

**Development of web-based system for supporting English
vocabulary: Guess and Check Method**

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This Report Presented in Partial Fulfillment of the Requirements for the
Degree of Masters of Computer Science and Engineering

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APPROVAL

This Project titled “ **Development of web-based system for supporting English vocabulary: Guess and Check Method** ”, submitted by Aswadia Jesmin to the Department of Computer Science and Engineering, Daffodil International University, has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of M.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on October 11, 2012.

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We hereby declare that, this project has been done by us under the supervision of **Yousuf Mahbubul Islam, Professor, Department of CSE, CIS and CS** Daffodil International University. We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

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ABSTRACT

This is a web application, which help promoting a reading culture among students is therefore one of the key tasks in the curriculum reform, with the aim to strengthen students English word vocabulary learning capability.

The purpose of inculcating the habit of reading among student is to create independent thinking individuals with the ability to not only create their own knowledge but also critically interpret, analyze and evaluate it with objectivity and fairness.

To develop this project the most essential for regular reading habit using guessing from context method. The Guess-Check system presents a simple method of developing vocabulary and fluency in English. The user is encouraged to guess each new unknown word and check the guess from context. The system encourages a regular reading habit and develops fluency.

After implementation of all functions, the system is tested in different stages and it works successfully as a prototype.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

In this era of computer technology many famous universities maintain a learning management system for their teachers and students. For that the education process and communication between the teacher and students become more effective. Many universities are going to start English language learning system so that anybody from anywhere of the world can share their resources and get self-educated. Some universities, institutes are offering their course through online. In our country, nothing like that had yet started. This project is a step to starting improving English word vocabulary for daffodil international university. This system is open for any student of this university.

In this system we enclose some short English storybooks. So that student can find English environment to understand English word. They can check their reflection through this learning system. That's why we named it "Supporting English vocabulary through a Guess and Check Method."

The purpose of inculcating the habit of reading among student is to create independent thinking individuals with the ability to not only create their own knowledge but also critically interpret, analyze and evaluate it with objectivity and fairness.

This is such system what can provide many facilities both to the students and the teachers. This system is very much efficient for the student for their self learning. We know in our country English is our second language, so that student can't find English environment. That's why they can't understand or learn easily English word. Our system will try to provide them English environment for understanding and learning English word. This system will increase student's word understanding ability.

By attending quiz they can judge themselves and give their test. And teacher can also track student's position with our system. The teacher can provide new story, word

with synonym, context sentence and quiz. Teacher also can mark on student's quiz activities.

This will more help full for the students who wants to improve English vocabulary themselves.

1.2 Motivation

We have done this project as a step of starting learning activities management system for daffodil internal university. This university is now one of the well-established universities in our country and the number of the students is growing rapidly day-by-day. To provide self learning facilities to this huge number of students this system can play a major role. We have made this system as a framework. So, any educational institute can use it for their own purpose. This system will help any educational institute, which wants to start Self learning for their students.

This report describes the system designing of this project and the procedure to implement this system in our university. At the end of this report some limitations of this system and future directions are discussed.

1.3 Methodology to be Used

The following features would be desirable for inclusion in a later version.

The product should be designed with these features in mind.

- Any teacher can upload story, story difficult word, context sentence and quiz for their students from anywhere through Internet.
- Used MySQL as the central database Server.

- Used Codeigniter framework as a web language.
- Web based data entry to the central database directory.

1.4 Project Scope and objectives

The scope of the project is-

‘Reading to learn’ is an essential tool for life- long learning. Promoting a reading culture among students is the aim to strengthen students learning facility.

The purpose of inculcating the habit of reading among student is to create independent thinking individuals with the ability to not only create their own knowledge but also critically interpret, analyze and evaluate it with objectivity and fairness.

Encourage student for reading English book.

Give option to choose right synonym and context sentence.

- Short story
- Quiz on difficult word on story
- Quiz Right answer
- Retake quiz Option
- Student result show
- Student tracking facility

Easy access to reading materials is one of the important factors in cultivating reading habits in students.

#Students would spend more time on reading if reading activities are actively promoted and a reading atmosphere created on web based.

1.5 Summary

Student will found an environment where they check themselves for increasing English word vocabulary. Teachers also track student's day to day improvement.

CHAPTER 2

OVER VIEW OF INCREASE WORD VOCABULARY

2.1 Introduction

In this chapter the existing system and proposed system will be discussed.

2.2 Existing System

Most of Student English word vocabulary is limited. Most of my students had a firm grasp on the English language and could speak it fairly fluently, but they struggled when they were assigned to respond to an article, read a novel, or write their own essay.[1]

English language learners (ELLs) who experience slow vocabulary development are less able to comprehend text at grade level than their English-only peers. Such students are likely to perform poorly on assessments in these areas and are at risk of being diagnosed as learning disabled. In this project, we review the research on methods to develop the vocabulary knowledge.

Student doesn't understand English word meaning accurately most of the time.

Teacher-directed language development activities that followed the read-aloud were also used to build oral language proficiency as well as to review and reinforce word meaning for the words that were instructed through the read-aloud .The activities were crafted to conform to the particular words the story provided because different stories lent themselves to different kinds of activities. For example, a story that used many locative prepositions was used to teach them. Other activities reviewed and reinforced words that had been taught through the read-aloud;

Because of the large gap in vocabulary development between students and the limited time available for teacher-directed instruction.[2]

2.3 Importance of proposed System

There is a tremendous need for more vocabulary instruction at all grade levels by all teachers. The number of words that students need to learn is exceedingly large; on average students should add 2,000 to 3,000 new words a year to their reading vocabularies. [3]

For some categories of students, there are significant obstacles to developing sufficient vocabulary to be successful in school:

- ❑ **Students with limited or no knowledge of English.** Literate English (English used in textbooks and printed material) is different from spoken or conversational English. This can present challenges as these students try to make sense of the English they read, especially at the middle and high school levels.

- ❑ **Students who do not read outside of school.** The amount of time spent reading and the amount read are important. For example, a student who reads 21 minutes per day outside of school reads almost 2 million words per year. A student who reads less than a minute per day outside of school reads only 8,000 to 21,000 words per year.

- ❑ **Students with reading and learning disabilities.** Weaknesses in phonemic awareness, phonics, and word analysis skills prohibit students from reading grade-level content material and the rich opportunity this offers for

encountering new, content-related words that can only be found in written English.

- ❑ **Students who enter school with limited vocabulary knowledge.** At first-grade, high performing students know about twice as many words as low-performing students, but that differential gets magnified each year, resulting in high-performing 12th grade students knowing about four times as many words as the low performing 12th graders.

To overcome these obstacles, teachers need to engage the best kinds of vocabulary instruction and use technology that accommodates and supports that instruction. [4]

2.4 Proposed system

To overcome the problem of the students, teachers and the administrative side of the university we have made “English word vocabulary increasing system”. This is actually web-based management system that can remove the limitation of existing system. We have tried to build up such a self learning management system that any university or education institute can use it for their own purpose. Vocabulary knowledge is important because it encompasses all the words we must know to access our background knowledge, express our ideas and communicate effectively, and learn about new concepts. “Vocabulary is the glue that holds stories, ideas and content together. Making comprehension accessible for students.” [5]

Student’s word knowledge is linked strongly to academic success because students who have large vocabularies can understand new ideas and concepts more quickly than students with limited vocabularies.

2.5 Features of the proposed system

Mainly there are two kinds of users in our proposed system. They are not the same categories and their feature will not be the same. In this section, we will discuss about various feature of different type of user of this system.

2.5.1 Teacher

The teacher is the first type of user. The teacher is the super user who will have the power to change, add, delete, update of story, story word, story context sentence and quizzes. Teacher can check student activities and also see the student profile. The features of the teacher are as follows-

- Teacher can post new story as TEXT.
- He can edit, remove, and block, public the story.
- Teacher can insert story difficult word with word synonym, context sentence.
- Teacher can track the student's activity.
- Teacher can take help from synonym API [www.wordreference.com]
- Teacher can create English vocabulary test answer in this system.

2.5.2 Student

The students are the second type of users of this English vocabulary learner. They will get the maximum benefit from it. Actually this system is made for helping the students. The student can see the posted story that was posted by the teacher. Student will found self learning environment. Student has to select synonym, context sentence of story difficult word. Student can see he /her word test mark on he/her profile.

- Students will found short story.
- Then they need to read and attend story word quiz.
- Students are then select word synonym, context sentence.
- Students could pick same quiz again and again.

- Students receive a report of their attending quiz.
- Students quiz result.

2.5.3 Admin

The admin are the third type of users of this English vocabulary learner. They will get the maximum benefit from it. Actually this system is made for helping the students. Admin can create teacher, student. Admin can moderate teacher, student and website content also.

- Admin can add, edit, delete user (Teacher, Student).
- Admin can block and public story.

2.6 Benefit of the User

The system will increase the facilities of the teacher very much. In the way the teacher will be benefited from Guess and check method are as follows-

2.6.1 Teacher

Availability

The teacher can access the web site from anywhere of the world at any time and that's why teacher can monitor students from anywhere of the world. Teacher can insert synonym and context sentence of story difficult word.

Time Saving

In this system the teacher could help student for their self learning. If he wants give any message to his/her students need not meet them personally.

2.6.2 Student

The student will get the maximum benefit from Guess and Check Method. In the way the student will be benefited from this system are as follows-

- Ensuring better practice reading in English Story.
- Initially encouraging its members to stay with English environment.

2.7 Summery

If we implement this Guess and Check Method to our University then the existing system will definitely improved. The process will be easier and effective. Students as well as the faculties will be more benefited than the existing system.

CHAPTER 3

SYSTEM ANALYSIS

3.1 Introduction

System analysis is defined as tasks the focus on the specification of a detailed computer based solution. System analysis emphasize business problem where as system design focuses on the technical or implementation concerns of the system. When a system designer wants to design the system, he or she should have sufficient knowledge about the detail system. Few steps can simplify the task of designing the

code of a system dramatically. Every designer should take time to complete each of the following steps.

- Describe precisely the core functionality and the system design using data model such as ER data model.
- Normalize the system precisely the core functionality the system using Normalization and draws the DFD of the system.
- Describe precisely the core functionality and the system using data model such as DFD.

3.2 Objective

System analysis is conducted with the following objectives in mind-

- Understand a system.
- Understand the different phases of system development life cycle.
- Know the components of system analysis.
- Know the components of system designing.

3.3 System life cycle

System life cycle is an organizational process of developing and maintaining systems. It helps in establishing a system project plan, because it gives overall list of processes and sub-processes required developing a system.[6]

3.4 System development life cycle

System development life cycle means combination of various activities. In other words we can say that various activities put together are referred as system development life cycle. In the System Analysis and Design terminology, the system development life cycle means software development life cycle .[6]

Following are the different phases of software development cycle-

- System study/Initial Idea
- Feasibility study
- Requirement Analysis
- System analysis
- System design
- Development/Coding
- Testing
- Implementation
- Maintenance

The different phases of software development life cycle is shown in Fig.3.1

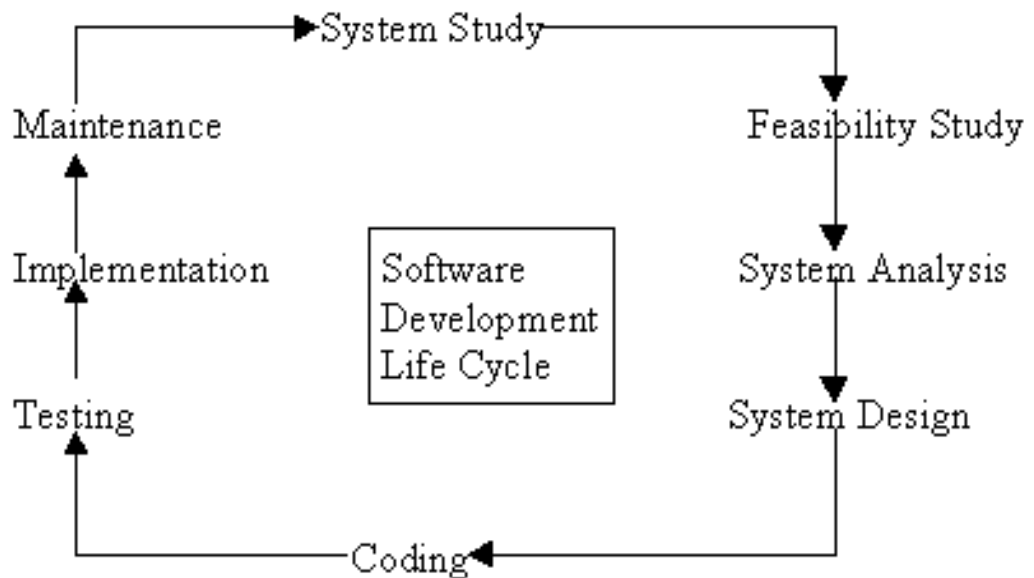


Figure: 3.1 Different phases of Software development Life Cycle.

3.5 Phases of System Development Life Cycle

Let us now describe the different phases and the related activities of system development life cycle in detail. [6]

3.5.1 System Study

System study is the first stage of system development life cycle. This gives a clear picture of what actually the physical system is? After completing the system study, a system proposal is prepared by the System Analyst (who studies the system) and placed before the user. The proposed system contains the findings of the present system and recommendations to overcome the limitations and problems of the present system in the light of the user's requirements. [6]

To describe the system study phase more analytically, we would say that system study phase passes through the following steps-

- Problem identification and project initiation
- Background analysis
- Inference or findings

3.5.2 Feasibility Study

Feasibility is an assessment of a proposed information system to determine whether the system effectively meets the specified business requirements of the organization and whether a business case exists for developing such a system. It means the possibility, the scope of the project. With the help of feasibility study we can-

- Clarify the objective of a proposed system development project.
- Provide a better understanding of a business problem.
- Assess and recommend what action should be taken for its solution.

3.5.3 Requirement Analysis

Requirements Analysis is the process of understanding the user needs and expectations from a proposed system or application and is a well-defined stage in the Software Development Life Cycle model.

Requirements are a description of how a system should behave or a description of system properties or attributes. It can alternatively be a statement of 'what' an application is expected to do. The Software Requirements Analysis Process covers the complex task of eliciting and documenting the requirements of all these users, modeling and analyzing these requirements and documenting them as a basis for system design.

3.5.4 System Analysis

Analysis involved a detailed study of the current system, leading to specifications of a new system. Analysis is a detailed study of various operations performed by a system and their relationships within and outside the system. During analysis, data are collected on the available files, decision points and transactions handled by the present system. Interviews, on-site observation and questionnaire are the tools used for system analysis. [6]

3.5.5 System Design

Based on the user requirements and the detailed analysis of a system, the new system is designed. This is the phase of system designing. It is a crucial phase in the development of a system. Normally the design proceeds in two stages-

- Preliminary or general design
- Structure or detailed design

3.5.6 Development Coding

After designing the new system, the whole system is required to be converted into computer understanding language. Coding the new system into computer programming language does this. It is an important stage where the defined procedures are transformed into control specifications by the help of a computer language. This is also called the programming phase in which the programmer converts the program specifications into computer instructions, which we refer as programs. The programs coordinate the data movements and control the entire process in a system.[6]

3.5.7 Testing

Before actually implementing the new system into operations, a test run of the system is done to remove all the bugs, if any. It is an important phase of a successful system. After codifying the whole programs of the system, a test plan should be developed and run on a given set of test data. The output of the test run should match the expected results.[6]

3.5.8 Implementation

After having the user acceptance of the new system developed, the implementation phase begins. Implementation is the stage of a project during which theory is turned into practice. During this phase, all the programs of the system are loaded onto the user's computer. After loading the system, training of the users starts. Main topics of such type of training are

- How to execute the package
- How to enter the data
- How to process the data (processing details)
- How to take out the reports

3.5.9 Maintenance

- Maintenance is necessary to eliminate errors in the system during its working life and to tune the system to any variations in its working environment. It has been seen that there are always some errors found in the system that must be noted and corrected
- Studying the performance

If a major change to a system is needed, a new project may have to be set up to carry out the change. The new project will then proceed through all the above life cycle phases.

3.6 Conclusion

System analysis is an important part of the project. System analysis is needed for designing and implementing of the project. The problems are analyzed to determine the nature of the system. System Analysis finds the different phase of a system and components of system design.

CHAPTER 4

SYSTEM DESIGN

4.1 Introduction

In System Design the proposed system will be defined as tasks that focus on the specification of a detailed computer based solutions. System design is the most important phase of the System Development Life Cycle. It provides the understanding and procedural details necessary for implementing the system recommended in the feasibility study. Emphasis is on translating the performance requirements into design specifications. The data catalogue of the proposed system will be defined and the relationship between the entities through the constraints will be identified. Hence, the above analytical phase will now be converted to a database structure in order to provide a proposed system the functionality to deliver data from a centralized database. [15]

4.2 Entity Relationship Diagram

An entity is a ‘thing’ about which an organization holds information. Entity modeling is a technique for showing relationship between entities. Entity analysis is the process by which the model is developed, and identifies the underlying structure of the data and relationship of those data. The diagram produced from the modeling is called the Entity Relationship Diagram [16].

The system has the following Entity-

1. User info
2. Story
3. Story word
4. Word synonym
5. Word context sentence
6. Word common
7. Student Progress
8. Student Quiz data

4.2.1 Entity's Attributes List

In this system, there are entity attribute lists. Registration entity attribute list contains thirteen attributes. Booking entity attribute list contains seven attributes. Flat entity attribute list contains eight attributes. Shop entity attribute list contains seven attributes. Project entity attribute list contains ten attributes.

Entity attribute lists of the system are given below-

<p><u>Name: User Info</u></p> <ol style="list-style-type: none">1. id2. user_name3. user_email3. user_password4. user_phone5. user_type6. user_status7. creation_date	<p><u>Name: Story</u></p> <ol style="list-style-type: none">1. id2. teacher_ref_id3. title_story4. last_update5. status	<p><u>Name: story word</u></p> <ol style="list-style-type: none">1. id2. story_ref_id3. teacher_ref_id4. word5. status6. published
<p><u>Name: word synonym</u></p> <ol style="list-style-type: none">1. id2. word_ref_id3. synonym4. status	<p><u>Name: word context sentence</u></p> <ol style="list-style-type: none">1. id2. word_ref_id3. sentence4. status	<p><u>Name: word common</u></p> <ol style="list-style-type: none">1. id2. word3. status

Name: student_quizdata

1. id
2. student_ref_id
3. story_ref_id
4. word_ref_id
5. select_synonym
6. ans_synonym
7. select_sentence
8. ans_sentence
9. status

Name: student_prograss

- 1.id
- 2.student_ref_id
- 3.story_ref_id
- 4.right_synonym
- 5.right_sentence
- 6.total_right_answer
- 7.dates
- 8.status

4.2.2 Entity Relationship Diagram (Database view)E-R Diagram of English Language Learning System is given below

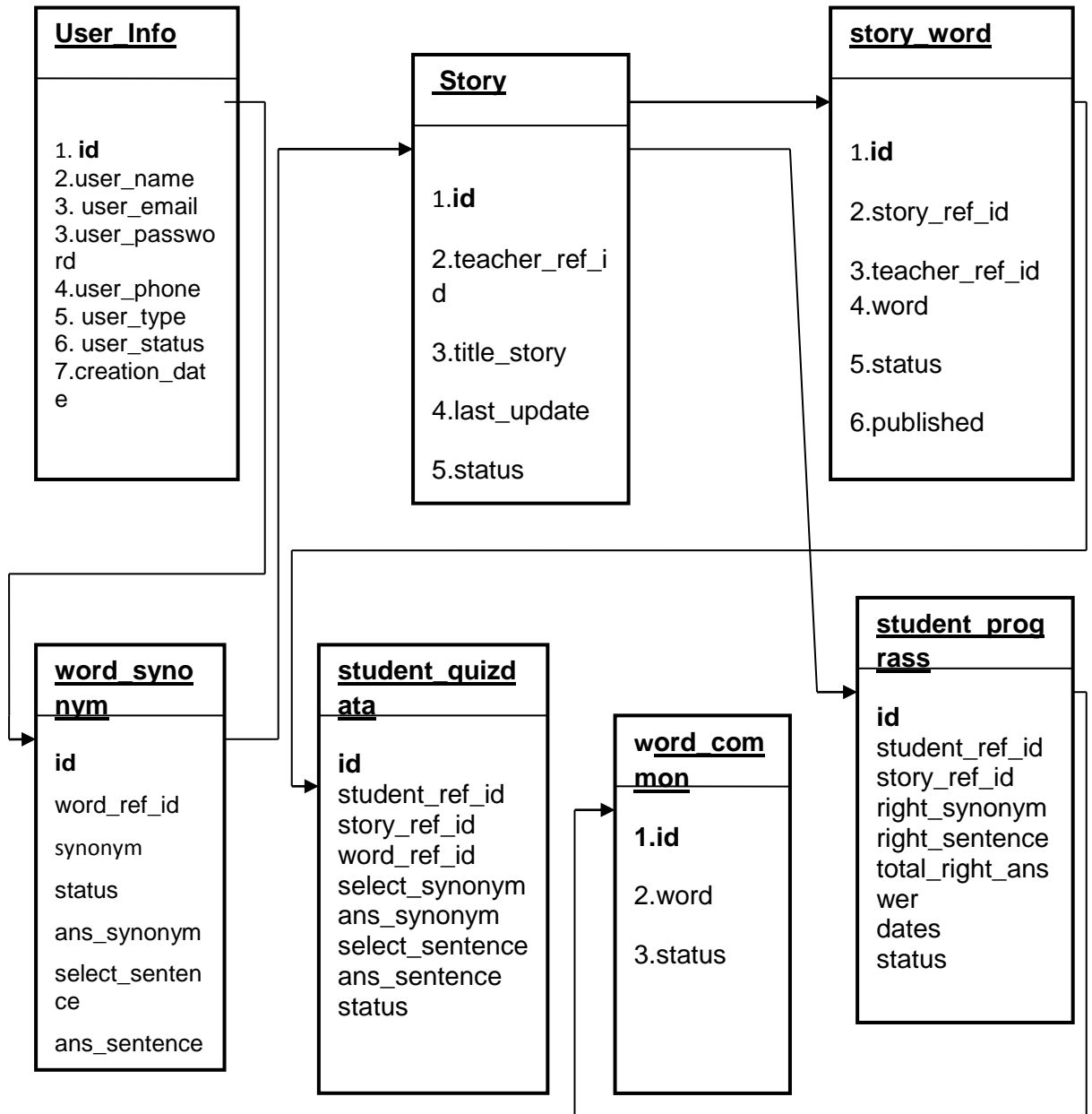


Figure 4.2: E-R diagram of Proposed System (Database view)

In the following figure we will encounter another style of E-R diagram. Point to be noted that both type of E-R diagrams are universally recognized; first one is done by SQL query language and the second one is done in database view.

4.3 Data Flow Diagram

A data flow diagram is a way to define the system requirements and major transformation in a system by a graphical representation. It is one of the most important modeling tools used by the system analysts. The utilization of data flow diagram as modeling tools becomes commonplace largely due to DeMacro (1978) and Jane and Sarson through their structured system analysis methodologies. They suggested that a data flow diagram should be the first tool used by the system analysts to model system components [13].

Data flow diagram of the proposed system is given below which define the system requirements and major transformation in a system by a graphical representation.

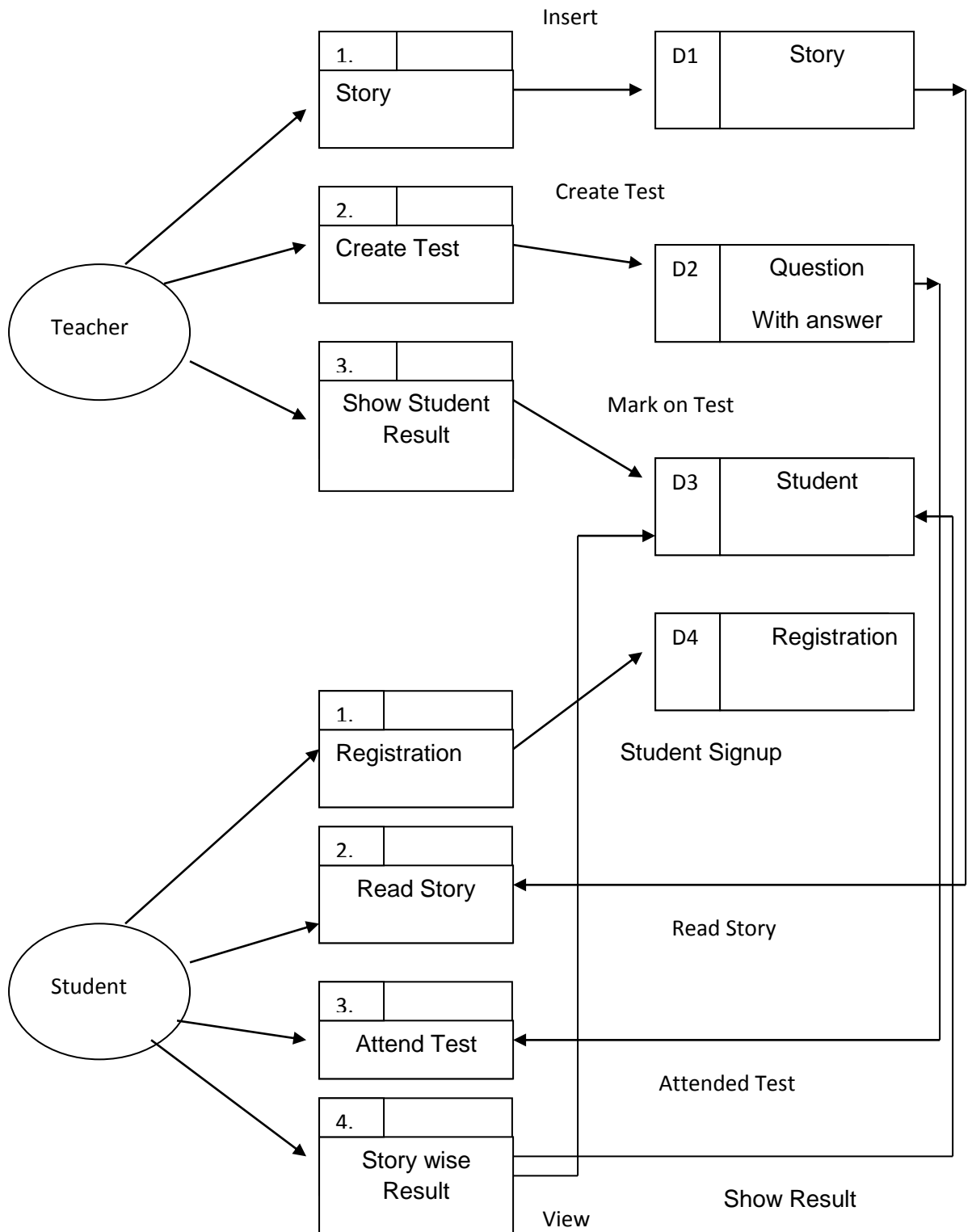


Figure 4.3: Data Flow Diagram

4.4 Database Design

The structure of a database that consists of a collection of conceptual tools for describing data, data relationship, data semantics and consistency is known as data model [14].

4.5 Use Case Diagram of Proposed System

There are mainly two kind of user: 1.Administrator or Teacher and 2.User or Student.

So to Create use case model, the analyst must first identify the different types of people that use the system. These actions actually represent the procedures, which people have to follow to operate the system. Use case describes scenarios that will be perceived differently by different actors.

In our project there are three actors who execute their performance according to their sections. These are

- Administrator
- Teacher
- User/ Student

Use Case Diagram of Proposed System

There are mainly two kind of user: 1.Administrator or Teacher and 2.User or Student.

- Administrator/ Teacher
- User/ Student

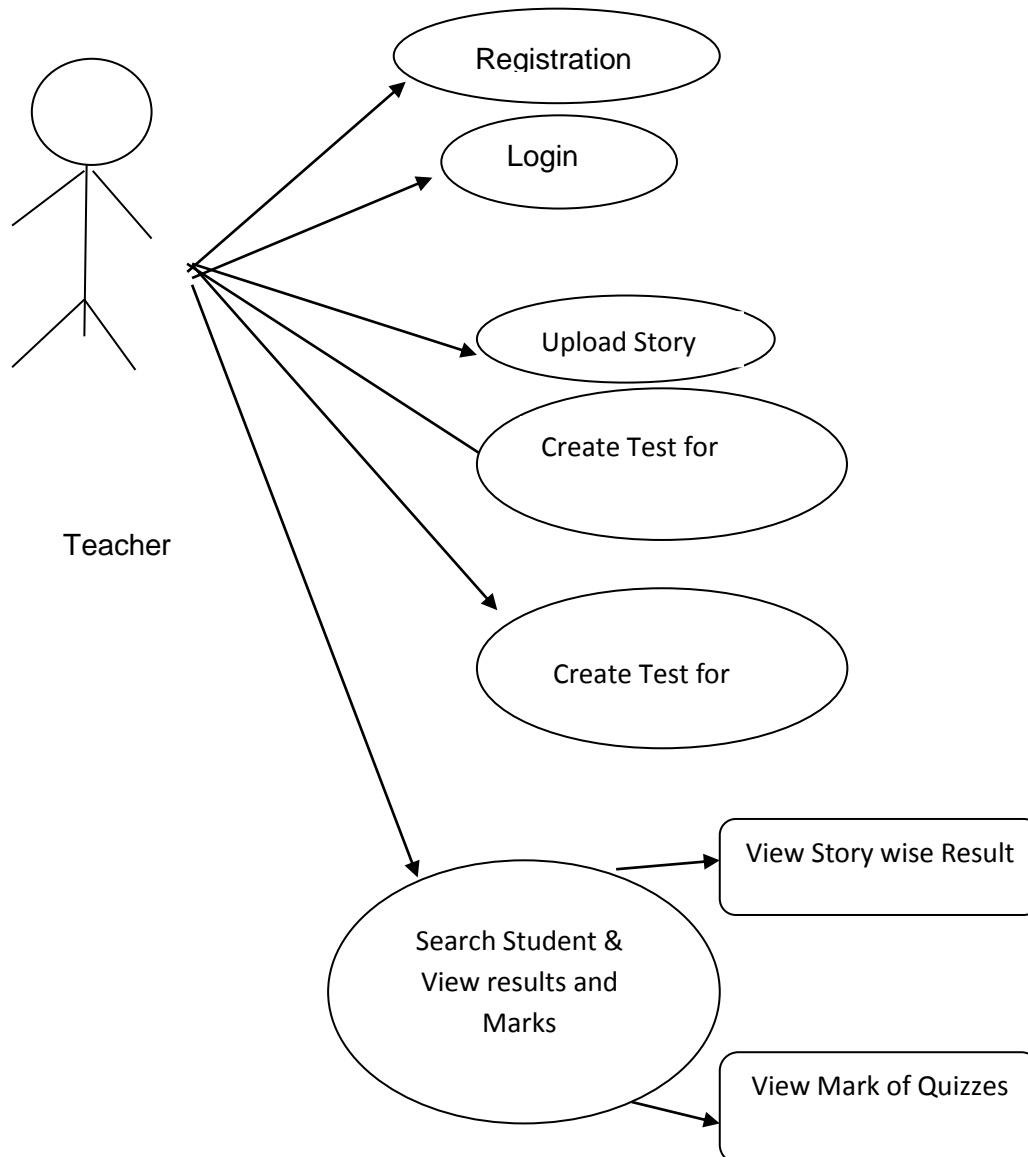


Figure 4.4: Use Case Model for Teacher Part

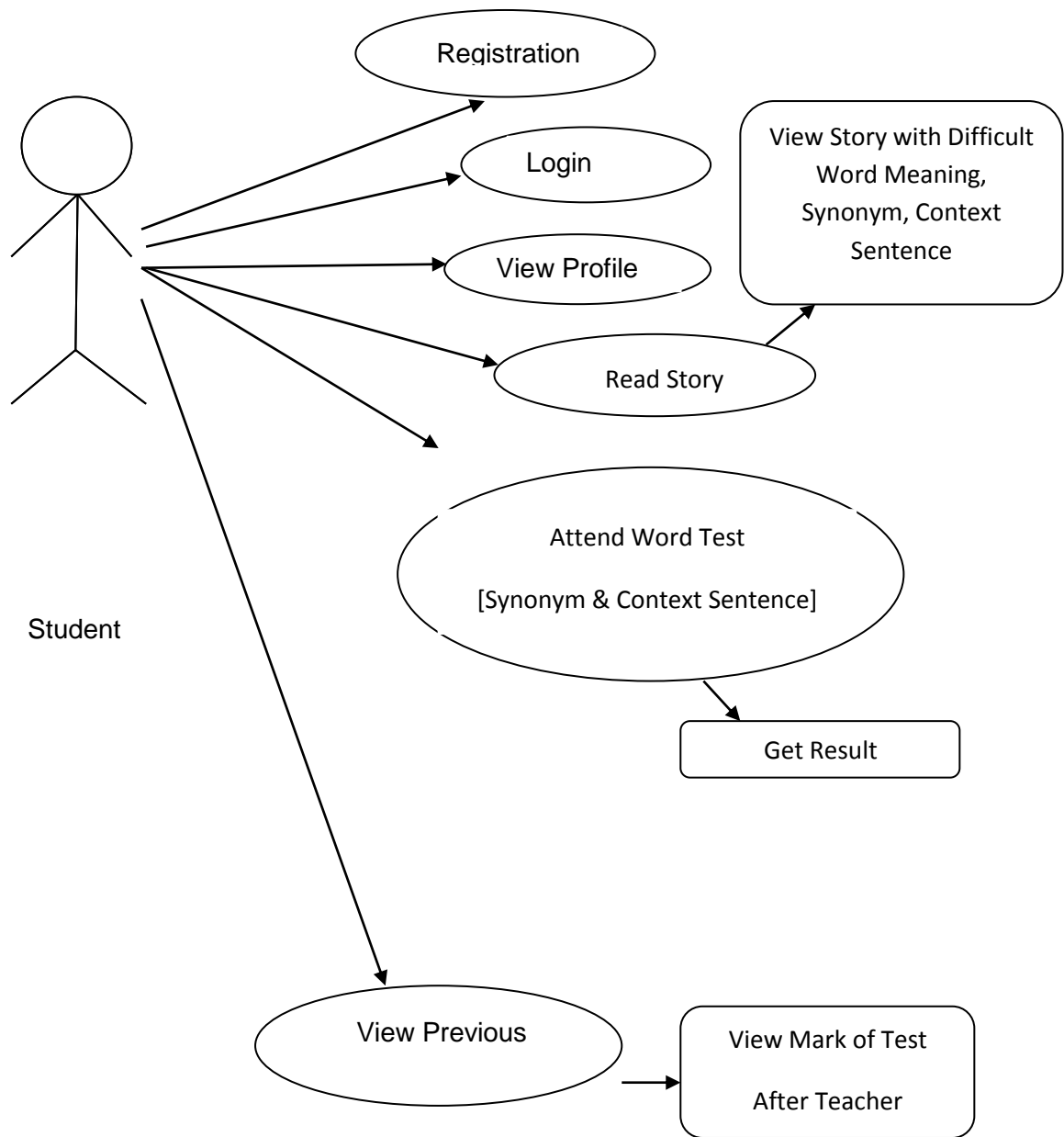


Figure 4.5: Use Case Model for Student Part

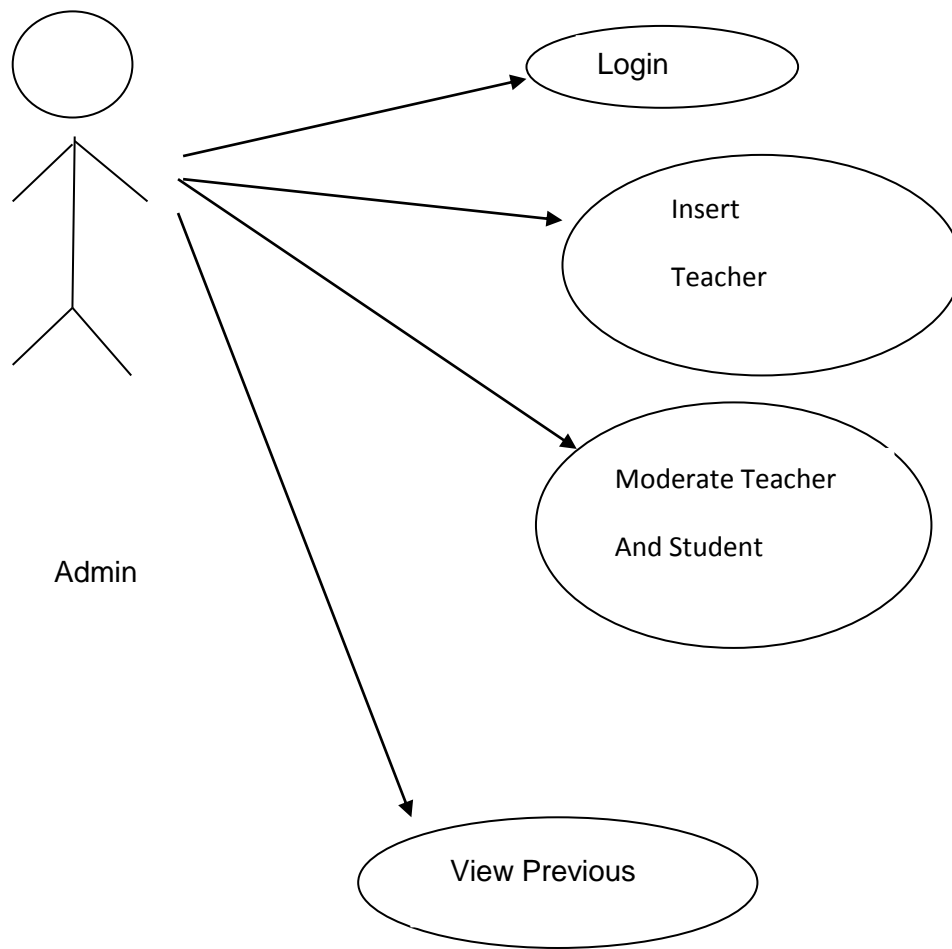


Figure 4.6: Use Case Model for Admin Part

4.6 Conclusion

System design is an important phase in System Development Life Cycle (SDLC). So the procedures should be followed properly in order to get an appropriate system design. An accurate system design can only produce efficient system.

CHAPTER 5

DEVELOPMENT & IMPLEMENTATION

5.1 Introduction

When system is completed and tested, the system is ready for implementation stage. Different strategic decision should be made for successful implementation of the project. When the system is running in real world situation there should be mechanism for periodic checking of the system. In this process the system is reviewed time to time and the system is changed according to change request doing implementation. Now we discuss the development and implementation of this system.

5.2 Developing Tools

In our system, our **supporting** development tools are Code igniter Freamwork, MySQL, CSS, HTML, Macromedia Dreamweaver and Apache Server. Here those development tools are described-

5.2.1 CodeIgniter (MVC framework)

CodeIgniter is a powerful PHP framework with a very small footprint, built for PHP coders who need a simple and elegant toolkit to create full-featured web applications. If you're a developer who lives in the real world of shared hosting accounts and clients with deadlines, and if you're tired of ponderously large and thoroughly undocumented frameworks

CodeIgniter is based on the Model-View-Controller development pattern. MVC is a software approach that separates application logic from presentation. In practice, it

permits your web pages to contain minimal scripting since the presentation is separate from the PHP scripting.

- The **Model** represents your data structures. Typically your model classes will contain functions that help you retrieve, insert, and update information in your database.
- The **View** is the information that is being presented to a user. A View will normally be a web page, but in CodeIgniter, a view can also be a page fragment like a header or footer. It can also be an RSS page, or any other type of "page".
- The **Controller** serves as an *intermediary* between the Model, the View, and any other resources needed to process the HTTP request and generate a web page.

CodeIgniter has a fairly loose approach to MVC since Models are not required. If you don't need the added separation, or find that maintaining models requires more complexity than you want, you can ignore them and build your application minimally using Controllers and Views. CodeIgniter also enables you to incorporate your own existing scripts, or even develop core libraries for the system, enabling you to work in a way that makes the most sense to you.

5.2.2 MySQL

The 'MySQL (TM)' software delivers a very fast, multi-threaded, multi-user, and robust 'SQL' ('Structured Query Language') database server. MySQL is the most popular DBMS in web application development, was first released initially on 23 May 1995. 'MySQL Server' is intended for mission-critical, heavy-load production systems as well as for embedding into mass-deployed software. Users can choose to use the 'MySQL' software as an 'Open Source'/'Free Software' product under the terms of the 'GNU General Public License'. MySQL supports cross platform [16].

MySQL is an SQL based relational database management system (DBMS) that runs under a broad array of operating systems. MySQL is frequently used by PHP and Perl

scripts. The focus is on Windows XP Professional and Windows 2000 Professional machines [16].

5.2.2.1 Advantages

Following are the features of MySQL:

- Faster than Oracle, ODBC, Sybase
- Open source relational database.
- MySQL is characterized as free
- Reliable because it is open source
- Platform independent: Windows, Linux, MacOS, OS/2
- Robust database with a good feature set.

5.2.3 Apache

Apache is the most widely available HTTP server on the Internet. It supports the PERL and PHP languages. Apache is an open-source (source code is freely available and can be shared) HTTP Web server software. It is currently the most popular web server on the Net. It is usually run on UNIX operating system versions like Linux or BSD, but it can also be run on Windows. It is a full-featured server with many powerful add-ons freely available. Apache's major competitor is Microsoft's IIS [13].

The Apache HTTP Server Project is an effort to develop and maintain an open-source HTTP server for modern operating systems including UNIX and Windows NT. The goal of this project is to provide a secure, efficient and extensible server that provides HTTP services in sync with the current HTTP standards [13].

5.2.4 Macromedia Dreamweaver

Macromedia Dreamweaver is a site building and publishing tool appropriate for intermediate to advanced users that allows you to create and edit web pages and

applications using a graphical interface and built-in advanced design and coding features [14].

In addition to drag-and-drop features that help you build web pages, Dreamweaver provides a full-featured coding environment that includes code-editing tools such as code coloring, tag completion, a coding toolbar, and code collapse. Also provided is language reference material about Cascading Style Sheets (CSS), JavaScript, ColdFusion Markup Language (CFML), and other languages. Macromedia Roundtrip HTML technology imports your hand-coded HTML documents without reformatting the code; you can then reformat code with your preferred formatting style.

Dreamweaver also lets you build dynamic, database-driven web applications using server technologies such as CFML, ASP.NET, ASP, JSP, and PHP. If you prefer working with XML data, Dreamweaver provides tools that let you easily create XSLT pages, attach XML files, and display XML data on your web pages [15].

Dreamweaver is fully customizable. Using new behaviors, Property inspectors, and site reports, you can create your own objects and commands, modify keyboard shortcuts, and even write JavaScript code to extend Dreamweaver capabilities.

5.2.5 Cascading Style Sheets (CSS)

In web development, Cascading Style Sheets (CSS) is a style sheet language used to describe the presentation of a document written in a markup language. It's most common application is to style web pages written in HTML and XHTML, but the language can be applied to any kind of XML document, including SVG and XUL.

CSS is used by both the authors and readers of web pages to define colors, fonts, layout, and other aspects of document presentation. It is designed primarily to enable the separation of document content (written in HTML or a similar markup language) from document presentation (written in CSS). This separation can improve content accessibility, provide more flexibility and control in the specification of presentational characteristics, and reduce complexity and repetition in the structural content. CSS can also allow the same markup page to be presented in different styles for different rendering methods, such as on-screen, in print, by voice (when read out by a speech-based browser or screen reader) and on Braille-based, tactile devices. CSS specifies a priority scheme to determine which style rules apply if more than one rule matches against a particular element [16].

5.2.6 Hypertext Markup Language (HTML)

HTML - Short for the Hyper Text Markup Language, the language by which Web servers and client browsers communicate. HTML files are plain text files, so they can be composed and edited in different types of operating systems. [13]

HTML is the "mother tongue" of our browser. To make a long story short, HTML was invented in 1990 by a scientist called Tim Berners-Lee. The purpose was to make it easier for scientists at different universities to gain access to each other's research documents. The project became a bigger success than Tim Berners-Lee had ever imagined. By inventing HTML he laid the foundation for the web as we know it today.

HTML is a language, which makes it possible to present information (e.g. scientific research) on the Internet. What you see when you view a page on the Internet is your browser's interpretation of HTML. To see the HTML code of a page on the Internet, simply click "View" in the top menu of your browser and choose "Source".[13]

5.2.6.1 Html Necessitate

Hyper is the opposite of linear. In the good old days - when a mouse was something the cat chased - computer programs ran linearly: when the program had executed one action it went to the next line and after that, the next line and so on. But HTML is different - you can go wherever you want and whenever you want. For example, it is not necessary to visit MSN.com before you visit HTML.net.

If we want to make websites, there is no way around HTML. Even if we are using a program to create websites, such as Dream weaver, a basic knowledge of HTML can make life a lot simpler and our website a lot better. The good news is that HTML is easy to learn and use. HTML is used to make websites.

Text is self-explanatory.

Mark-up is what you do with the text. You are marking up the text the same way you do in a text editing program with headings, bullets and bold text and so on.

Language is what HTML is. It uses many English words.

5.3 Implementation

Implementation is the process of cut-over from the old system to the new system. This will include planning for the transfer and conversion of data and the involvement of stuff.

5.3.1 Adding Computer and Server

There will be Pc's for different personnel with a LAN. There must be internet connection from an ISP (Internet Service Provider). Company can set up there own DNS Server and WEB server or can use ISP's servers.

5.3.2 Training

User need to be trained, they needs training for how they operate the system. That ensures user accidentally no damage for the system and lost any data. Also need training manager and operator to operate the system effectively. There will be a formal training for the users and also informal training throughout the implementation.

5.3.2.1 Training users

The implementation process cannot be fulfilled without instruction process. Users who are involved to the system, Students and Administrator or teacher they will have to be noticed on their specific field, they will have knowledge how the system is operated.

5.3.2.2 Training Plan

- Instruct them how to upload content to the new system
- Give a briefing about the operation of the newly developed system.
- Brief them about the possible error that may occur and the solution.

5.3.3 Installation System

The new system needs to installation for that new computer and need to examine that the system how behavior with the new computer. The network should be installed as well as the client. The entire Pc will have only the client part of the software. At first we need to develop a LAN with NAT router to connect with ISP. Then after installing the each machine configuring, software will be install. It needs the apache web server, Codeigniter, MySQL to run the system.

5.4 Conclusion

Here we discuss those tools (PHP, MySQL, and Apache Server) which are used for implementing this system. A formal process topically terminates the implementation phase.

CHAPTER 6

TESTING

6.1 Testing

Software testing is a critical element of software quality assurance and represents the ultimate review of specification design, and code generation. The increasing visibility of software as a system element and the attendant "costs" associated with a software failure are motivating forces for well-planned, thorough testing. It is not unusual for a software development organization to expend between 30 and 40 percent of total project effort on testing. In the extreme, testing of human-rated software can cost three to five times as much as all other software engineering steps combined!

6.2 Testing Objectives

There are many objectives to test the system-

- Testing is a process of executing a program with the intent of finding an error.
- A good test case is one that has a high probability of finding an as-yet undiscovered error.
- A successful test is one that uncovers an as-yet undiscovered error.

6.3 Testing strategies

Testing is a very big stage and to test fully a system it needs lots of time to spend on testing. Delivery time is limited for our project, most of time gone to analysis, development and Design. Here it is planned for some testing. A number of software testing strategies have been proposed in the literature. All provide the software developer with a template for testing and all have the following generic characteristics:

- Testing begins at the component level² and works "outward" toward the integration of the entire computer-based system.
- Different testing techniques are appropriate at different points in time.
- Testing is conducted by the developer of the software and
- Testing and debugging are different activities, but debugging must be accommodated in any testing strategy.

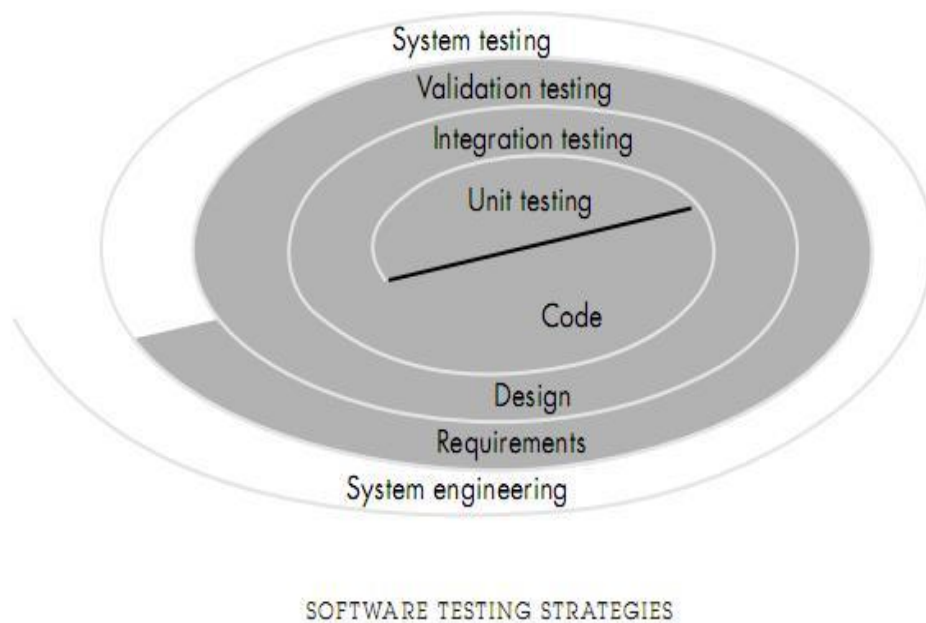


Figure 6.1: Software Testing Strategies

6.3.1 Unit Testing

In computer programming, unit testing is a procedure used to validate that individual unit of source code is working properly. Unit testing is a software development process in which the smallest testable parts of an application, called units, are individually and independently scrutinized for proper operation. Unit testing is often automated but it can also be done manually. This testing mode is a component of Extreme Programming (XP), a pragmatic method of software development that takes a meticulous approach to building a product by means of continual testing and revision[14].

6.3.2 Integration Testing

Integration testing, also known as integration and testing (I&T), is a software development process which program units are combined and tested as groups in multiple ways. Integration testing can expose problems with the interfaces among program components before trouble occurs in real-world program execution. Integration testing is a component of Extreme Programming (XP), a pragmatic method of software development that takes a meticulous approach to building a product by means of continual testing and revision [14].

6.3.3 Validation Testing

At the culmination of integration testing, software is completely assembled as a package, interfacing errors have been uncovered and corrected, and a final series of software tests validation testing may begin. Validation can be defined in many ways, but a simple (albeit harsh) definition is that validation succeeds when software functions in a manner that can be reasonably expected by the customer.

6.3.4 System Testing

System Testing is actually a series of different tests whose primary purpose is to fully exercise the computer-based system. Although each test has a different purpose, all work to verify that system elements have been properly integrated and perform allocated functions. There are four types of system testing [14].

6.4 Application Testing

We are have tested our Guess and check method project from two aspects.

6.4.1 Teacher

- From the aspects of a teacher or admin we have tested that whether teacher is able to upload story, difficult word, word synonym, sentence to specific level or not.
- We have tested that whether the teacher is able to track student activities or not.
- We also tested that whether teacher is able create quiz or not.

6.4.2 Student

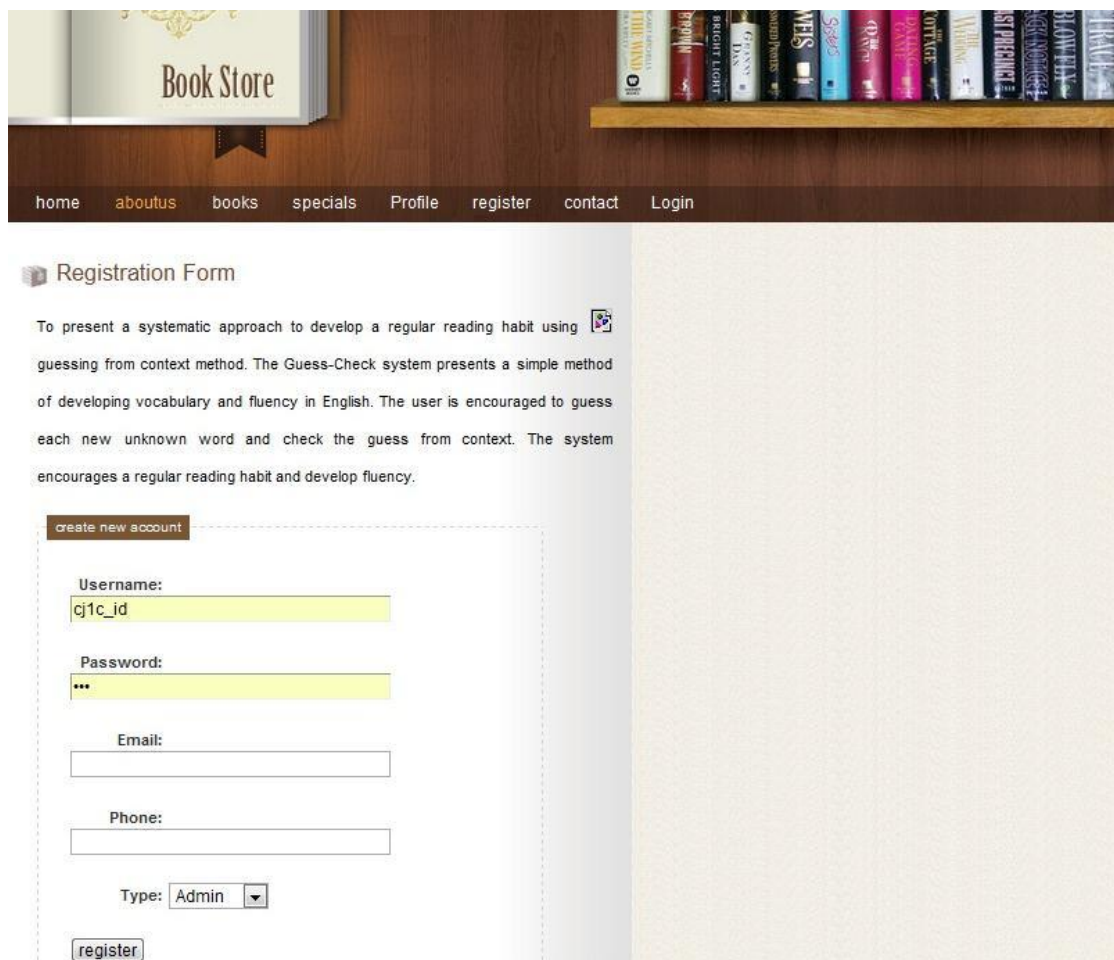
- From the aspects of a student we have tested that whether he/she can access the story or not.
- And we have tested that whether they could take part on quiz or not properly.
- And also tested that he or she can participate in report activities.

We are very happy to say that our project has passed the testing from each aspect.

6.5 Testing Of Guess and Check

We have designed a distinctive user interface for our English Language Learning system.

6.5.1 Guess and Check HOME PAGE



The image shows a web application interface for a 'Book Store'. At the top, there is a navigation menu with links: home, aboutus, books, specials, Profile, register, contact, and Login. Below the navigation is a 'Registration Form' section. The form contains the following fields and elements:

- A heading: 'Registration Form' with a small icon.
- Introductory text: 'To present a systematic approach to develop a regular reading habit using guessing from context method. The Guess-Check system presents a simple method of developing vocabulary and fluency in English. The user is encouraged to guess each new unknown word and check the guess from context. The system encourages a regular reading habit and develop fluency.'
- A 'create new account' button.
- 'Username:' field with the value 'cj1c_id'.
- 'Password:' field with masked characters '***'.
- 'Email:' field.
- 'Phone:' field.
- 'Type:' dropdown menu with 'Admin' selected.
- A 'register' button.


Figure 6.2: Layout of Home Page

6.5.2 Student Registration

Book Store

home aboutus books specials Profile register contact Login

Registration Form

To present a systematic approach to develop a regular reading habit using  guessing from context method. The Guess-Check system presents a simple method of developing vocabulary and fluency in English. The user is encouraged to guess each new unknown word and check the guess from context. The system encourages a regular reading habit and develop fluency.

create new account

Username:

Password:

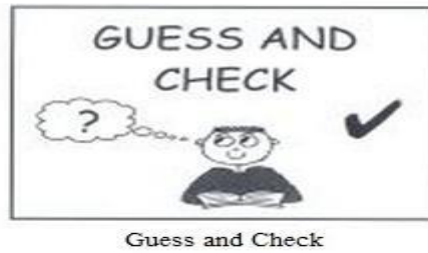
Email:

Phone:

Type: Admin

Figure 6.3: Layout of Student Registration Page

6.5.3 Student Login



Login Page

User Email

Password

Figure 6.4: Layout of Student Login Page

6.5.5 Student Reading Story Book

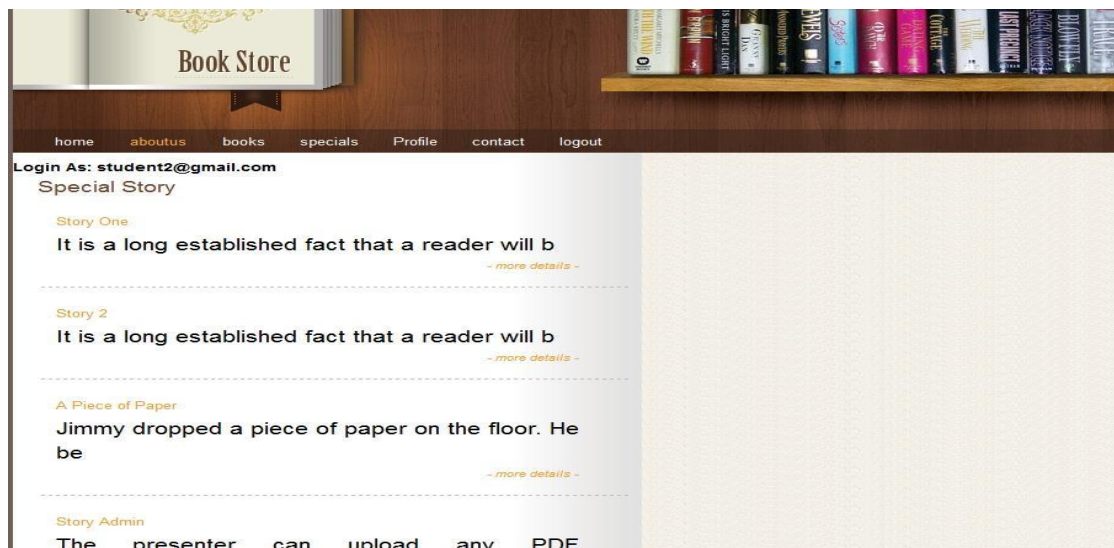


Figure 6.6: Layout of Student Books View Page

6.5.6 Student Select Quiz

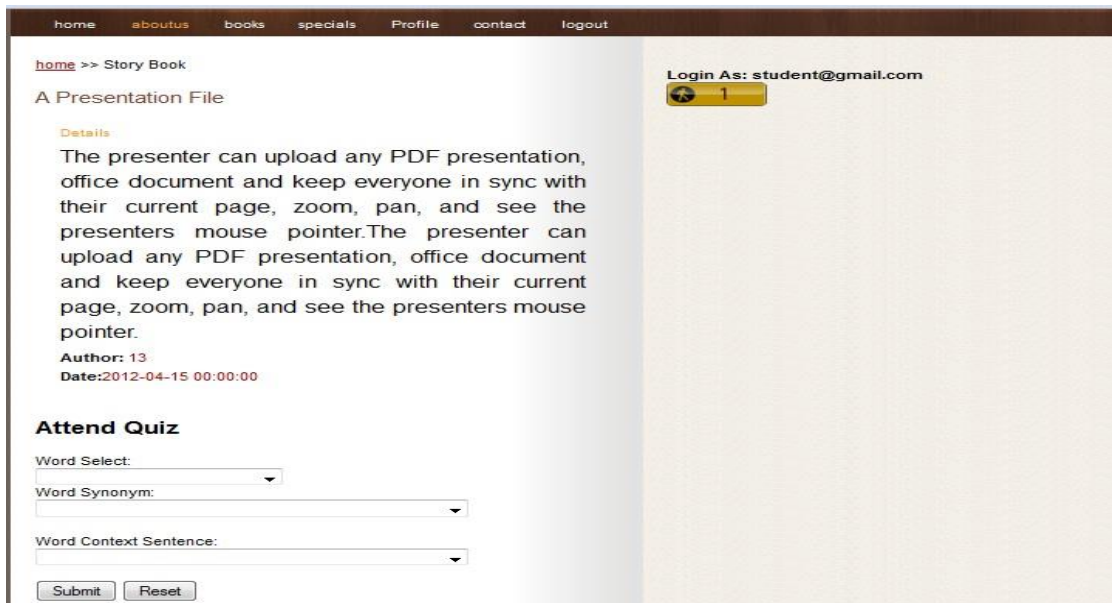


Figure 6.7: Layout of Student Selecting Quizzes Page

6.5.7 Student Attend Quiz

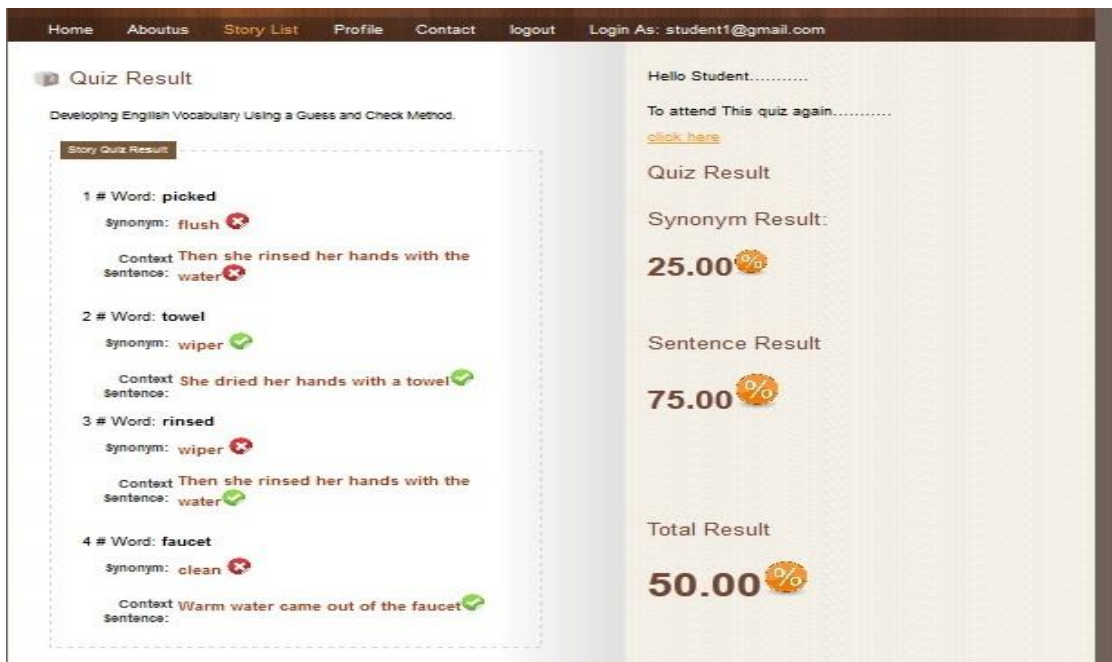


Figure 6.8: Layout of Student Attending Quizzes Mark

6.6 Teacher Part

6.6.1 Teacher Profile After login

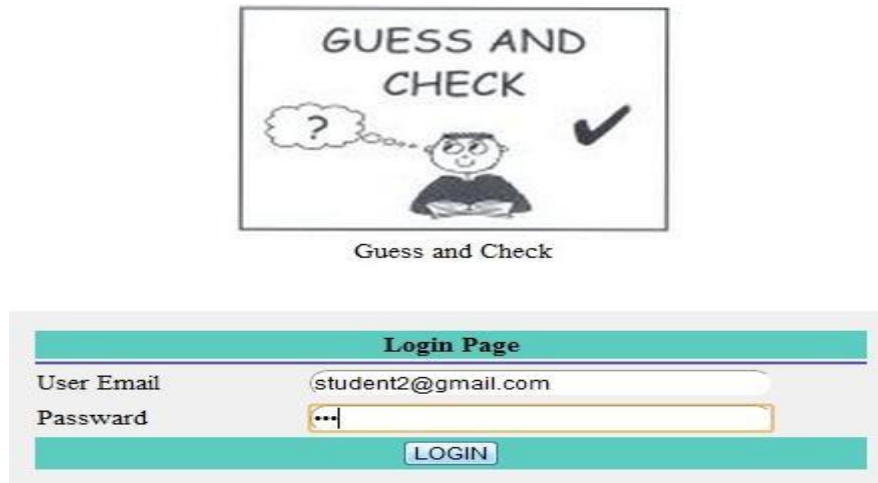


Figure 6.11: Layout of Teacher Profile Page

6.6.2 Teacher Upload Story Book: (Text)

Admin | admin@gmail.com Logout

Dashboard | **User Insert** | User List | Story Insert | Story List

User table						
#	Story Title	Update Date	Status	Teacher ID	Edit	Approved
1	Story 1	2012-04-15 22:40:59	Active	1	Edit	Block / Public
2	Story 2	2012-04-15 08:07:24	Block	11	Edit	Block / Public
3	A Piece of Paper	2012-04-15 07:30:12	Active	13	Edit	Block / Public
4	Story Admin	2012-04-15 00:00:00	Active	11	Edit	Block / Public
5	A Presentation File	2012-04-15 00:00:00	Active	13	Edit	Block / Public
6	A long established fact	2012-04-15 00:00:00	Active	11	Edit	Block / Public
7	Washing Her Hands	2012-04-11 00:00:00	Active	13	Edit	Block / Public
8	New Shoes	2012-04-11 00:00:00	Active	13	Edit	Block / Public

Figure 6.12: Layout of Teacher Book Uploading Page

6.6.3 Teacher Create Quizzes

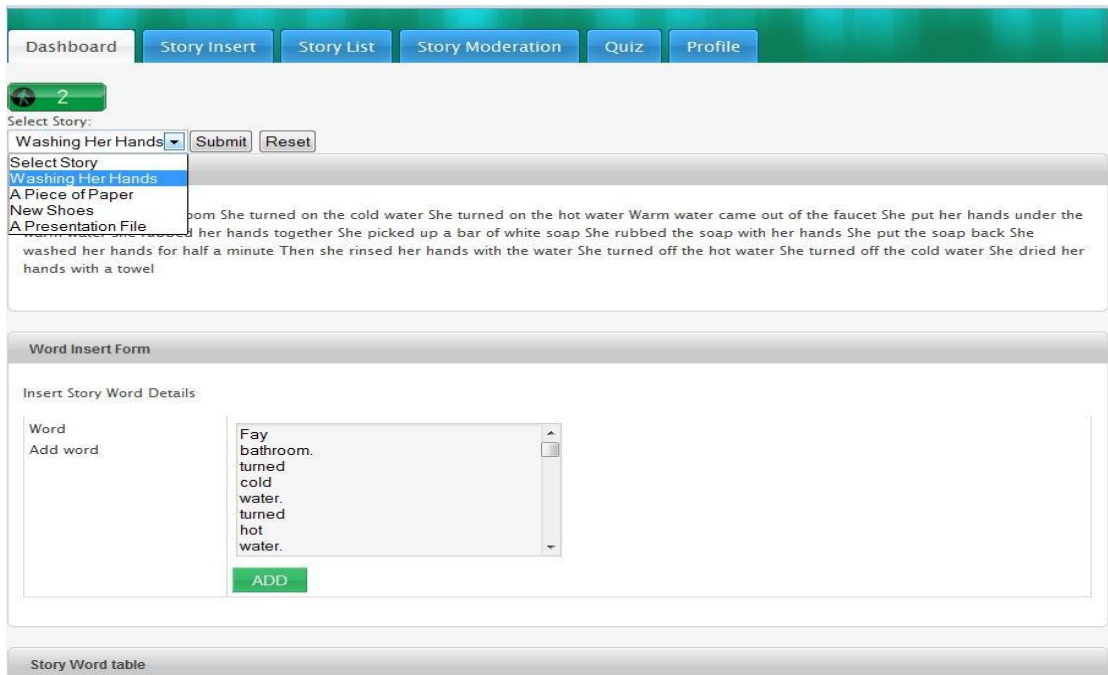


Figure 6.13: Layout of Creating Quizzes Page

6.6.4 Teacher Edit word

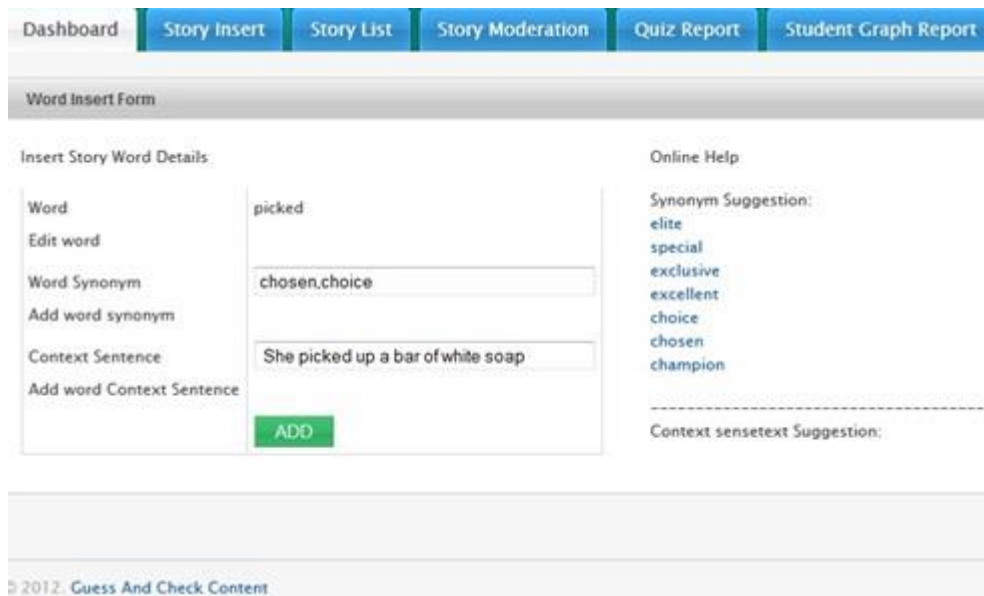


Figure 6.15: Layout of Student Tracking Page on Teacher Page

6.6.5 Teacher Show student Mark

To Get story Report Student Graph Report

Select Story
Select Student

Story Title : Washing Her Hands

No	Date	Synonym Marks	Sentence Marks	Total Marks	Student Name
1	2012-09-28	33.33 %	33.33 %	80.00 %	Aswadia
2	2012-09-25	33.33 %	33.33 %	73.33 %	Aswadia
3	2012-09-11	66.67 %	33.33 %	50.00 %	Aswadia
4	2012-09-03	33.33 %	33.33 %	33.33 %	Aswadia

Figure 6.16: Layout of Student Tracking Page on Teacher Page

6.6.6 Teacher Show Report Graph View



Figure 6.17: Layout of Student Tracking Page on Teacher Page

6.7 Conclusion

This stage tests most of the functions of the proposed system by valid and invalid input of data. All the tested function is primarily working correctly. So I can come to the decision that the system is now ready for live implementation. And the testing helped to prove that the “**Development of Web-based portal for enhancing English vocabulary through a Guess and Check Method**” met its specification and carried out showed that the system is working correctly and performing the required functions. Testing would be carried out by the user using a testing procedure defining the specific test cases and the user, student and teacher will also be invited to try any other test that wish to ensure that all elements of the system are completed and working correctly.

In this chapter we wanted to give a clear concept about the interface of Guess and Check method too. The screen shots will help us to understand the total process.

CHAPTER 7

GOALS AND LIMITATION

7.1 Goals of Guess and Check Method

- ❑ To Implement a web-based system for COMMUNICATIVE LEARNING.
- ❑ To guide learners in effective way of improving their language ability.
- ❑ Encouraging Learners to stay with English environment.
- ❑ Give opportunities to produce **meaningful output** and receive feedback.
- ❑ Various topics to discuss rather than fixed speech.

7.2 Limitations

Problems are everywhere- we also face some problem during completion of this web-based project. There are some limitations in our project-

- We have taken long time for planning our system design.
- We didn't find enough short story. Most of the standard books are expensive to download.
- We couldn't attach any video files in our system. We want to add this option in future.

To make this Guess and Check Method as a complete system we will try our best to overcome these limitations as really as possible.

CHAPTER 8

CONCLUSION

The world as well as the technology is changing rapidly. It is so rapid that before being familiar with one technology another is coming. So what we are thinking today will be obsolete tomorrow. And the traditional system of learning has to be changed for effective learning.

Our mission and vision will be towards creating an environment for self learning of the English Language. It is just the beginning and we hope in near future impact of this application will be loud to all.

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