

## ACKNOWLEDGEMENT

The successful completion of this internship report would not have been possible without the support and assistance of many individuals and organizations. I feel immensely blessed to have gotten this during the course of my internship program. I would like to take this opportunity to offer my earnest admiration to each and every one of them.

First and foremost, I am highly indebted to **Mr. Bidur Poudel** who took confidence in me and provided me with the opportunity to work as an Intern at Happy Hue Production Pvt. Ltd. I had a wonderful and an unforgettable experience being part of such a lovely and lively team.

I express my sentiment of gratitude to **Mr. Bibhu Poudel**, an acclaimed Internet Marketer, who has been a continuous source of inspiration as my intern mentor. Without his constant guidance and suggestions, this report would have been nowhere near completion. My gratitude for his trust and generosity goes beyond words. My special thanks to **Mr. Bagawan Subedhi** and **Mr. Abhishek Sapkota** for their constant guidance towards preparing this report standard as per the norms and values. Finally, my thanks and appreciations go to each and every one of my colleagues, and the entire Happy Hues IT team, who irrespective of the situation, always encouraged and supported me to prepare this report.

## **ABSTRACT**

Happy Hue Production Pvt. Ltd. is a group of people passionate about web and production. They believe in the idea of making the product more entertaining, interesting and appealing. As a creative agency, they are sure that with clients who are as passionate as they are, can achieve the very best result.

They take each and every project as a new adventure. It is a new chance to learn, create something interesting and unique. Every project they undertake will have a team of experts who can design your project in the most creative and professional way.

The advent of Web and Videography has fundamentally changed the way organizations approach their prospective customers. In today's digital world, reachability and visibility are critical to the growth and success of any business, which is why increasing number of IT firms are employing various digital channels to appeal to sets of potential clients Digital Marketing encompasses all marketing efforts that use an electronic device or internet. Business leverage digital channels such as search engine, social media, email, and their websites to connect with current and prospective customers.

The author completed his Internship program in Web Development, and this report basically outlines Web Development activities carried out by the author at Happy Hue Production Pvt. Ltd. It spans the use of Web Development strategy implemented to improve the overall online presence of websites, and tools that were used to monitor, analyze and test the results.

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## **LIST OF ABBREVIATIONS**

**HTML** Hyper Text Markup Language

**CSS** Cascade Style Sheet

**PHP** Preprocess Hypertext

**AJAX** Asynchronous Javascript and XML

**JSON** Javascript Object Notation

**OS** Operating System

**JAD** Joint Application Development



# **CHAPTER ONE**

## **INTRODUCTION**

### **1.Introduction of Internship**

Internships are formal programs designed to provide practical experience in real world environment to students who are new to that field. Internships help build competent résumé by giving students visible work experience. Although colleges and universities assists students in finding the right Internship programs, it is the responsibility of the would-be interns to carefully examine internship programs, and see if those programs actually offer the training(s) they need. There is no standardized duration for how long an Internship program lasts but typically an Internship is the period of three to twelve months. During this period, interns have the opportunity to explore their field of interest, find out what future they are diving into and whether or not their skill sets match their path of career. Internship program provides a distinct platform to interns to build a solid foundation to their career, understand the workplace culture, gain vital work-related experience, develop relevant skills, and also presents the opportunity to find permanent employment in the host

Company.

The major benefits of Internship program that a student can get include: -

- Students can learn about the workplace culture and gain much needed work experience to compete in the job market.
- Students can finally experience practical implementation of things they have been learning in the classroom.
- Students can build a strong foundation that will bolster their career.
- Good performance in the internship program can secure permanent employment with the host company.

#### **1.1 Purpose of Internship**

Internship program provides a new perspective to the students. It provides learning opportunities outside the boundaries of the course curriculum and classroom activities. These opportunities enhance students capability to apply theoretical understanding into real-world scenarios, thereby enhancing the students' academic and career goals From the student perspective, internship assists with career development in different diverse fields such as coding, programming, networking, marketing, etc by providing vital work experience that

allows students to explore their area of interests and develop relevant skills and competencies. From the organization perspective, internship provides a unique opportunity to train fresh talents, enhance their professional development as well as aid the professional growth of the intern mentor/supervisor. Organizations can also find potential employees within the Interns.

## **1.2 Objective of Internship**

The major objectives of internship are:

- To expose students to a particular job and a profession or industry.
- To provide students with opportunity to develop skills in the field of interest.
- To assist students in gaining vital work related experience and building strong résumé for bright career.
- To help students in developing business contacts i.e. creating network contacts.
- To help students potentially land permanent or contractual jobs from host Company.

## **1.3 Selection of Organization and Duration**

The selection of the organization is done by the students according to the area of their interest and also depends upon the willingness of a company to take a student as an intern. As a student in search of a company for internship program, students are required to prepare a competent résumé and perform well in the 'interview' and/or 'assessment'. I wanted to utilize the internship period to learn and explore about the dynamic field called "Web Development".

After exploring available options, I got the opportunity to do intern at "Happy Hues Production Pvt.Ltd" under the guidance and mentorship of Mr. Bhishu Poudel. It helped me to learn, experience and develop skills in the domain of web development. Thus, I completed my Internship program in partial fulfillment of the requirement for the Bachelor of Science in Computer Science and Information Technology (BSc.CSIT) 8th semester of Tribhuvan University, Nepal, on Web development from Happy Hues Production Pvt.Ltd. The information on duration, timing, and position is provided below:

Table 1.1 Intern Details

<b>Start date:</b>	17 st September, 2019
<b>End date:</b>	17 st December, 2019
<b>Total duration:</b>	Three months
<b>Intern Position:</b>	Web Developer
<b>Mentor:</b>	Mr. Bibhu Poudel
<b>Office hour:</b>	11:00 A.M – 5:00 P.M.

## **CHAPTER TWO**

### **COMPANY INTRODUCTION**

#### **2. Description of the Host Company**

##### **2.1 Introduction of Organization**

Happy Hue Production Pvt. Ltd. is a group of people passionate about web and Videography. They believe in the idea of making the web and Video more entertaining, interesting and appealing. As a creative agency, they are sure that with clients who are as passionate as they are, can achieve the very best result.

They take each and every project as a new adventure. It is a new chance to learn, create something interesting and unique. Every project they undertake will have a team of experts who can design your project in the most creative and professional way. Besides this, they work in the latest cutting-edge, most reliable technologies and frameworks. They mostly use Java, Nodejs, Laravel , Videography and Smart Contract Development. For the frontend, they are experts in using JS, frameworks like React, Vue, Angular, Electron and many more. The team believes in being able to work on any platform and thus, seek for learning the linguistics and core concepts rather than the syntax.

##### **2.1.1. Contact Information:**



**Happy Hue Production Pvt. Ltd.**

**Address:** Baneshwor, Kathmandu

**Telephone:** +977 9851102667

##### **2.2 Types of Organization and Ownerships**

Happy Hue Production Pvt. Ltd. is a private Software Development Company established in 2015. It is located in Baneshwor, Kathmandu, Nepal. The company handles the national as well as international projects. It mainly develop won projects. The type of ownership in the company is a Limited Liability Partnership.

## 2.3 Major Function of Organization

Happy Hue Production Pvt. Ltd. is established with the objective of transforming ideas into successful business products. Happy Hue Production is a software development and production firm which primarily uses Ruby on Rails, a Ruby framework, along with other front end and back end tools for robust web and mobile application development. The different functions and services provided by the company are listed as follows:

### 2.3.1 Services Provided

- Videography
- Photography
- Web Development
- Work with Startups

### 2.3.2 Technology Used

- Core Editing Technologies: Adobe Premiere Pro
- Web Application Technologies: AJAX, JavaScript, JSON, jQuery, CSS3, HTML5
- UI Technology: Adobe Photoshop, Adobe XD
- Database Platforms: MySQL, MySQL Server
- Operating Systems: Linux, Windows, OS X

### 2.3.3 Product Developed

As the product developed are to be kept confidential. So, the products are represented as follows:-

- Gre Vocabulary App

## 2.4 Profile of the Department Trained In

### 2.4.1 Introduction of Department

The Web Development department is led by **Mr. Bibhu Poudel** Director of at Happy Hues Production Pvt. Ltd. . The major objective of the department is to make the video and web of client's product.

The Web Development Department is responsible for making the developed application/product to be in reach of needy ones as well as promote it throughout

the internet. The department comprises of content writer, graphic designer, video maker, seo expert, web developer etc.

Web Developer encompasses all developing efforts that use an electronic device or the internet..

## **2.5 Major Function of the Department**

- Ensure that all websites and internet properties under the requirement of client.
- Ensure that developed software is graphically and visibly effective or not.
- SEO friendly product is ensure by testing team.
- Testing the app using different testing tool like (x-ray, soapui).

## **CHAPTER FOUR**

### **ANALYSIS AND DESIGN**

#### **3.1 Requirement Collection**

##### **3.1.1 Traditional Approach**

Traditionally student read vocabulary through books, dictionary and newspaper. If anyone needs to know about english words he/she simply look dictionary for meaning. Newly generated word take time to spread all over the world. Student needs simple platform to explore more.

##### **3.1.1 Morden Approach**

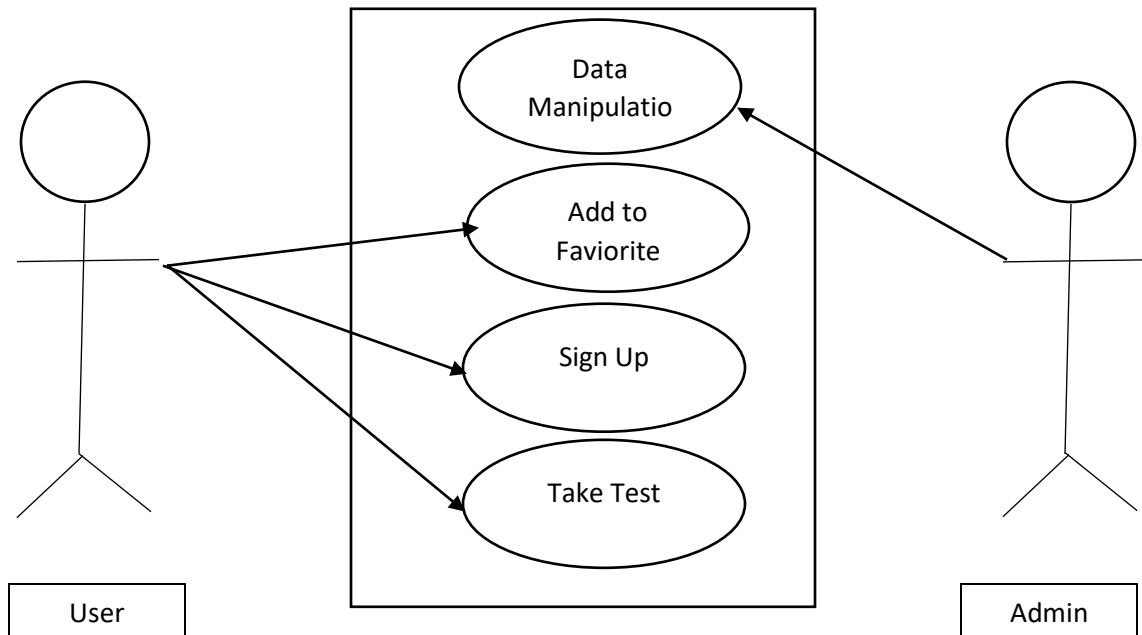
In morden approach different requirement collection technique is used. In my project requirements are already collected by different developer. Vocabulary collected by different educational institute, logical requirement is analyzed by mongos app. In my project JAD requirement analysis approach is used.

#### **3.2 System Requirements**

##### **3.2.1 Functional Requirements**

##### **3.2.1.1 Use Case Diagram**

A functional requirement is something a system must do. In this project functional requirements are:



*Figure 4.1 Use Case Diagram for System*

User can sign up to the app, take vocabulary test for progressing itself, user also can add to favorite that can review on near future. Admin is responsible for managing database, API security and data manipulation.

### **3.2.2. Other Requirements**

The non-functional requirements in content to the project are as follows:

#### **2.2.2.1 Interface**

We have user interface design using react native (Js mobile app framework).

User easily handle application with its requirements.

Figure below show web interface of project.



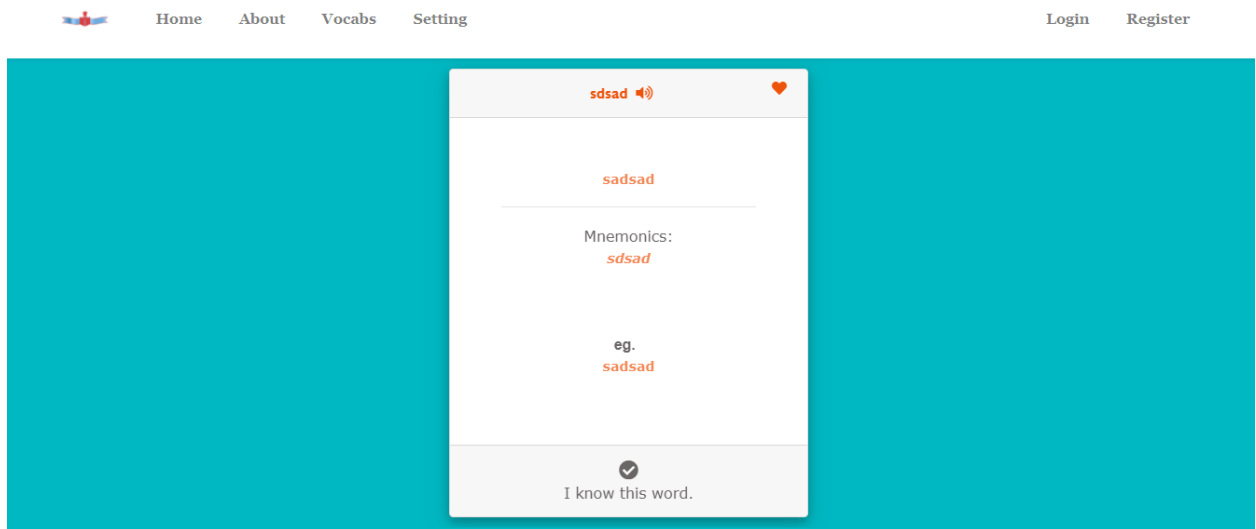


Figure 4.2 Interface of System

#### 2.2.2.2 Performance

This system of is design with php(Laravel backend) with highly optimizes code. Performance is best for normal user.

#### 2.2.2.3 Scalability

The system is develop with API on backend and React Native is a frontend, we can further scale this app by adding machine learning approach to recommend word to the student.

```
{
  "data": [
    {
      "id": 11,
      "title": "asa5",
      "brief": "<p>asdsad</p>",
      "word_level": "Intermediate",
      "mnemonics": "<p>sadsad</p>",
      "example": "<p>asdsad</p>"
    },
    {
      "id": 12,
      "title": "sadsad",
      "brief": "<p>sadsad</p>",
      "word_level": "Intermediate",
      "mnemonics": "<p>sadsad</p>",
      "example": "<p>sadasd</p>"
    },
    {
      "id": 13,
      "title": "sdsad",
      "brief": "<p>sadsad</p>",
      "word_level": "Basic",
      "mnemonics": "<p>sdsad</p>",
      "example": "<p>sadsad</p>"
    },
    {
      "id": 14,
      "title": "asdsdsadsad",
      "brief": "<p>sadsad</p>",
      "word_level": "Hard",
      "mnemonics": "<p>sadsadsd</p>",
      "example": "<p>sdsadsad</p>"
    },
    {
      "id": 15,
      "title": "sdsad",
      "brief": "<p>sadsad</p>",
      "word_level": "Intermediate",
      "mnemonics": "<p>sdsadsad</p>",
      "example": "<p>sdsadsad</p>"
    }
  ],
  "links": {
    "first": "http://localhost/gre/public/api/vocabs-list?page=1",
    "last": "http://localhost/gre/public/api/vocabs-list?page=2",
    "prev": null,
    "next": "http://localhost/gre/public/api/vocabs-list?page=2"
  },
  "meta": {
    "current_page": 1,
    "from": 1,
    "last_page": 2,
    "path": "http://localhost/gre/public/api/vocabs-list",
    "per_page": 5,
    "to": 5,
    "total": 9
  }
}
```

Figure 4.3 API Data by System

#### 2.2.2.4 Fault Tolerance

The system must be able to cope with bad API request and errors in compiling.

#### 2.2.2.5 Interoperability

In context to the project, the system should be accessible from other host and should be able to interact with other applications using web technologies.

#### **2.2.2.6 Usability**

The applications to be developed are built in a user-friendly interface such that even a common person can understand it and make the most use of it .

#### **2.2.2.7 Maintainability**

The system needs to be maintained. The analysis procedure in this project's system needs to be carried out to increase the precision of the system.

### **2.3 Feasibility Analysis**

Feasibility studies aim to objectively and rationally uncover the strengths and weaknesses of this project or proposed venture, opportunities and threats as presented by the environment, the resources required to carry for optimum analysis.

#### **2.3.1 Economic Analysis**

This project is totally non-profitable. Students are easily download or browse through internet to use this GRE vocabulary app.

#### **2.3.2 Operational Analysis**

It is concerned with the operating capabilities of the system. System automatically generates user progress weekly and daily basis.

#### **2.3.3 Technical Analysis**

All the tools and software product required to construct this project is easily available in the web. It do not require special environment to execute. It needs just internet and browser . All these aspects are easily affordable. The application requires simple user interfaces.

### **2.4 Software and Hardware Requirement**

#### **2.4.1 Software Requirement**

Following are the software requirement necessary for the project.

- PHP Programming language
- Visual Studio Code (Editor)
- Windows/UNIX OS (Operating System)

#### **2.4.2 Hardware Requirement**

Following are the hardware requirement necessary for this project.

- Computer Device (Desktop/Laptop)

### 3.5 Data Model of the System

#### 3.5.1 ER-Diagram

ER-Diagram of my project is given bellow:

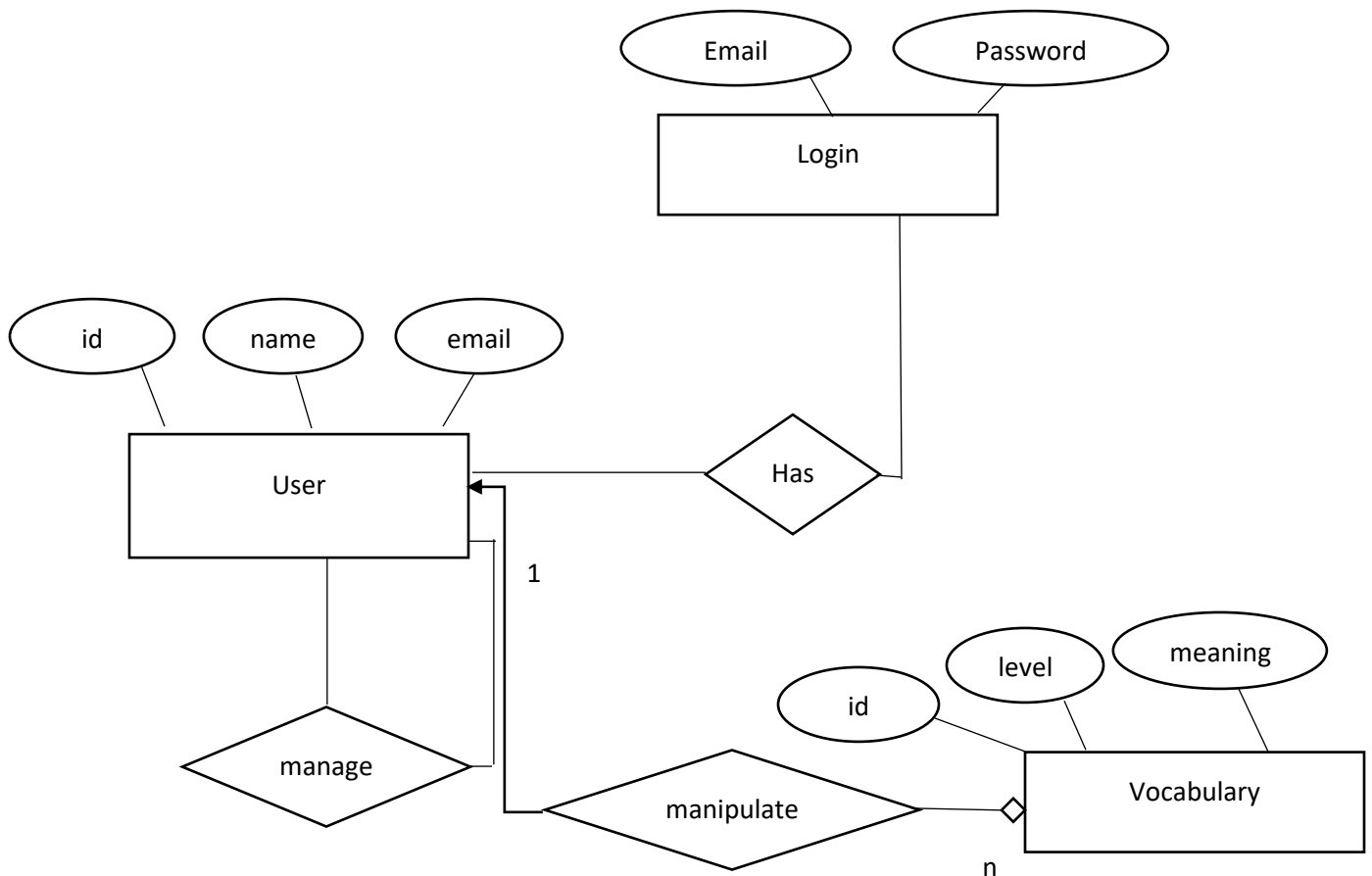


Figure 4.4 ER Diagram of System

### 3.6 Process Modeling

#### 3.6.1 Class Diagram

Class Diagram is given below:

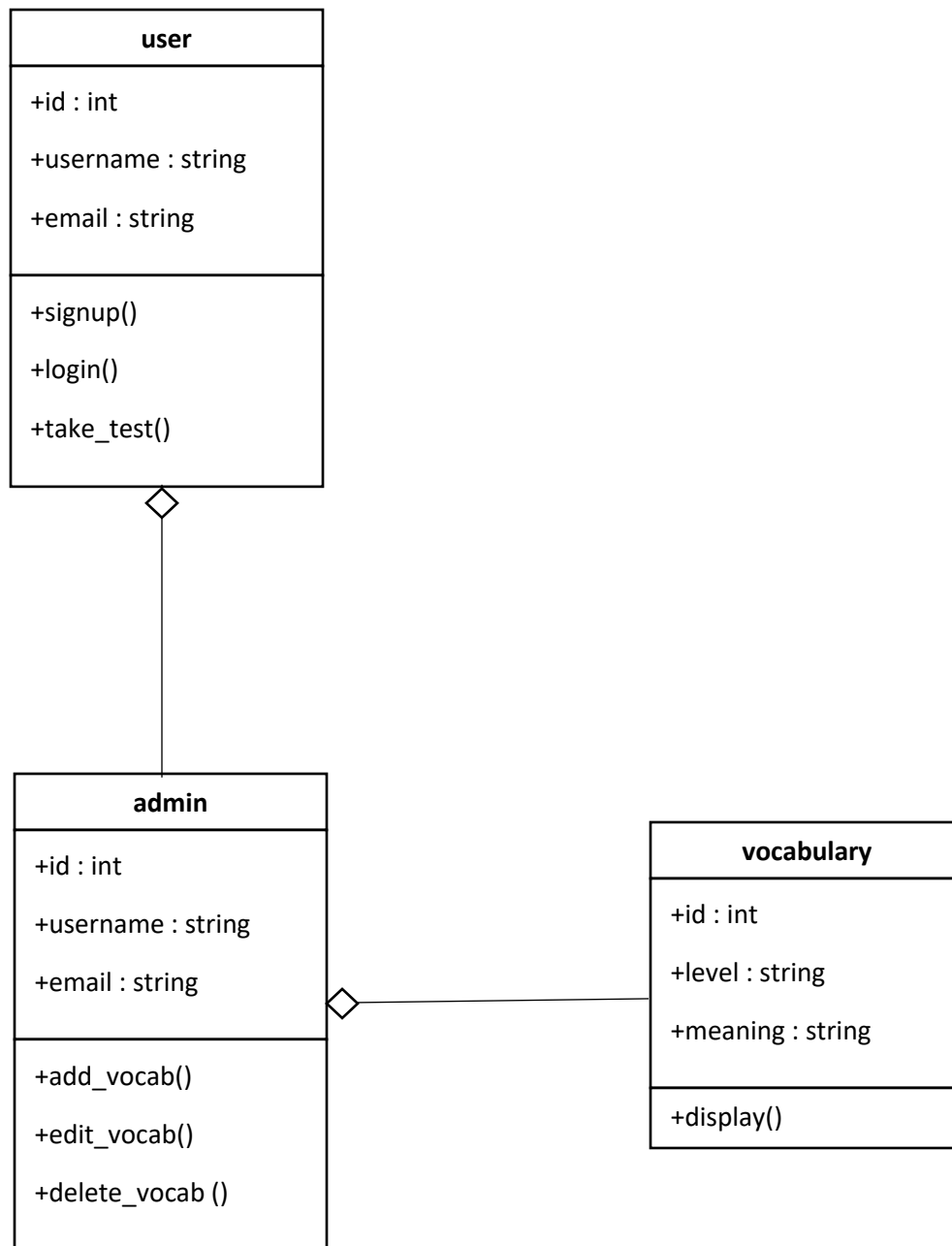


Figure 4.5 Class Diagram of System

## **CHAPTER FIVE**

### **IMPLEMENTATION & TESTING**

#### **5.1 Implementation**

Gre vocabulary project is implement using different front-end and backend technology. Different approach is describe bellow:

##### **5.1.1 Front End Tools**

###### **5.1.1.1 HTML**

This is basic tool used to develop any web project. HTML in my project is used for developing overall markup on web.HTML5 is used in this project implementation.

###### **5.1.1.2 CSS**

CSS is used to make up html document to make more user friendly and attractive. I used CSS3 fro this project.

###### **5.1.1.3 Frameworks**

Bootstrap(framework of css), JQuery(framework of javascript) is used for more attractive UI.

##### **5.1.2 Back End Tools**

###### **5.1.2.1 PHP**

PHP is used to implement backend logic on this project. Laravel (BackEnd framework of PHP) is used to make program more structured. Laravel use MVC pattern to organize program with model view controller.

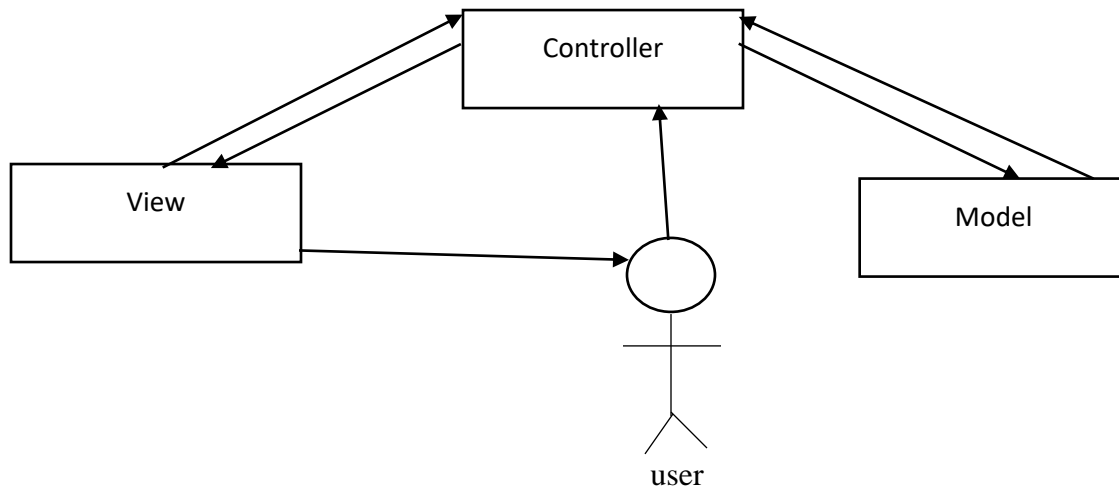


Figure 5.1 Implementation model of System

#### **5.1.2.2 MYSQL**

To implement database to store required information I used mysql as database and apache as server.

### **5.2 Development Methodology**

#### **5.2.1 Agile deployment methodology**

This project is develop using agile deployment technique by continuously plan, code, monitor and deployment.

### **5.3 Testing**

Testing in our project is done with php inbuild test case phpunit. Phpunit is responsible for testing individual unit (method) testing.

#### **5.3.1 Test Case for Login**

Table 2 5.1 Test Cases of System

S.NO	Input	Expected Output
1	Email:iammaheshacharya@gmail.com Password:Mahesh123	Login Successful
2	Email:iammmahesh@gmail.com Password:mahesh321	Login Failed

Fig below show test cases:

Login Success:

Login Failed:

Figure 5.2 Test Cases of System

## **CHAPTER SIX**

### **CONCLUSION**

#### **6.1 Conclusion**

#### **6.2 Summary**

The internship program has been an excellent and rewarding experience for the author. It has provided author with the opportunity to develop understanding of real world working environment as well as establish network contact with different personnel from the IT industry. During internship author learnt all about web development flow.

#### **6.3 Recommendation**

##### **6.3.1 Paid Internship**

Students consider various factors (such as company reputation, work experiences offered) for an Internship program. Among them is the opportunity for a 'paid internship'. The number of companies that pay their interns are on the rise. Paid internship programs boost performance and elevate commitment levels, eventually getting more out of interns.

##### **6.3.2 Proper Evaluation**

All the workers are always concern about whether the company is loving their work or not. Are they contributing the company to meet its expectation? Such kinds of thoughts develop among them . So, the company should try to give review to the employee and do their honest evaluation.

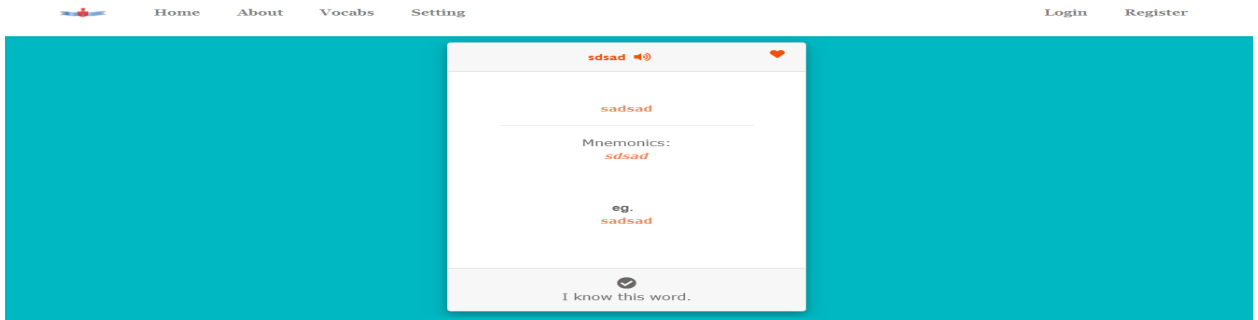


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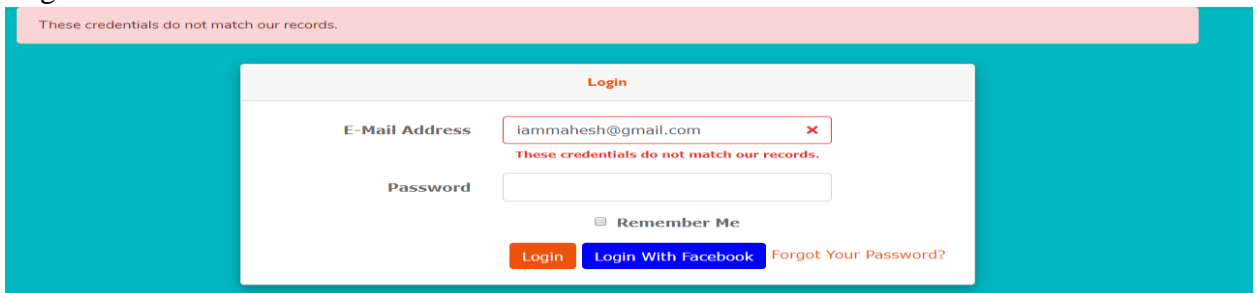
- [1] Jiang S. and Zhang X. 2002. LIRS: An Effective Low Inter-Reference Recency Set Replacement Policy to Improve Buffer Cache Performance. Proc. SIGMETRICS: 31-42.

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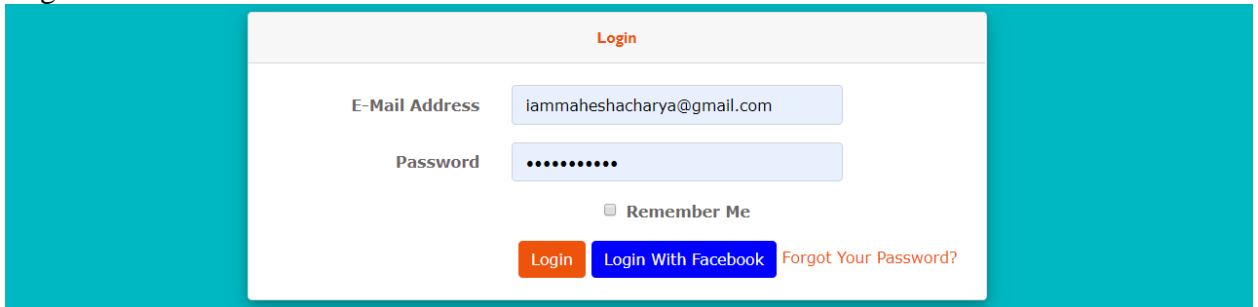
Interface:



Login failed:



Login Success:



API Data from System:

```
{
  "data": [
    {
      "id": 11,
      "title": "asa5",
      "brief": "<p>sadsad</p>",
      "word_level": "Intermediate",
      "mnemonics": "<p>sadsad</p>",
      "example": "<p>sadsad</p>",
      "id": 12,
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      "brief": "<p>sadsad</p>",
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      "example": "<p>sdsadsad</p>"
    }
  ],
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    "first": "http://localhost/gre/public/api/vocabs-list?page=1",
    "last": "http://localhost/gre/public/api/vocabs-list?page=2",
    "prev": null,
    "next": "http://localhost/gre/public/api/vocabs-list?page=2"
  },
  "meta": {
    "current_page": 1,
    "from": 1,
    "last_page": 2,
    "path": "http://localhost/gre/public/api/vocabs-list",
    "per_page": 5,
    "to": 5,
    "total": 9
  }
}
```