

**Collaborative Learning Network**

**BY**

**SHIHAB UDDIN MOHAMMAD OMAR**

**ID:143-15-4261**

**AND**

**MD. MUSFIQUR RAHMAN**

**ID:151-15-5064**

**AND**

**RAIKAA BINTE MOSTAFIZ**

**ID:151-15-5265**

**AND**

**SALMA YEASMIN**

**ID:151-15-5391**

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

Supervised By

**Riazur Rahman**

Lecturer

Department of CSE

Daffodil International University

Co-Supervised By

**Mr. Md. Sadekur Rahman**

Assistant Professor

Department of CSE

Daffodil International University



**DAFFODIL INTERNATIONAL UNIVERSITY**

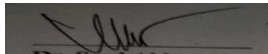
**DHAKA, BANGLADESH**

**DECEMBER 2018**

## **APPROVAL**

This Project titled “**Collaborative Learning Network**”, submitted by Shihab Uddin Mohammad Omar, ID no. 143-15-4261, MD. Musfiqur Rahman, ID no. 151-16-5064, Raikaa Binte Mostafiz, ID no. 151-15-5265 and Salma Yeasmin, ID no. 151-15-5391 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 B.Sc. in Computer Science and Engineering (BSc) and approved as to its style and contents. The presentation has been held on December 10<sup>th</sup>, 2018.

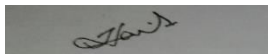
### **BOARD OF EXAMINERS**



---

**Dr. Syed Akhter Hossain**  
**Professor and Head**  
Department of CSE  
Faculty of Science & Information Technology  
Daffodil International University

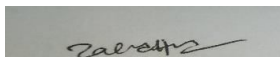
**Chairman**



---

**Dr. Sheak Rashed Haider Noori**  
**Associate Professor and Associate Head**  
Department of CSE  
Faculty of Science & Information Technology  
Daffodil International University

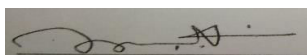
**Internal Examiner**



---

**Md. Zahid Hasan**  
**Assistant Professor**  
Department of CSE  
Faculty of Science & Information Technology  
Daffodil International University

**Internal Examiner**



---

**Dr. Mohammad Shorif Uddin**  
**Professor**  
Department of Computer Science and Engineering  
Jahangirnagar University

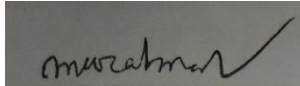
**External Examiner**

## DECLARATION

We hereby declare that, this project has been done by us under the supervision of **Riazur Rahman, Lecturer, Department of CSE** 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.

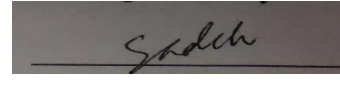
### Supervised by:



---

**Riazur Rahman**  
Senior Lecturer  
Department of CSE  
Daffodil International University

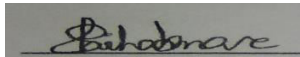
### Co- Supervised by:



---

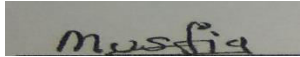
**Mr. Md. Sadekur Rahman**  
Assistant Professor  
Department of CSE  
Daffodil International University

### Submitted by:



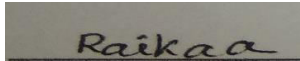
---

**Shihab Uddin Mohammad Omar**  
ID: 143-15-4261  
Department of CSE  
Daffodil International University



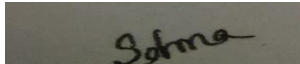
---

**MD. Musfiqur Rahman**  
ID: 151 -15-5064  
Department of CSE  
Daffodil International University



---

**Raikaa Binte Mostafiz**  
ID: 151-15-5265  
Department of CSE  
Daffodil International University



---

**Salma Yeasmin**  
ID: 151-15-5391  
Department of CSE  
Daffodil International University

## ACKNOWLEDGEMENT

First, we express our heartiest thanks and gratefulness to almighty God for His divine blessing makes us possible to complete the final year project/internship successfully. We really grateful and wish our profound our indebtedness to **Riazur Rahman, Senior Lecturer**, Department of CSE Daffodil International University, Dhaka. Deep Knowledge & keen interest of our supervisor in the field of “Web based Application” to carry out this project. His endless patience, scholarly guidance, continual encouragement, constant and energetic supervision, constructive criticism, valuable advice, reading many inferior drafts and correcting them at all stage have made it possible to complete this project.

We would like to express our heartiest gratitude to Prof. Dr. Syed Akhter Hossain, Head, Department of CSE, for his kind help to finish our project and also to other faculty member and the staff of CSE department of Daffodil International University. We would like to thank our entire course mate in Daffodil International University, who took part in this discuss while completing the course work.

Finally, we must acknowledge with due respect the constant support and patients of our parents.

## **ABSTRACT**

The aim to design and develop this project “Collaborative Learning Network” is to produce such system, which can efficiently work as a communication medium for learners and educators both which includes searching, uploading, downloading and sharing opinions all together combinedly among world. Collaborative Learning Network give the searched result as the user demand and also provide uploading and downloading desired course materials and course topics and sharing option to communicate between the users and also share their opinions in one Sigle platform. This project attempts to solve the time-consuming problem along with some creative thinking, which can be used as a collaborative medium between the learners and educators. Moreover, from the output of the project it saves our valuable time, get related searched result more efficiently and also makes our student life easier.

# TABLE OF CONTENTS

<b>CONTENTS</b>	<b>PAGE</b>
Board of examiners	i
Declaration	ii
Acknowledgements	iii
Abstract	iv
Table of contents	v-viii
List of Figures	Viii
List of Tables	Viii
<b>CHAPTER</b>	
<b>CHAPTER 1: INTRODUCTION</b>	<b>01-02</b>
1.1 Introduction	01
1.2 Motivation	01-02
1.3 Objectives	02
1.4 Expected Outcome	02
<b>CHAPTER 2: BACKGROUND</b>	<b>03-04</b>
2.1 Introduction	03
2.2 Related Work	03
2.3 Scope of problems	03
2.4 Challenges	04
<b>CHAPTER 3: DETAILED DESCRIPTION OF THE PROJECT</b>	<b>05-08</b>

3.1 Block Diagram	05
3.2 Requirement Collection and Analysis	05
3.2.1 Non-Functional Requirement	06
3.2.2 Feasibility Study	06
3.3 Use Case Modeling and Description	06-07
3.4 Logical Data Model	07-08
<b>CHAPTER 4: DESIGN SPECIFICATION</b>	<b>09-16</b>
4.1 Front-end Design	09-12
4.2 Back-end Design	13
4.3 Interaction Design and UX	14
4.4 Implementation Requirements	14
4.4.1 OOP PHP Overview	14
4.4.2 PHP-Crawler	15
4.4.3 Scraping	15
4.4.4 Laravel Framework	15
4.4.5 Bootstrap	16
4.4.6 XAMPP	16
<b>CHAPTER 5: IMPLEMENTATION AND TESTING</b>	<b>17-20</b>
5.1.1 Database Design	17
5.1.2 Database Management System	17
5.1.3 MySQL	17-18

5.2 Implementation of Front-end Design	18
5.3 Implementation and Interaction	18
5.4 Testing Implementation	19-20
5.5 Test Results and Reports	20
<b>CHAPTER 6: CONCLUSION AND FUTURE SCOPE</b>	<b>21-22</b>
6.1 Discussion and Conclusion	21
6.2 Limitations	21
6.3 Scope for Future Developments	22
<b>REFERENCES</b>	<b>23</b>



## **LIST OF FIGURES**

Figure-1: Block Diagram of the System	05
Figure-2: Use Case Diagram of the System	07
Figure-3: ER Diagram of the system	08
Figure-4: Front-end Designs of the System	09-12
Figure-4.1(a) Application Interface: Admin (Homepage)	09
Figure-4.1(b) Registration Page	10
Figure-4.1(c) User Account Page	10
Figure-4.1(d) Uploading File Page	11
Figure-4.1(e) Download, comment and like Page	11
Figure-4.1(f) Application Interface: User (Homepage)	12
Figure-4.1(g) Admin Dashboard (admin panel)	12
Figure-5: Back-end Design of the System	13
Figure-6: Database of the System	18

## **LIST OF TABLES**

Table 1: Test Case Table for Collaborative Learning Network	19-20
---	-------

# CHAPTER 1

## INTRODUCTION

**“Collaborative Learning Network** “is an Online educational Website that brings all search and get all important course material along with research papers in a single application and saving time.

### 1.1 Introduction

Nowadays internet is available in maximum place in our country. Students are searching their daily things on the internet. Also, they search their course-related topics and various kind of topics on the internet. There are many search engine and websites and thousands of searched results. So sometimes it really disturbing for those to find the related search result. So, we want to make an application which can solve this problem. In our application one can upload their course material, course-related topic and research paper as their need. And the user can also search all the topics at a time. Here we will provide a like/Dislike option for getting the idea how good the topic is. And the user can also comment on that topics so that anyone can get a proper idea before he/she download it. That is what our project is.

**“Collaborative Learning Network** “is an Online educational Website that is work as a collaborative medium which includes searching, sharing all kind of course materials and course-related topics altogether.

In this website, we used web crawler for searching all kind of information we need from the internet. A user must be registered to our database. When one user starts visiting our application, he/she can see a wonderful interface. When a user login into our website, he can access the materials by searching, uploading various type of materials on various topics and also download files as needed.

We design such a website that looks like the “Google Classroom” but in our project, we particularly set some extra feature that comes with a new look. In our application user can search any kind of materials as their demand and also comment for review and gives like/Dislike option to choose which files are related to his need.

## 1.2 Motivation

**“Collaborative Learning Network** “is an online educational website where Everyone gets course materials according to their choices and can upload course related important materials and documents for the learners. Usually, a student always faces difficulties to find a course related solution for the desired topic. For this, he or she has to search the materials in many ways and it’s also time-consuming for who do research in their work. But we proposed a solution for the learners and the educators for solving this problem. We inspired to make a website where everyone can get their work-related materials in one place globally.

## 1.3 Objectives

Objective of our Website are mentioned below:

- To provide a platform for users to search globally.
- To provide an opportunity to the users get any information in detail.
- To provide course materials, course related topics and research paper at a time.
- To provide best and relevant topics there is a Like/Dislike option for users
- To facilities to the users the taste of sharing opinions there is comment section.

## 1.4 Expected Outcome

**“Collaborative Learning Network”** is an online educational website where everyone gets an easy access to use our website. Users just have to log in for this. The users will gain full control to create their own category for their files and share it with everyone. we will feature Like/Dislike option so that user can easily detect how relevant the topic is before download. Another key feature of our website is user can search everything at a time.

Trough our website user can post their comment to justify the related topics. We also hope user to express their opinions freely using our website.

## **CHAPTER 2**

### **BACKGROUND**

#### **2.1 Introduction**

Lots of students search their expected things daily by online (websites, forum etc.) but they don't get their expected result easily. So, day by day they face many difficulties during they didn't get their desired information individually in every source for full fill their requirement which is also waste their valuable time.

Considering all these situations, we tried to develop a project "Collaborative Learning Network" which will not only give the desired searched result but also gives them access to upload, download and share their files at a time. It can save lots of time and energy.

#### **2.2 Related Works**

"Collaborative Learning Network" is an online educational website which combinations of two major parts. First part is to get all the valid, related course materials, course topics and research papers to the users. And the second part is users can easily search any kind of materials through our website and also post their valuable comment to get more relevant course materials and topics.

So, we didn't find any kind of related work which will meet the requirements of our project.

#### **2.3 Scope of the Problem**

Students have to search for many things, for this, they have to visit many sites or doing the google search. But It is very difficult to get all the related files at a time and it's also time-consuming for doing all those things.

So, from this point of view, we wanted to build up an online educational website that can search all things as the user demand besides they could upload, download share their files to everyone and also post their opinion in one single platform. We hope this application would help people to save valuable time and costs and make life easy.

## 2.4 Challenges

When we perform any activity, we have to face some obstacles. No work can completely be smooth. Similarly, to develop our project we have to face some challenges here. Since our project is related to search everything, in that case the 1<sup>st</sup> challenge is the (1) crawling many sites or links automatically. When we are crawling by link to link, we get some (2) broken links that was our 2<sup>nd</sup> challenge. And the 3<sup>rd</sup> challenge to us to (3) retrieve all the data from every individual link and cut them by different categories, And the very important thing is deadline. And these was our most difficult and horrible challenge for us. Cause (4) parsing data from any website or portal is much more complex because almost every portal's structure is much more different from one another. And they didn't maintain any basic or standard way of design and develop their portal.

On the other hand, people are addicted too much to social media and use to with many sites, portals. So, it is very difficult to motivate them from this kind of social media and sites to our Collaborative Learning Network. We have to make our system more user friendly so that people are motivated to use our Application. All those things might be challenging for us.

## CHAPTER 3

### DETAILED DESCRIPTION OF THE PROJECT

#### 3.1 Block Diagram

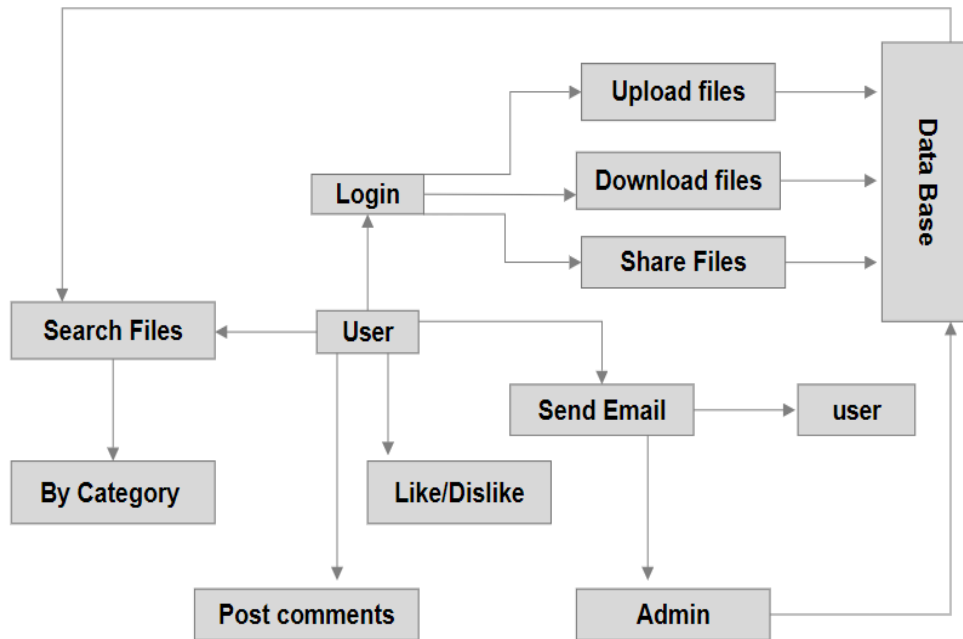


Figure-1: Block Diagram of the System

#### 3.2 Requirement Collection and Analysis

Requirement collection and analysis is one of the primary conditions of application development. For deployment, there are two types of requirements, one is the functional requirement and the other is nonfunctional requirement. Functional requirements are those activities that's the application software can perform. On the other hand, Nonfunctional requirements define the personality of an application, as like the application is how much efficient, performance issue of the application and many more.

### **3.2.1 Non-Functional Requirement**

Non-functional requirements are helping to being more efficient; optimize performance, memory consuming, smoother operation, and load on quickly as possible to our application. Application UI should be user friendly and gorgeous for excellent user experience.

### **3.2.2 Feasibility Study**

The feasibility study of a system is to analyze the proposed system and to decide whether the system under consideration will be workable or not after implementation. It determines the usability of the project after development. It also describes how our application can meet to the user's requirements, what resources are available for our system and many other things. Feasibility study is more important to know about the current status of competitive market. Different types of feasibility study we performed on our project "**Collaborative Learning Network**".

### **3.3 Use Case Modeling and Description**

Use case is a description of how a user will use the system to accomplish his business goals. It represents a functional or an action within the system. The two main components of a use case diagram are use cases and actors. Actor in a use case diagram is any entity that performs a role in one given system.

In use case diagram the below figures show that-

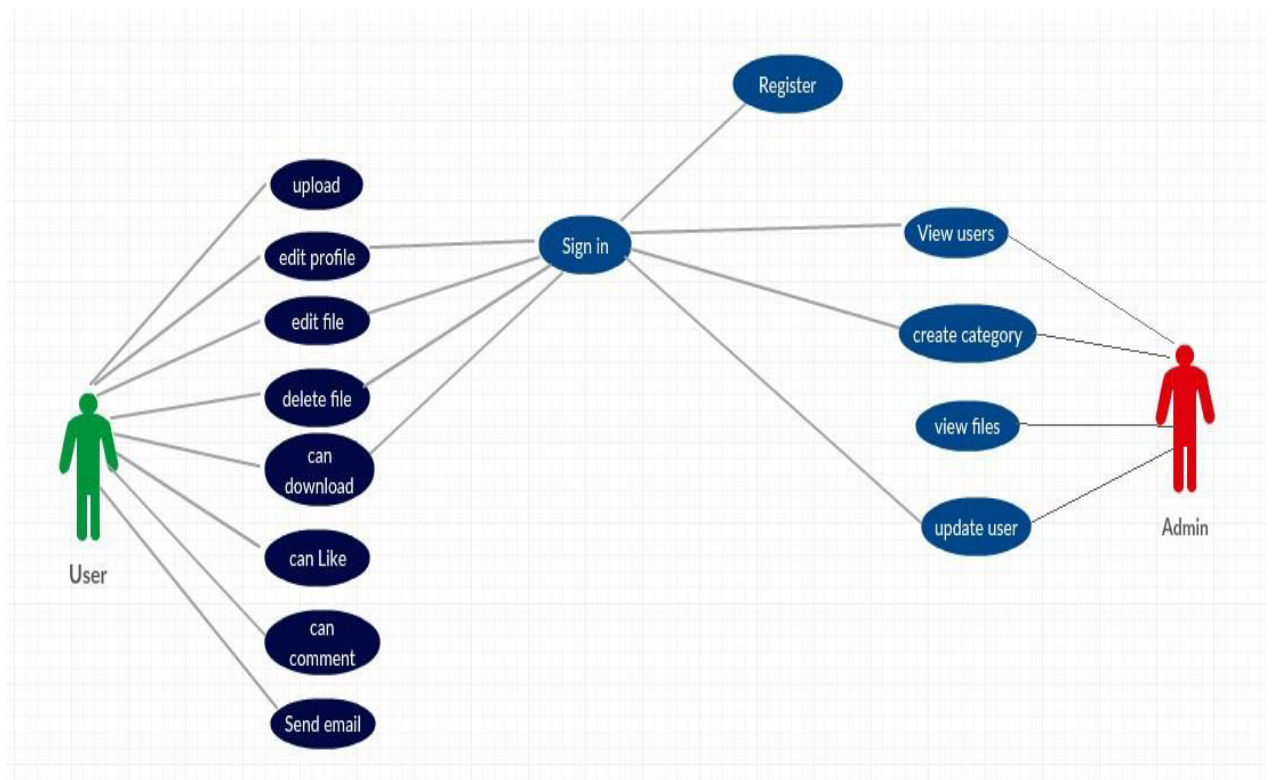


Figure-2: Use Case Diagram of the System

### 3.4 Logical Data Model

Logical data model describes data those are stored in database as deep as possible. It includes all entities and relationship among them. Actually, Logical data model presents the Entity Relationship Diagram called E-R diagram. In E-R diagram all attributes for each entity are specified. The primary key, foreign key and other attributes are specified in the diagram. In figure below, we have shown the ER diagram of our application.



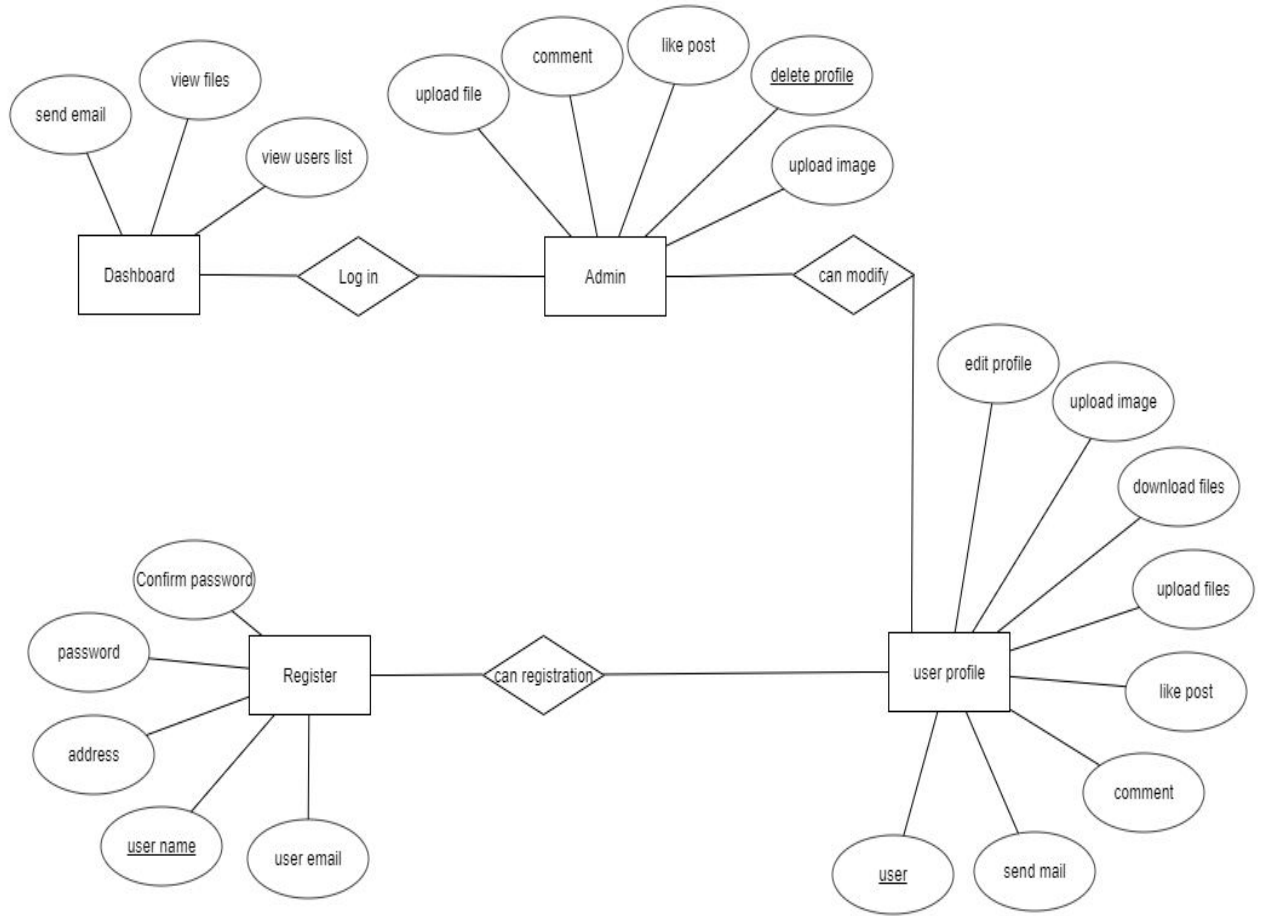


Figure-3: ER Diagram of the system

# CHAPTER 4

## DESIGN SPECIFICATION

Design Specification is a statement of how a design is developed. In the section of Design Specification, we try to show the front-end and back-end design of our Search Engine. We also discussed about many tools and platforms, which we use to develop our application

### 4.1 Front-end Design

From the point of view of designing, Front-end is a most important section for the application development. It is worked on presentation layer and user can directly interact with this. It is very important to develop a simple and easily understanding front-end or GUI for the user of the application. So, we tried to keep our design as simple as possible and easily accessible for the user, but the development task wasn't so easy. We attach our application front-end design in bellow.

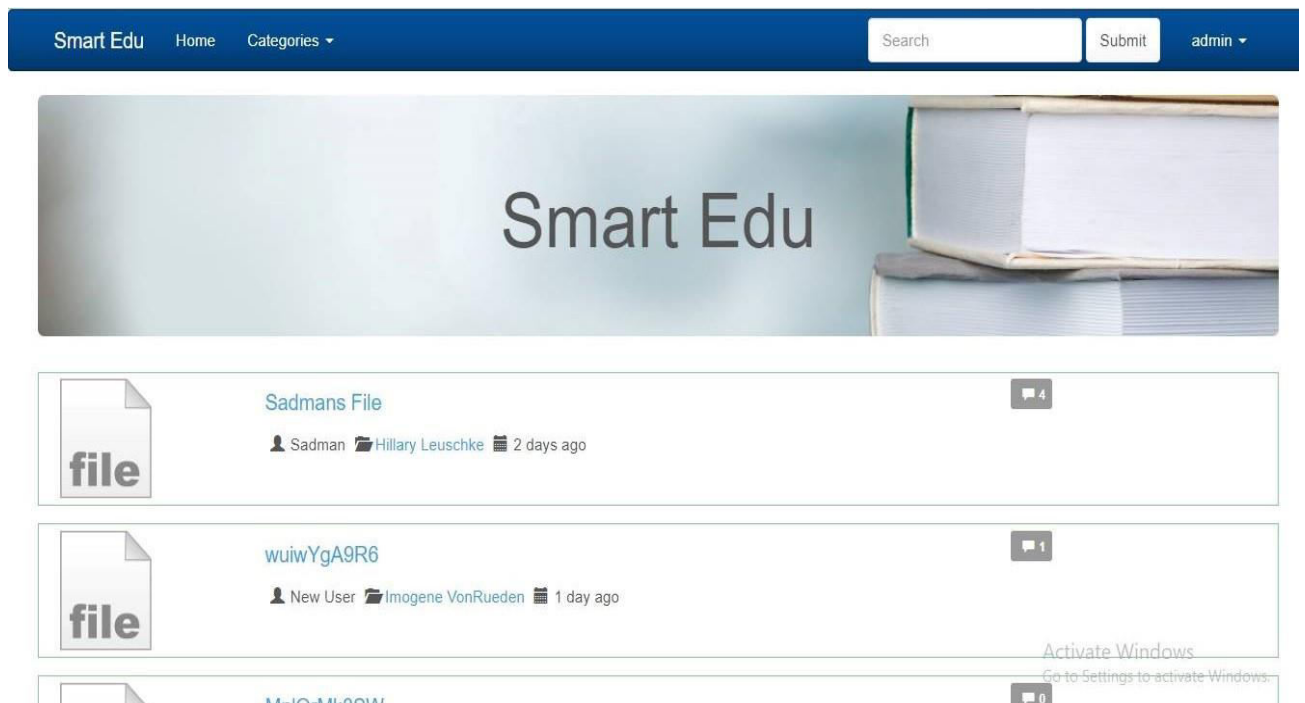


Figure-4.1(a) Application Interface: Admin (Homepage)

Smart Edu Home   [Login](#) [Register](#)

Register


Name


E-Mail Address

Password

Confirm Password

Figure-4.1(b) Registration Page

Smart Edu Home Categories     [New User](#)



New User

- [Personal](#)
- [Change Password](#)
- [Send Email](#)

**Personal Info**

Name

About

Address

Profile Image  No file chosen

Figure-4.1(c) User Account Page

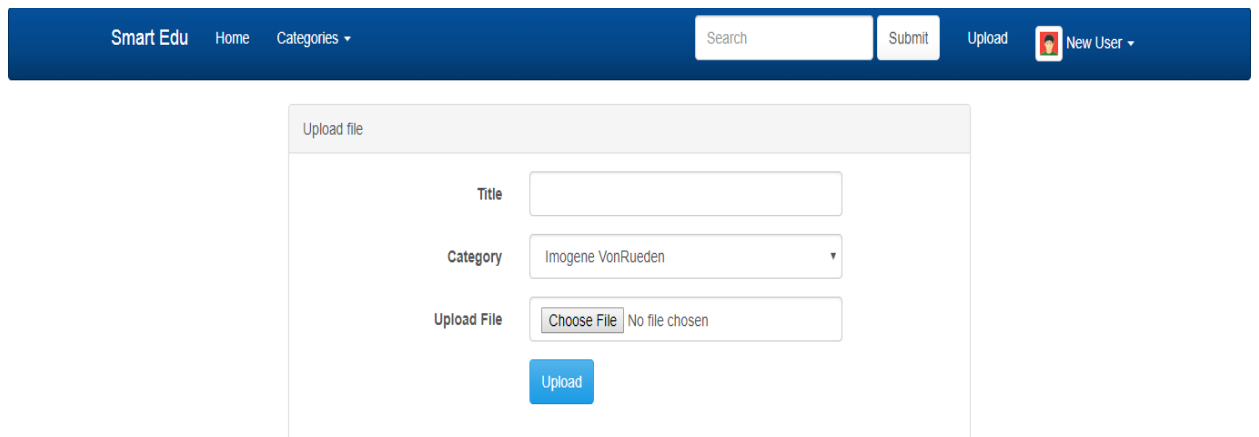


Figure-4.1(d) Uploading File Page

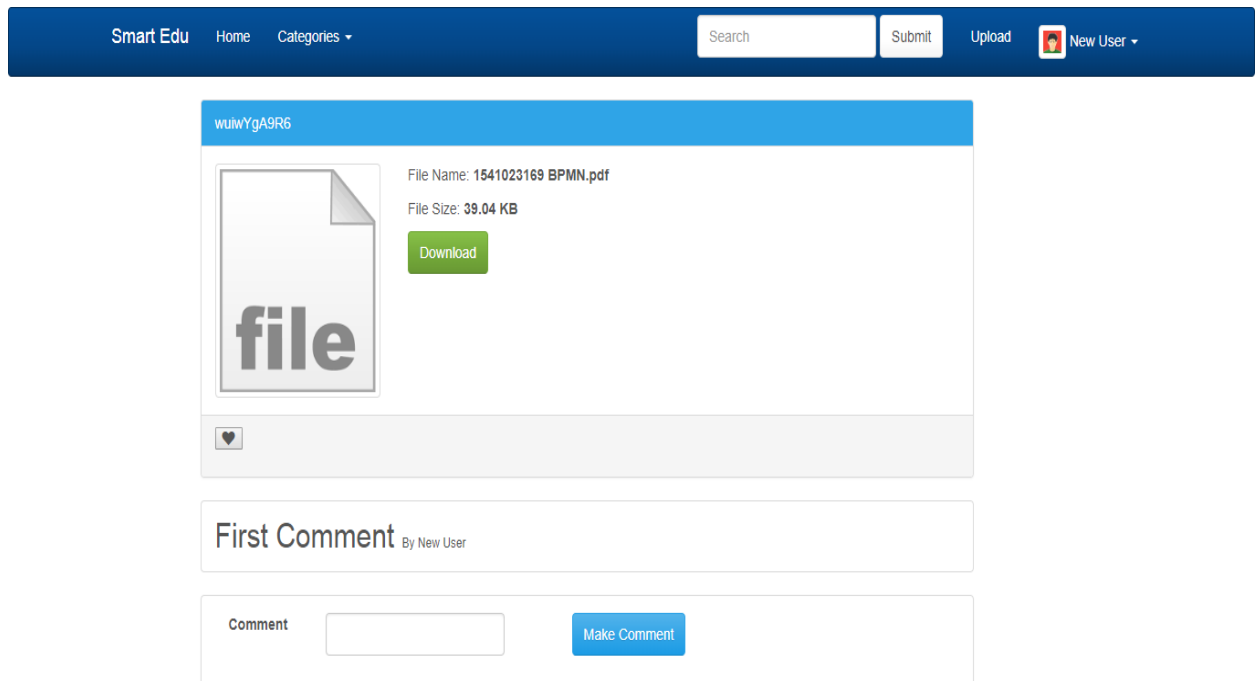


Figure-4.1(e) Download, comment and like Page

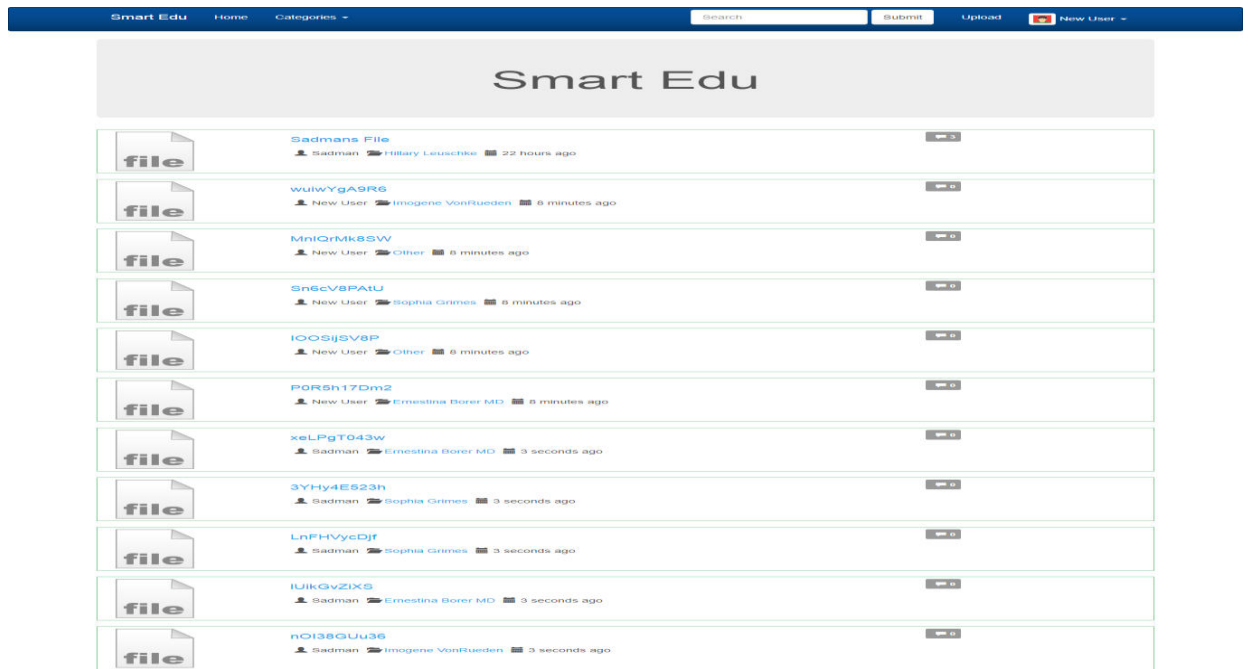


Figure-4.1(f) Application Interface: User (Homepage)

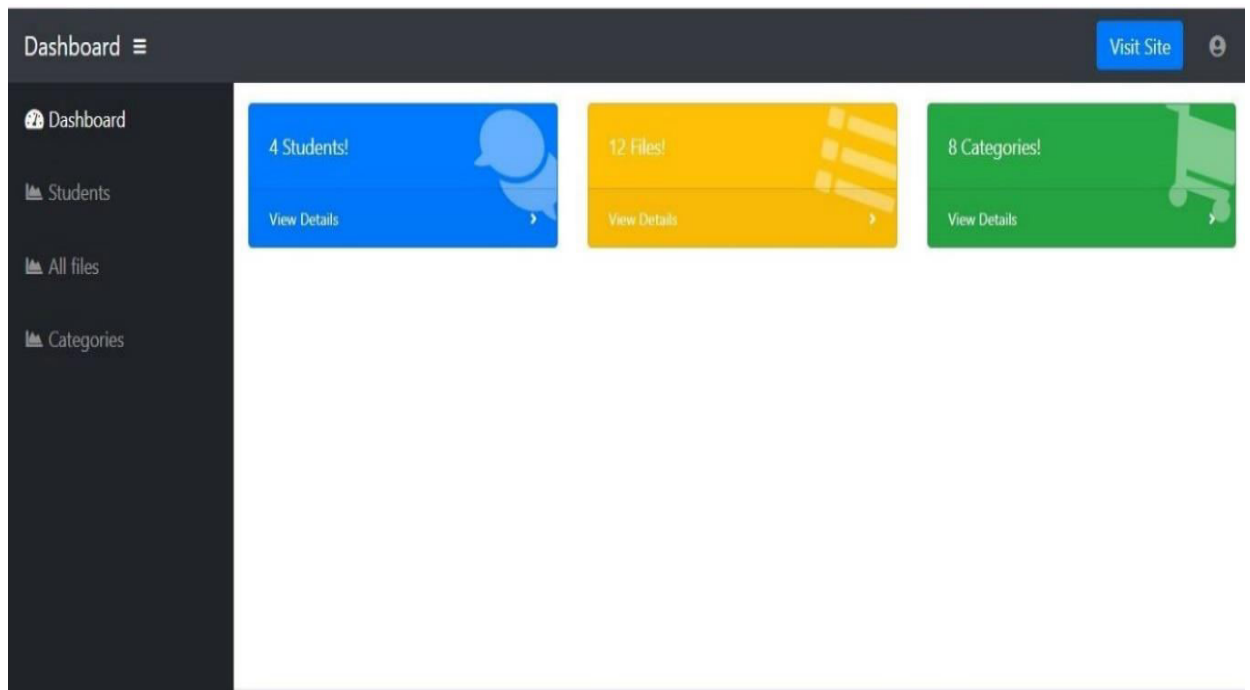


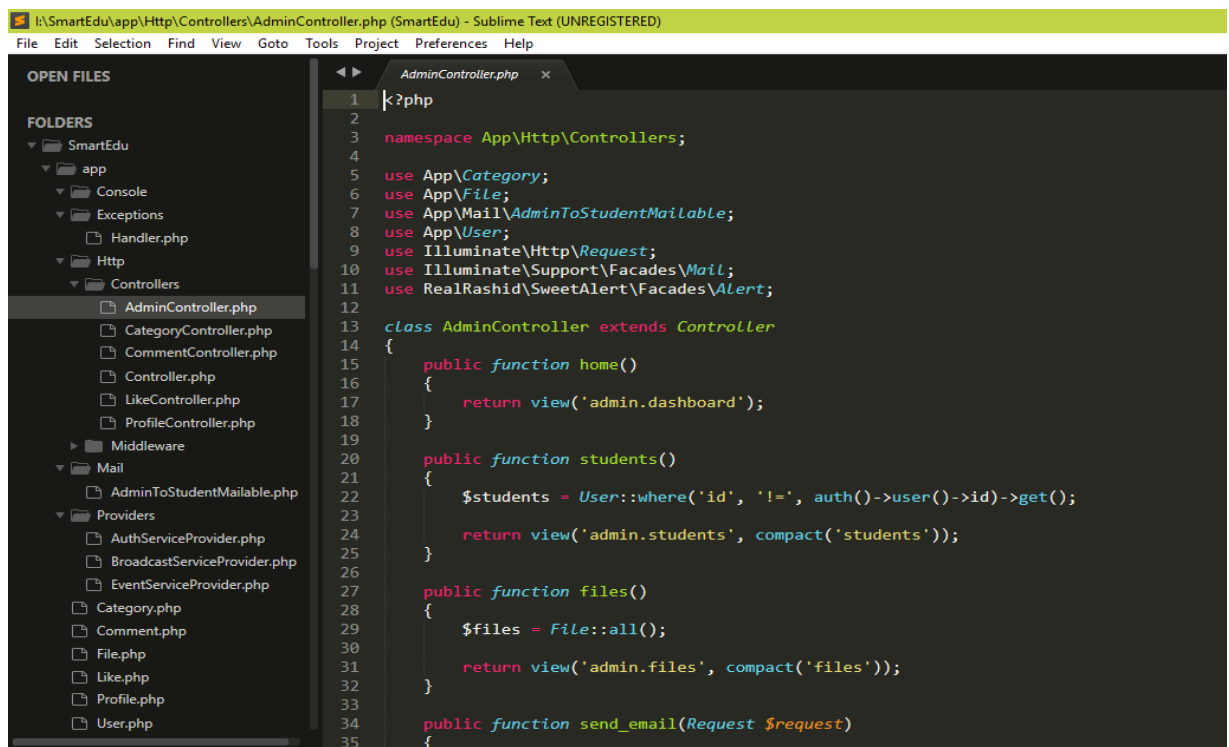
Figure-4.1(g) Admin Dashboard (admin panel)

Figure-4: Front-end Designs of the System

## 4.2 Back-end Design

Back-end means a section that is working behind the projects, but the user is unaware of or can't see this. Back-end technology usually consists of language like PHP, Ruby and Python etc. Actually front-end design is only way to interact with the user, but user can't watch and never visualized how to the system is working. Back-end does everything that happens on the server or behind the application. For android application, it is more difficult to handle back-end portion than a web application, because android device components are very limited. That's why, we are don't develop anything that could be cause of pressurized on the device in the back-end portion.

In our application we use PHP OOP, PHP/Crawler, LARAVEL Framework, Bootstrap, MySQL database and XAMPP as local server to develop and maintain the back-end section. We attach our application front-end design in bellow:



```
1 <?php
2
3 namespace App\Http\Controllers;
4
5 use App\Category;
6 use App\File;
7 use App\Mail\AdminToStudentMailable;
8 use App\User;
9 use Illuminate\Http\Request;
10 use Illuminate\Support\Facades\Mail;
11 use RealRashid\SweetAlert\Facades\Alert;
12
13 class AdminController extends Controller
14 {
15     public function home()
16     {
17         return view('admin.dashboard');
18     }
19
20     public function students()
21     {
22         $students = User::where('id', '!=', auth()->user()->id)->get();
23         return view('admin.students', compact('students'));
24     }
25
26     public function files()
27     {
28         $files = File::all();
29         return view('admin.files', compact('files'));
30     }
31
32     public function send_email(Request $request)
33     {
34
35 }
```

Figure-5: Back-end Design of the System

### **4.3 Interaction Design and UX**

Interaction design is a discipline that observes the interaction between a system and its user. Actually, interaction design is the processes which understand the user problem domain, process the problem and find out the results, perform actions by the respecting results and solve the problem.

On the other hand, user experience focuses on the overall experience between a user and an application. In our application, there are some features that can interact with the user. One of the features is community creation, which can share information or opinion from one to another. That could be motivating the user to the application.

For UX we are tried to give some fantastic experience by our application. We keep our system simple and easier for better experience and performance for the user. We worked so hard to decrease the data loading time on our application and that effort will be continued.

### **4.4 Implementation Requirements**

To implement our project, we used different type of tools, components and platforms those help us to develop our project successfully. In Implementation Requirement section we discussed about all those tools and platforms that we use to develop our application.

#### **4.4.1 OOP PHP Overview**

Basically, PHP is a general-purpose scripting language and recursively PHP stands for Hypertext Preprocessor. And OOP is object-oriented programming.

There are three main principle of OOP.

- Inheritance
- Encapsulation
- Polymorphism

So, all these principles are work in PHP. And PHP OOP is used for building complex, reusable web application.

## 4.4.2 PHP-Crawler

PHP-Crawler is an open-source crawling script based on PHP and MySQL. PHP Web Crawler is a software that searches for links in the web. It stores the links and some extra data in a database and shows them as HTML output.

Features:

- The crawler can be run as multiple instances
- Crawl results are saved in a MySQL database. It generates the table "URLs" to store the crawls.

For each URL it saves the URL of source, the URL of the destiny and the anchor text.  
- Validates the URLs via a regular expression. It avoids the links to static data into the site. Including the unnecessary media files. Despite this I can't ensure that the crawler avoids all the media files. That be more complex to validate.

## 4.4.3 Scraping

Scraping is process by which php can grab a webpage all content easily. It retrieves all the contents and put into the database. When we need a page's attribute, tag name or else this works a lot.

## 4.4.4 Laravel Framework

A framework is basically using to develop a software application. A Framework may have some predefined classes and functions that can be used to process input, manage devices and interact with system software.

There are so many Frameworks. In PHP, Laravel is one of the latest Framework. We use this framework for building up our web application. Through Laravel Framework, It gives us the ultimate access to interact with our web application with the system software.

Besides, we use Laravel so that we can ensure the security of our web application and Through MVC we can control everything and make necessary updates if it is needed.

## 4.4.5 Bootstrap

For building a website we use HTML and CSS. In HTML, we can only design the basic structure of the website. With the help of CSS, we can reshape and color the website as per user choice. Building the website structure and writing code is more



time consuming. But bootstrap can build a website vary easily and quickly. Bootstrap are mainly used for enhancing our working time and make the website responsive. It is also a front-end framework for designing websites and web application.

#### **4.4.6 XAMPP**

XAMPP is a free and open source cross-platform web server that is a simple, light-weighted Apache server that makes it extremely easy for developers to create a local http server with just few clicks. We use XAMPP to build up a local server for our application.

## CHAPTER 5

### IMPLEMENTATION AND TESTING

#### 5.1.1 Database Design

Database design is the process of producing a detail data model of database. This data model contains all the needed logical and physical design choices and physical storage parameters needed to generate a design in a data definition language, which can then be used to create a database. A fully attributed data model contains detailed attributes for each entity.

A database collects and stores data in such organized way that data requirements are satisfied by the database. The general objective is to make information access easy, quick, inexpensive and flexible for the user. There are also some specific objectives like controller redundancy from failure, privacy, security and performance. A collection of relative records makes up a table. To design and store data to the needed forms database tables are prepared. Two essential setting for a database are:

- Primary key: This field is unique for all the record occurrences.
- Foreign key: This field used to set relationship between tables. Normalization is a technique to avoid redundancy in the tables.

#### 5.1.2 Database Management System

A database management system (DBMS) is system software for creating and managing databases. The DBMS provides users and programmers with a systematic way to create, retrieve, update and manage data. In our application we used MySQL.

#### 5.1.3 MySQL

MySQL is the most popular open source relational SQL database management system. MySQL is one of the best RDBMS being used for developing web-based software applications. We are using MySQL as database in our proposed system. It's cost effective. There is no doubt that Oracle create terrific database, but the cost involved will be prohibitive for many MySQL is free. It can be installed and used but pay nothing in the process. Figure () we show the Entity Relationship Diagram. Now we have shown our project back-end database table in bellow:

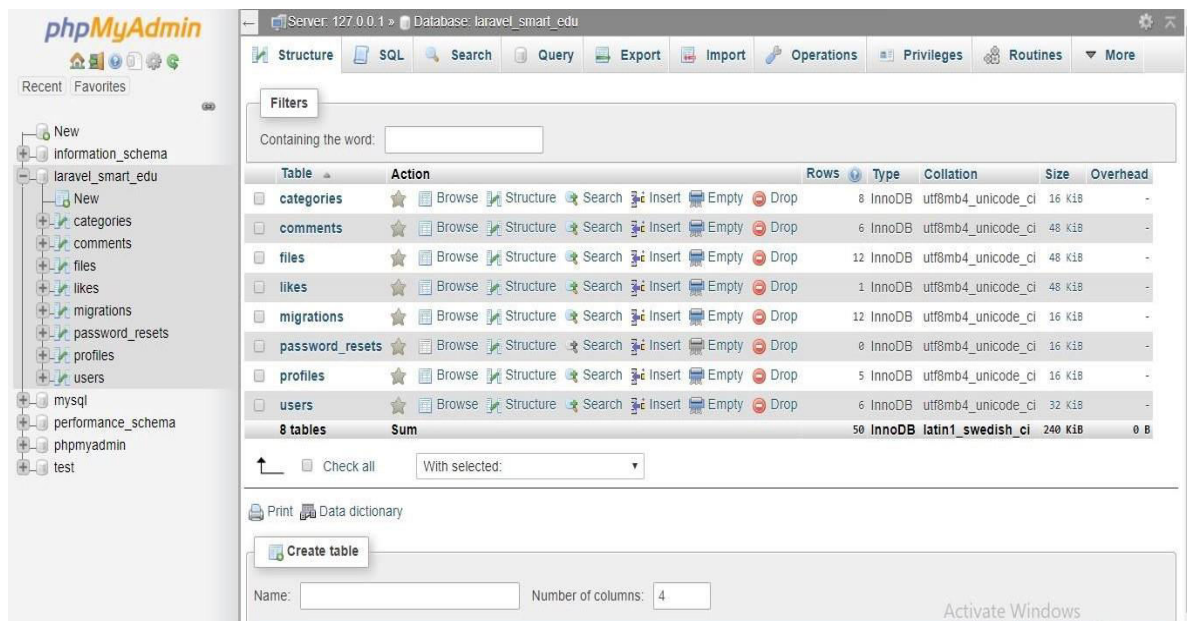


Figure-6: Database of the System

## 5.2 Implementation of Front-end Design

Since web is a huge area so the design should be defined shortly including key component of the system. It's very challenging to develop a gorgeous front-end design. Because, for developing a design for a search engine along with user interaction all the time we have to consider the user-friendly front end, it's very tough to balance the design with relative Search engine. For interactive design we always try to be simple in UI design and we try some material design for make the application beautiful.

## 5.3 Implementation and Interaction

The architecture of a software system defines that system in terms of components and interactions among those components. In real world, interaction can find almost everywhere. Interaction is the key to make a system dynamic and attractive to user. It's very necessary to make a system interactive and we also try to. As mentioned in earlier, we also include some unique feature to interact our system like a community for student and study reminder. Our application is successfully implemented and the interaction of our application with the users is quite impressive.

## 5.4 Testing Implementation

Test Case	Test Input	Expected Output	Actual Output	Result	Tested On
1.Laravel Connection	Tested on cmd	Successfully connected	Connection successful.	Passed	04/11/18
2. Registration	Without Registration.	Restrict to access user profile	Imposed the Restriction.	Passed	04/11/18
3. Username or Mobile No	Blank or incorrect username or mobile no.	To warn that correct username must be entered.	Showed the warning.	Passed	04/11/18
4. Password	Blank or incorrect password.	To warn that correct password must be entered.	Showed the warning.	Passed	04/11/18
5. Profile	Click on the Profile button.	To show the user profile information.	Showed user Profile information successfully.	Passed	04/11/18
6. Profile Update	Input full name, full address, , email, picture.	To update User profile Information.	Updated user profile information successfully.	Passed	04/11/18
7. Picture Update	Input profile picture.	To add profile picture in user profile.	Updated profile picture successfully.	Passed	04/11/18
8. Search file	Search by name	To show file list in search engine	Showed file lists in search engine result page	Passed	04/11/18

9. Logout	Click on the Logout button.	To logout from that account.	Logged out Successfully.	passed	04/11/18
10. Search Job without Registration	Input keywords on the search box.	To show the search result without preference.	Show search result successfully.	passed	04/11/18

Table 1: Test Case Table for Collaborative Learning Network

## 5.5 Test Results and Reports

Test report is needed to reflect testing results in a formal way, which gives an opportunity to estimate testing result quickly. It is a document that records data obtained from an evaluation experiment in an organization manner, describe the environmental or operating conditions, and shows the comparison of test results with objectives.

So, at the end we can carry out the results as the benefits of usability testing to the end of the user or learner.

- Application is easier to use.
- Application is more readily accepted by users.
- Shortens the information for the new users.
- Better UI for interaction.
- Saving time for accessing more websites

## CHAPTER 6

### CONCLUSION AND FUTURE SCOPE

#### 6.1 Discussion and Conclusion

An Online Web Based Educational Application Collaborative Learning Network has been successfully implemented. After connecting with the application through the local host its overall features and functionalities just work fine. This application workflow and beautiful design are user-friendly and efficient enough to work with.

We have encouraged to developing this type of website application because in our country so many students are facing problems when they search their everyday course materials or course topics. They might get many sources on the internet, but it is really difficult to forget the desired course-based material and topics from thousands of search results. And it is also time-consuming. From this point of view, we try to do something for the students so that they can find and get their desired course materials and many other course-related topics and research papers at a time.

We also provide a searching option for the users. So that they can easily get the files they need. And also, there are some extra facilities for the users that are they can upload, download and share the files with the other users. And also, they can like, comment and share their opinion at a time.

This project is meant for describing all the features and procedures that were followed while developing the application. This document specially mentions the details of the project how it was developed, the primary requirement, as well as various features and functionalities of the project and the procedures followed in achieving these objectives.

#### 6.2 Limitations

Our application has some limitation. We will overcome this limitation in future. Some of the main limitations are:

- Only developed for web application.
- We implemented this application through local host, it should have a domain to access the website through the internet.
- Some features need to be included such as notification to the user for their preferred course materials.

### **6.3 Scope for Future Developments**

- Our mission is to make this application for all platforms like windows, iOS and android.
- Our application's data needs more storage in future, so we will add this with larger database system such as Oracle Database or Microsoft SQL Server.
- We will add more additional features to make it more dynamic to satisfy larger organizations and make this application trusted by them and verified.
- We will add all national and international book list and Research papers in our Database.

## REFERENCES

- [1] Learn about What is collaborative system available at:  
<http://archive.wceruw.org/cl1/cl/moreinfo/mi2a.htm> [last accessed August 26,2018]
- [2] Learn about collaborative learning available at:  
<http://www.collaborativelearning.org> [last accessed August 26,2018]
- [3] Learn about collaborative learning available at:  
[https://en.wikipedia.org/wiki/Collaborative\\_learning](https://en.wikipedia.org/wiki/Collaborative_learning) [last accessed August 26,2018]
- [4] Learn about Bootstrap available at: <https://getbootstrap.com> [last accessed August 26,2018]
- [5] Learn about collaborative learning available at:  
<https://learningwithoutlimits.educ.cam.ac.uk/relatedwork/scott/> [last accessed August 26,2018]
- [6] Learn about MySQL available at: <http://www.mysqltutorial.org> [last accessed August 26,2018]
- [7] Learn about project idea available at: <http://nevonprojects.com/project-ideas/android-project-ideas/> [last accessed August 26,2018]
- [8] Learn about project idea available at: <http://www.projecttopics.info/android/smart-note.php> [last accessed August 26,2018]
- [9] Learn about PHP crawler available at: <https://packagist.org/packages/hedii/php-crawler> [last accessed August 26,2018]
- [10] Learn about upload/download functionality available at:  
<https://stackoverflow.com/questions/38156861/creating-an-android-app-that-will-upload-download-files-to-a-server> [last accessed August 26,2018]
- [11] Learn about Laravel Framework available at:  
<https://www.tutorialspoint.com/laravel/> [last accessed August 26,2018]
- [12] Learn about website making available at <http://www.website-builder-app.com/making-a-site.html> [last accessed August 26,2018]
- [13] Learn about HTML available at: <https://www.w3schools.com/html/default.asp> [last accessed August 26,2018]
- [14] Learn about CSS available at: <https://www.w3schools.com/css/default.asp> [last accessed August 26,2018]
- [15] Learn about PHP available at: <https://www.w3schools.com/php/default.asp> [last accessed August 26,2018]