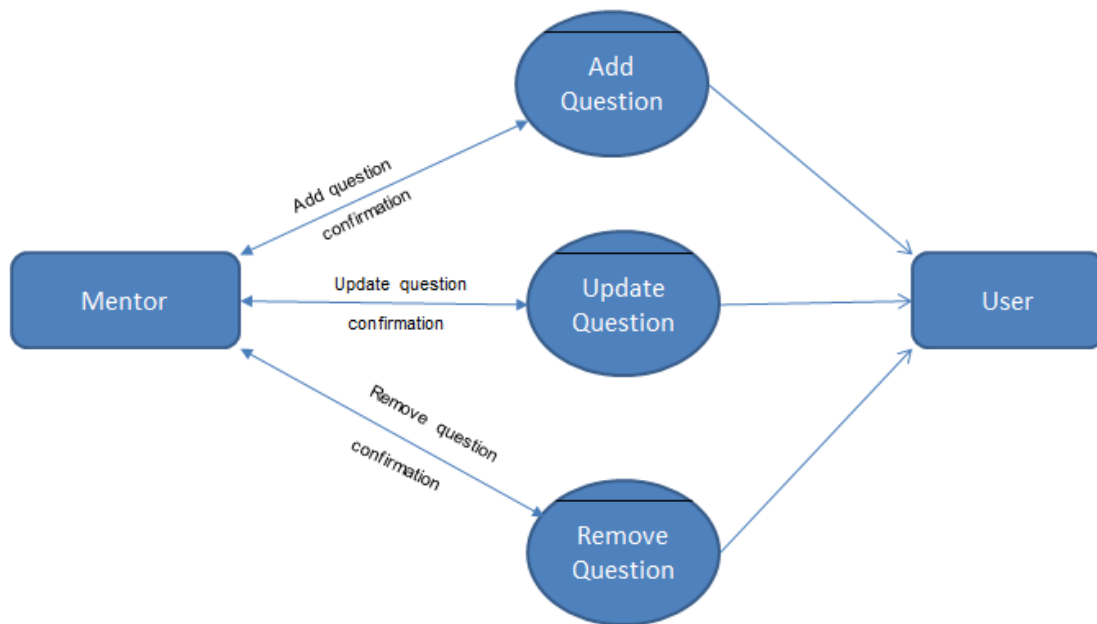


Figure 3.7: Level 2 DFD

3.4.4 Level 3 Diagram for the process of exam

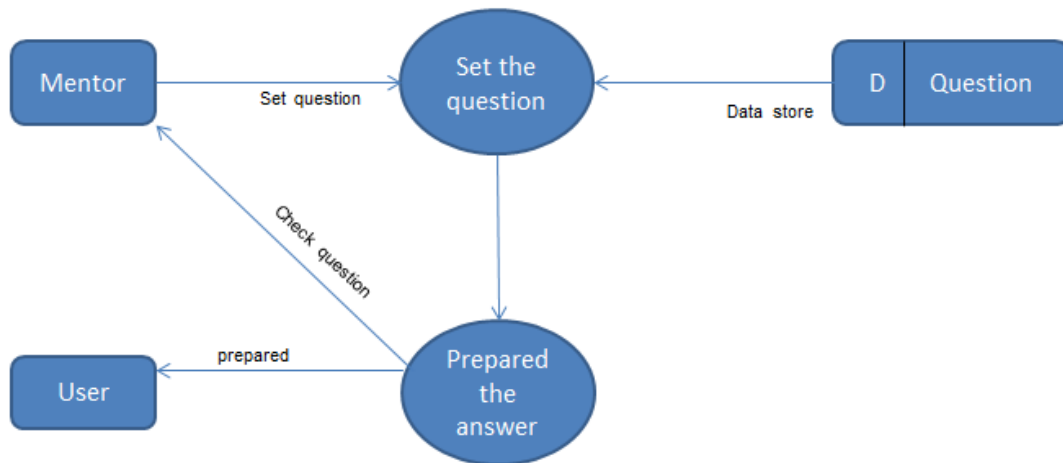


Figure 3.8: Level 3 DFD

3.4.5 Context Diagram



Figure 3.9: Context Diagram

3.4.6 Class Diagram

- ❖ The class diagram is the main process building type block of object-oriented modeling.
- ❖ It is used both for general conceptual modeling of

The systematic of the application, and for detailed modeling translating the models into cover programming code.

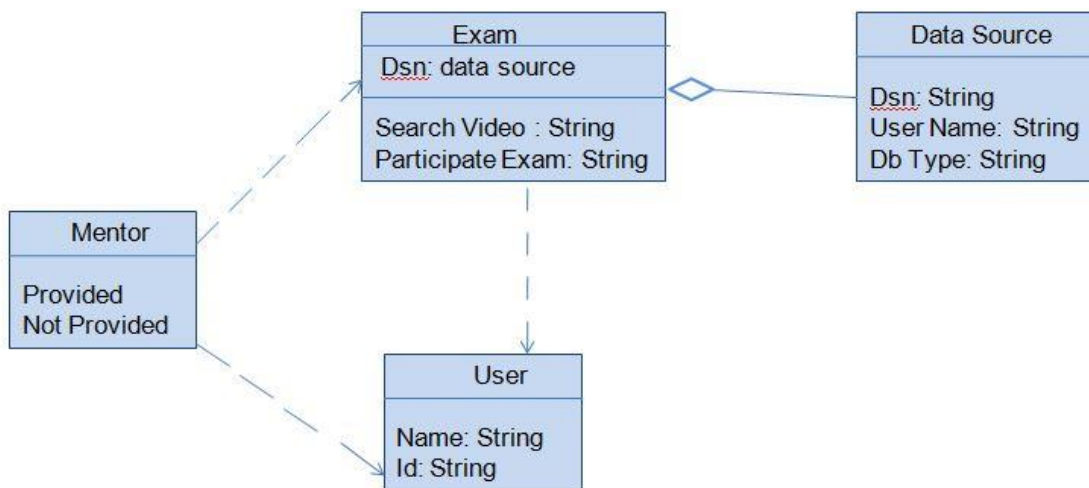


Figure 3.10: Class Diagram

3.4.7 Sequence Diagram

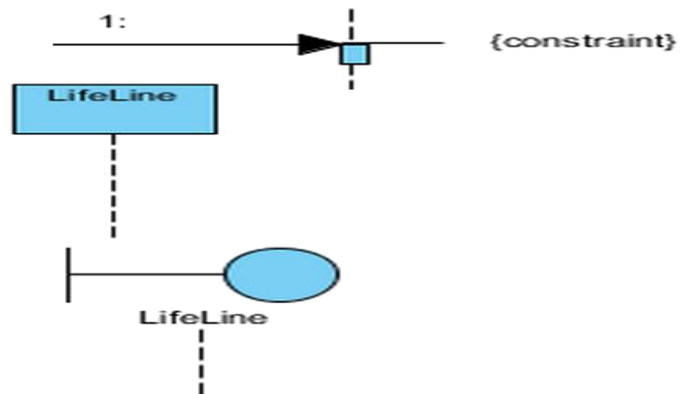
- UML sequence diagrams use to show how objects impact interact in a given different situation.
- An important of a sequence diagram is that time passes from top to bottom: the interaction starts near the top of the diagram and ends at the bottom

Symbols:

Time Constraint:

Life Line :

Life Line
<<boundary>>:

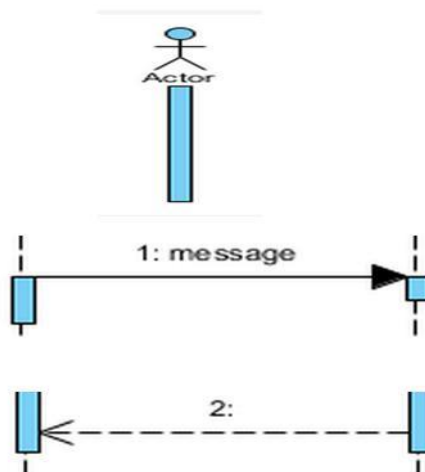


Symbols:

Actor:

Call Message:

Return Message:



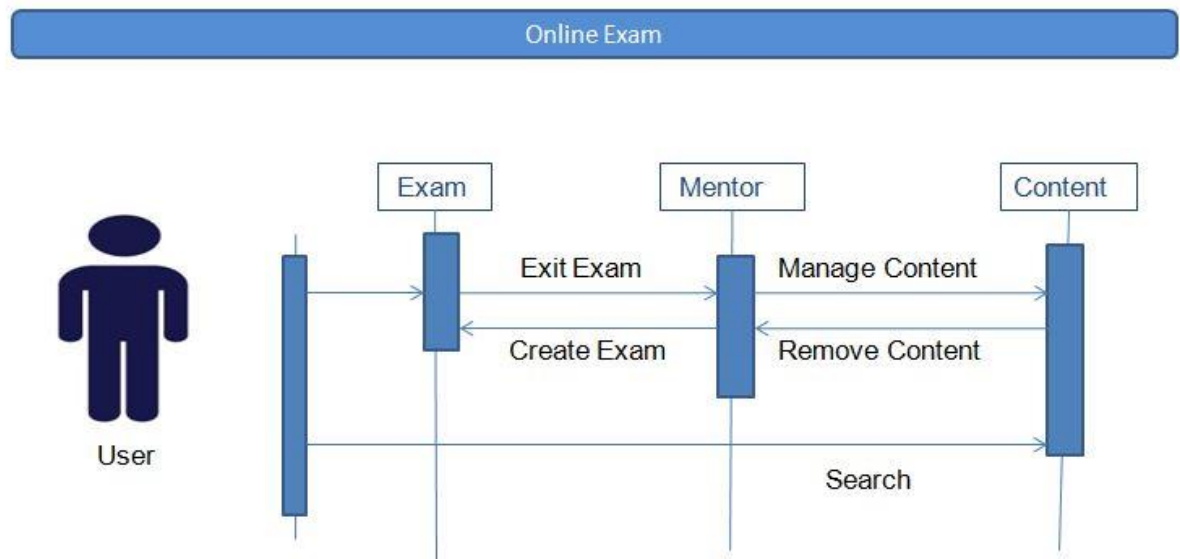


Figure 3.13: Sequence Diagram

3.4.8 State Diagram

In this figure [Figure 3.14] we are described State Diagram.

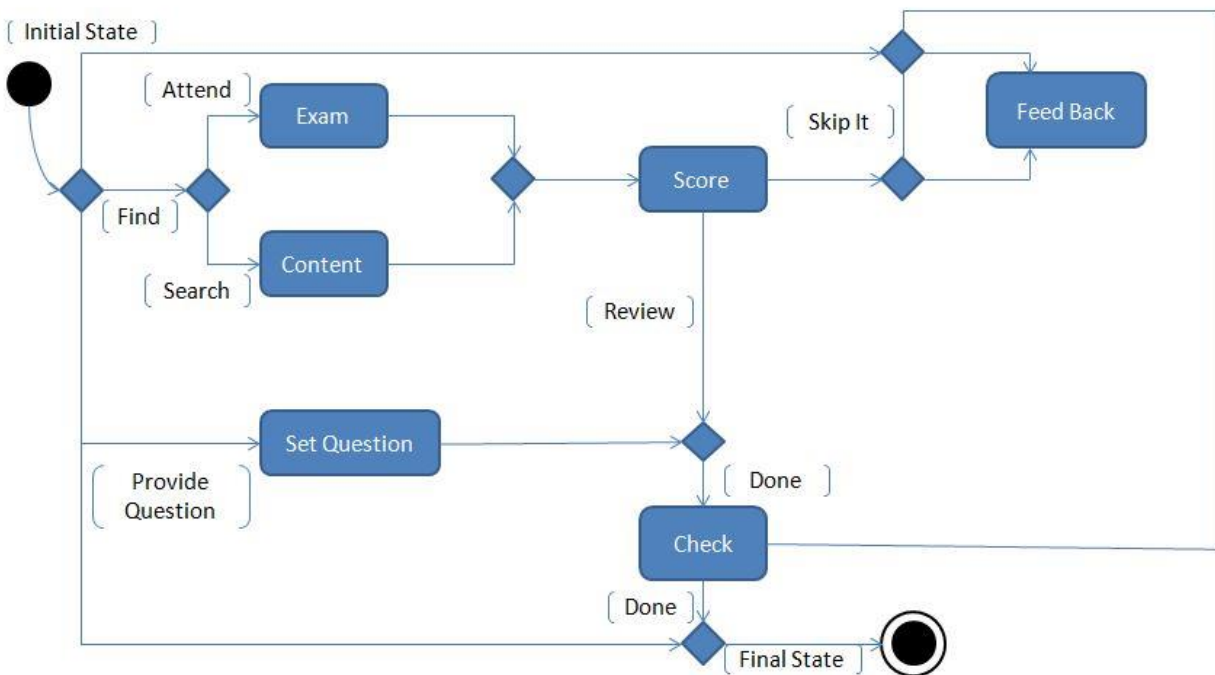


Figure 3.14: State Diagram

3.5 Implementation Environment

In our project environment we are selecting Laravel framework as a development platform. This framework helps the developers build applications that adhere to the MVC pattern. This framework has added functionality like Html Helpers, validators that work unobtrusively; attribute based model validation, pluggable components and dependency injection, which in turn improved testability and much more.

We are also use Entity Framework (EF) in our project. EF is an Object Relational Mapping (ORM) framework that enables developers to work with relational database. In this project developers to deal with data as objects and properties. Using the EF, developers issue queries using LINQ, then retrieve and manipulate data as strongly typed objects using C#.

3.5.1 Framework

- ☐ Laravel5.6
- ☐ Entity Framework 6

3.5.2 Language

- ☐ Php (Back end)
- ☐ HTML, CSS, Bootstrap (Front-End)
- ☐ Java Script, jQuery, AJAX

3.5.3 Database

- ☐ MySQL
- ☐ We Followed Code First Approach to integrate database in our project.

3.5.4 Tools

- ☐ Atom , Note ++

3.6 project Module User Interfaces

[Figure 3.15] This is our platform's home page. Initially users can registration & log in options. User can also participate popular content information in our site. User can easily access with our website. This application's user interface is so simple but attractive and easier to understand the English skill communication platform



Figure 3.15: Home Page

Mentor perspective:

[Figure 3.16, 3.17, 3.18, 3.19] This is our mentor panel page. Initially the mentor can add the any exam question and add video & audio content. And mentor easily add all & review all content and exam questions.

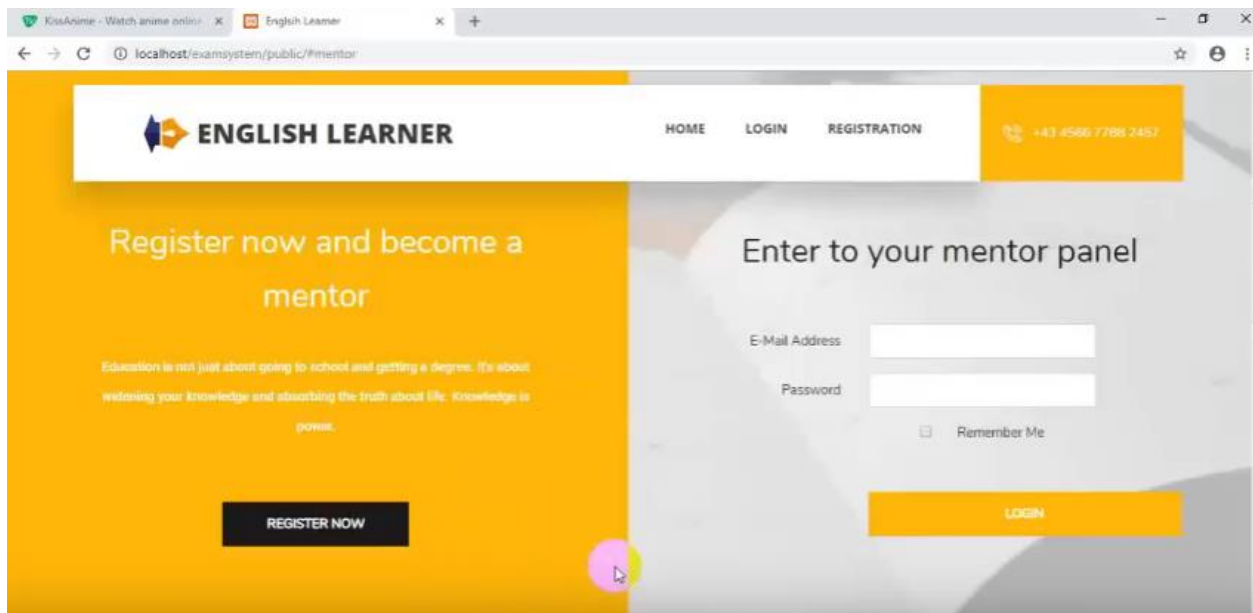


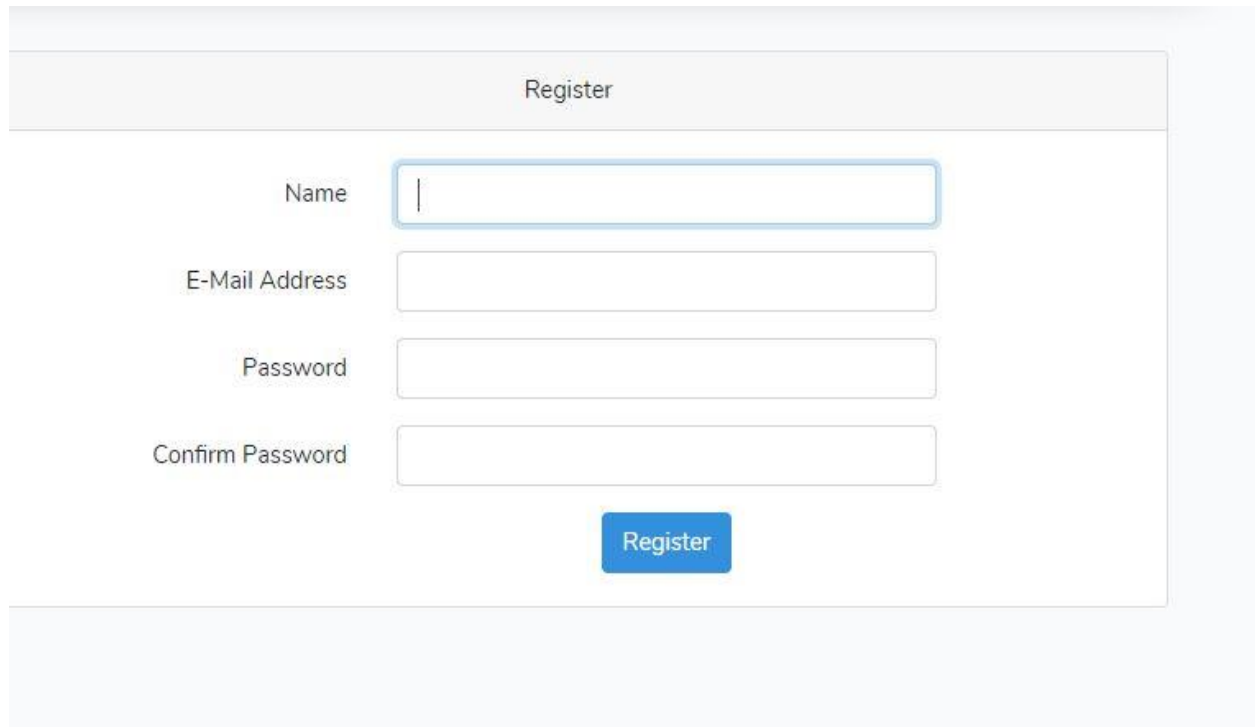
Figure 3.16: Mentor Panel Page

The screenshot shows a web application interface for an English learner. At the top, there is a header bar with the text "English learner" and a "logout" link. On the left side, there is a vertical menu with the following options: "Home", "Add Grammer Question", "Add Audio Question", "Add word", and "Add video". The main content area is titled "Add Video Content Page". It contains a "Title" input field with the text "speaking", a "Description" text area with the text "speaking skill part1", and a video upload section. The video section has a label "Enter video", a "Choose File" button, and the text "speaking skill part1.mp4". At the bottom of the form, there are two buttons: "Submit" and "Back".

Figure 3.19: Add Video Content Page

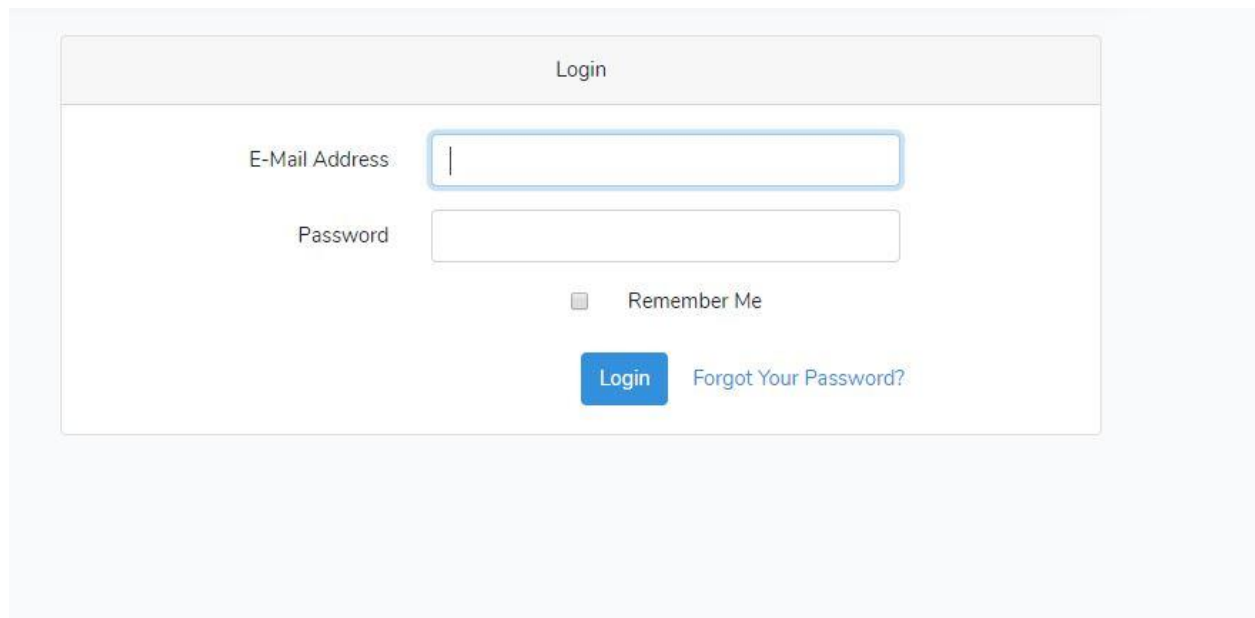
User perspective:

[Figure 3.20, 3.21, 3.22] This is our project User login page. Initially a user can registration & login here if the user are not register then he/she need to register first.



The image shows a web form titled "Register" in a light gray header. Below the header, there are four input fields stacked vertically, each with a label to its left: "Name", "E-Mail Address", "Password", and "Confirm Password". The "Name" field is currently active, indicated by a blue border and a vertical cursor. At the bottom of the form is a blue button with the text "Register".

Figure 3.20: User Register Page



The image shows a web form titled "Login" in a light gray header. Below the header, there are two input fields stacked vertically, each with a label to its left: "E-Mail Address" and "Password". The "E-Mail Address" field is currently active, indicated by a blue border and a vertical cursor. Below the input fields is a checkbox labeled "Remember Me". At the bottom of the form is a blue button with the text "Login" and a link labeled "Forgot Your Password?" to its right.

Figure 3.21: User Login Page

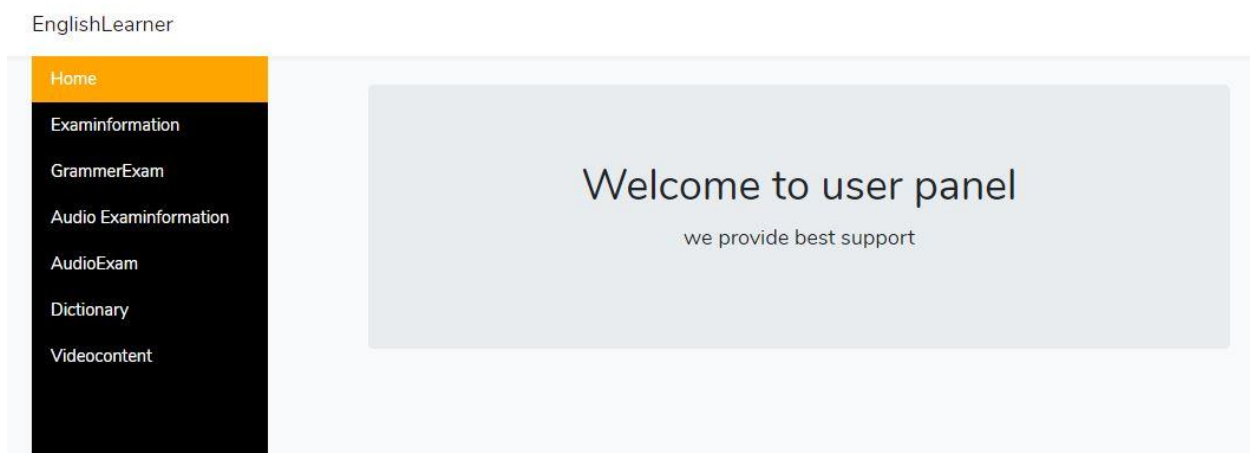


Figure 3.22: User Panel Page

In [Figure 3.23, 3.24, 3.25, 3.26, 3.27, 3.28] in this figure user can online exam. And user can use exam question , audio exam, dictionary, video exam.

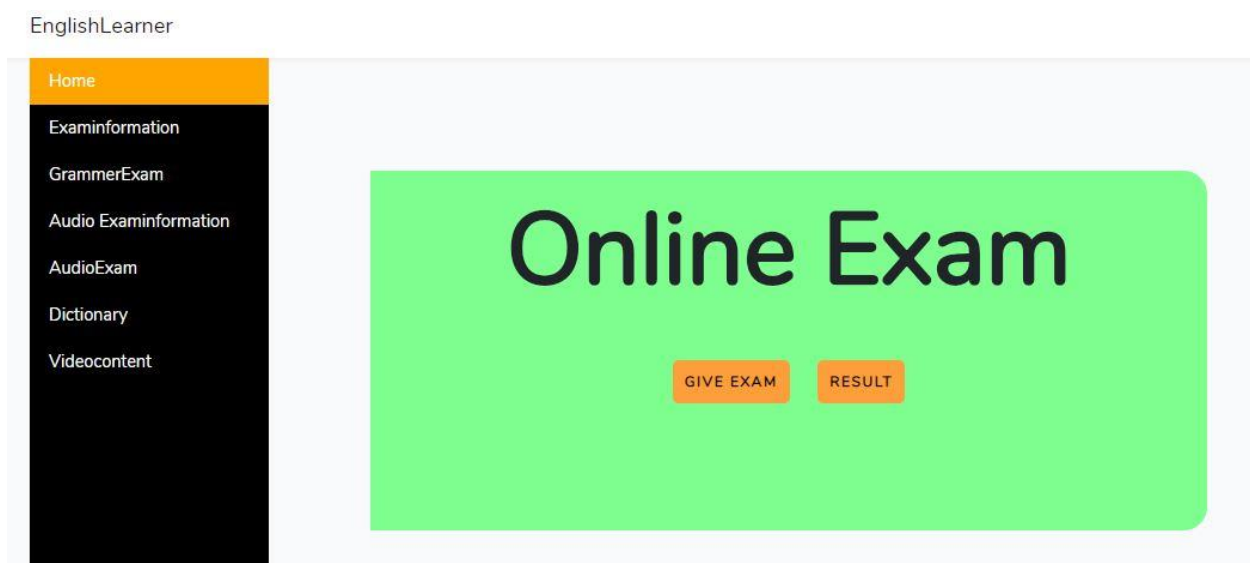


Figure 3.23: Online Exam Page

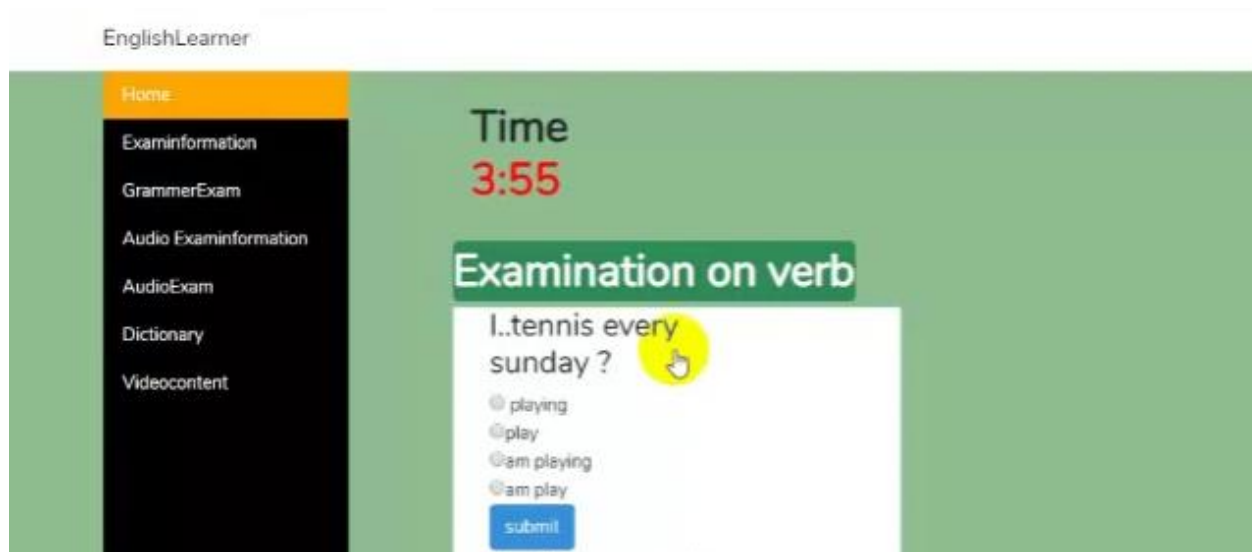


Figure 3.24: Exam Page

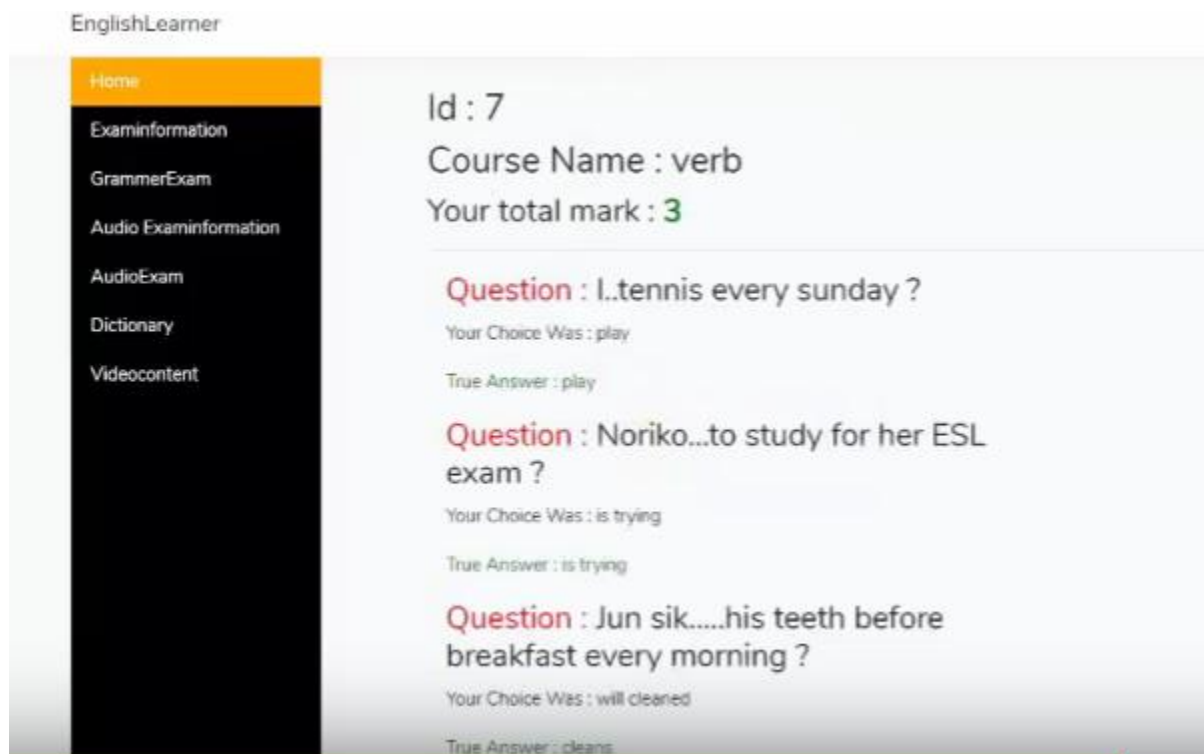


Figure 3.25: Exam Answer Page

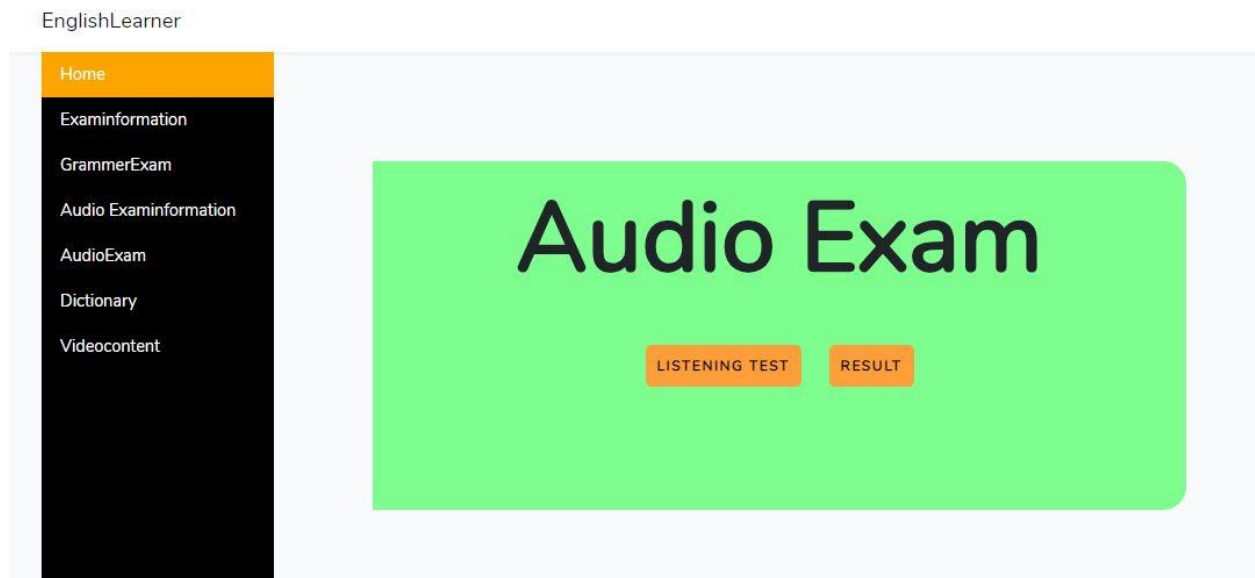


Figure 3.26: Audio Exam Page

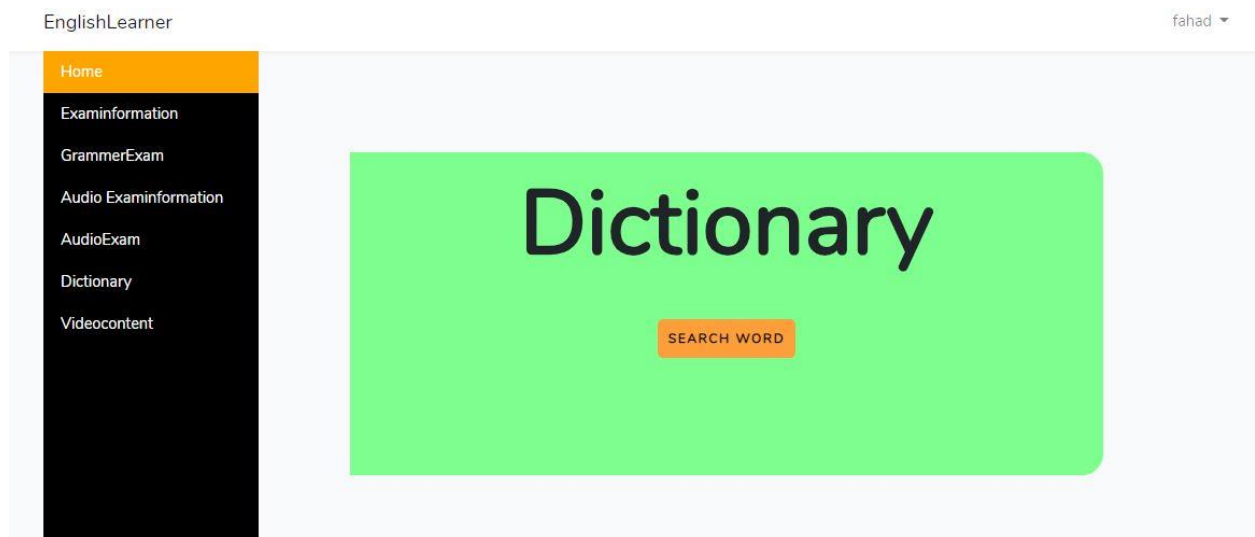


Figure 3.27: Dictionary Page

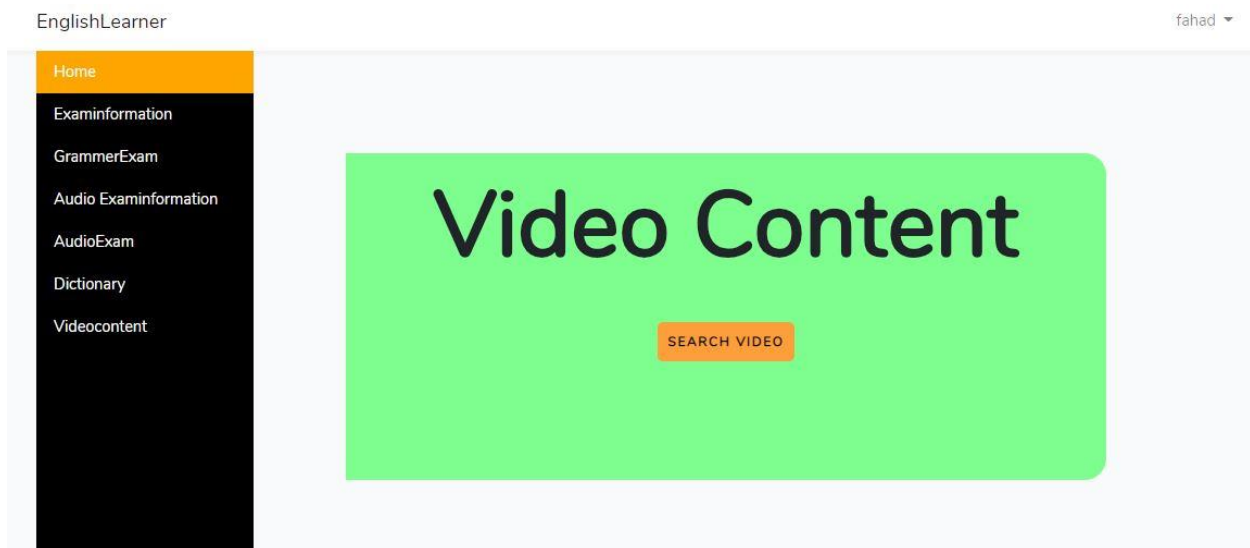


Figure 3.28: Video Content Page

3.7 Testing

3.7.1 Introduction

Testing is one of the important phases for any project development, as it concerns about the performance of the project. When any type of mistake crept in the platform, the system should be capable enough to handle this data. Testing is the process of common exercising a program with the easily specific intent of finding errors to delivery to the end user. It is the next important phase after completion of the design phase successfully. This phase enables the developer to be assured, at least up to some extent that the proposed solution is going to be a quality solution.

3.7.2 Objectives of Testing

The objective of testing is not to show absence of errors or defects, rather to show the presence of the errors. In our system product information mismatch can be very bad impact for all the users because of the information. In this system all module must work perfectly. However, some important objectives of testing are as follows,

- ☐ To different cases of potential errors and bugs
- ☐ To find out whether the project functionalities work according to the specification or not.
- ☐ To ensure that the required system is complete and performs efficiently.

- ☐ To evaluate whether the software perform all activities specified without crashing individual modules after integration with the existing operating environment (hardware, software etc.)
- ☐ To measure up the reliability and overall quality of the software.

3.7.3 Test Level

Test level is defined in three levels, which are as follows,

- ☐ Unit Test
- ☐ Integration Test or System Test

- ☐ Acceptance Test

3.7.3.1 Unit Test

Unit test clearly first on the common modules to errors [Figure 3.23]. This enabled to find errors in coding and logic that contained within that module type alone. The unit test was performed by clear bottom up testing. If error is found, the module is revised and possible cause of error is defined . We performed unit testing while coding as well as after completion of coding of each module. We tried my best to find the following types of bugs.

- Data type mismatch means the required data type and input data type are not same
- Illegal operations
- Operations performing on database errors
- Tracking system generated errors for any illegal operations due to my application

Doing this project work, the mostly found error message was the following.

HTTP Error 404

404 Not Found

The Web server cannot find the file or script you asked for. Please check the URL to ensure that the path is correct.

Please contact the server's administrator if this problem persists.

Figure 3.29: Error message

3.7.3.2 System Test

System testing does not test the software; however, it tests the integration of module of the system. Our proposed system was also put through the system test to find common sort of website. But our primary concern the unity of individual modules. perfection some special level system tests were performed. After testing the results, it was found that our proposed feature met all the specified requirements.

3.7.3.3 Acceptance Test

We are currently executing the acceptance testing of the proposed system. Both the computerized system and the organization's traditional manual system are running simultaneously to find out the lacking of the system. It has been planned that, this process will continue for the next few weeks (approximately 2 weeks).

CHAPTER 4

Conclusion

4.1 Summary

English Skill Development System was designed in such a way that future modifications can be done easily. These are following conclusions can to be deduced from development of the project.

- Anytime of the entire system improves the efficiency.
- It provides a properly graphical user interface which proves to be better.
- It gives appropriate access to the users.
- It effectively overcomes the delay in communications skill platform.
- Updating the information easily.
- System security, data security and reliability are the features.
- The System has adequate scope for modification in future if it is necessary.

4.2 Limitations

Due to time constraint the project that is developed covers only the aspect of exam taking system.

4.3 Future Work

Due to the time constrains, we were not able to meet the whole development process for this project. Some of our future steps on this project are as follows

- **Various course materials for IELTS/GRE student.**
- **Picture dictionary for word.**
- **Live classes system.**
- **Artificial intelligent system for guide learner to improve their English learning skill.**
- **Pronunciation guide.**

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