"Student's care" is a web based final year project

By

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

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APPROVAL

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We declare that this project has been conducted by us under the follow up of our supervisor Masud Rabbani, 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.

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ABSTRACT

Student's care is a web based system that is designed to monitoring student academic result beside make a virtual communication system. Here all student have individual ID. By which they can communicate with teachers and also can update their profile by which a teacher can imagine that student's academic result which is good or bad for him, by knowing this he/she can suggest how they can improve their result or how they build their career by arrange a meeting with teacher. Here teachers also have individual ID by which they can communicate with the students. Teachers can also arrange a meeting with the student parents by sending mail to their parent. They can also suggest the parent that their child is good at this or bad at this, they should take care of them. There also a real time notification system and virtual messaging system by this communication among teachers and students become easier and teacher can monitoring students properly.

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Chapter: 01

Introduction

1.1 Introduction

Student's care is an amazing project which is designed for universities students and teachers mainly. But our thought, it is useful to all students and teachers to communication with each other and monitoring the students by teachers. By this system all students and teachers are stay in one place, where teachers can open a group. In this group a certain number of students can join. Then teachers monitoring those students one a certain period or in a time. It is easier to guide the students with monitoring the student academic result and also a proper way to communication with the student's parent. Here teachers can also arrange a meeting with student's parent by sending mail throw our system.

Student's care project provide:

- Individual student profile
- Individual teacher profile
- Real time notification

1.2 Motivation

Actually we want to take all students and teachers in one place where teachers can monitoring the students in a proper way. They can see the students result and other information with in a sort time. Though, there are many communication system in recent era but we think that this is not proper way to communication system and monitoring system among teachers and students. So we could successfully make a system where teachers and student communication system and monitoring system become easier.

1.3 Objective

The main motivation behind this project is bring "Student's care" .we want to make a platform where students and teachers can join in to a group and teachers can monitoring the student by real time notification feature and real time messaging system. Make proper way and a friendship environment among all students and teachers.

1.4 Expected Outcome

This declaration section describe the whole work that will be implemented with more future release of the software.

- Every student has individual Id by which the can login with the site.
- Every teacher has also individual Id and also a code which is unique to join with him or her for the students.
- Students and teachers can communication throw the message with real time notification.

1.5 Report Layout

In this project a full overview of our system and related work and terminologies are given gradually. We recently made a survey on this similar work and try to what is more scope to develop this existing project. Then we would try to solve it with new algorithm and techniques.

In chapter 2 we describe the challenges and facing problem which is make difficult to us. Another chapter 3 we describe the three stage of background. We also describe the requirement specification and try to disclose users demand. In, chapter 4 and 5 we disclose how we solve the problem and what we use to implement the project.

Finally in chapter 6 we remark some concluding and suggestions for future works.

CHAPTER 2

Background

2.1 Introduction

Every year a lot of student admitted into university, day by day this quantity is increase. For this purpose teacher cannot give proper guide to the student. They can't give proper monitor to students to help them best in their academic function. Most of time this reason is our teacher has no proper way to follow the student academic work. Because most of our university's teacher can know about the student academic result by analog system. For this purpose we tried to solve this problem by a digitalized way.

We hope that this service become more popular among the students and teacher of university. It will save our time and will make our education system more helpful by the proper guide of the teachers.

2.2 Related Works

There are a lot of communication elements to communicate with teachers and students. But there are no proper way to communicate and no proper way to monitor the students. There are no platform which made for teacher and student to monitor the university student to help their by proper guide by communicate with virtual and physically by a proper way. So we hope that it will make great help to the university student.

2.3 Scope of the problem

We know that student's care is a project based on web application that is made for university's students. So we should aware that no student can give false result to the site. We know that it is made for all university's students so great traffic can begging to the site. For this purpose we should care about the good server that it may never damage the site and user cannot get any problem to use this site.

2.4 Challenges

Everyone know that every big project has some challenges. So we are not different from others.

- Good and attractive interface design and useful features.
- Create a multiple-authentication system.
- We have two types of user, so we, need proper security to all kinds of user that their data can be secure.
- Make the system very friendly.
- Real time notification system.
- Make the project better than existing project with real life problem.

Chapter 3

Requirement Specification

3.1 Business Process Modeling

Better process produce low cost, motivated employees, higher revenue and happier customer. Visual paradigm provide complete business process model and notation(BPMN) support with sophisticated BPMN tools and supporting features for report generation, glossary management, team collaboration and communication. It seamlessly integrated with other complementary open standers such as UML< ER Diagram, Mind map, Decision table and many more! Furthermore, you can put the diagram into action by using the unique animation and simulation capability.

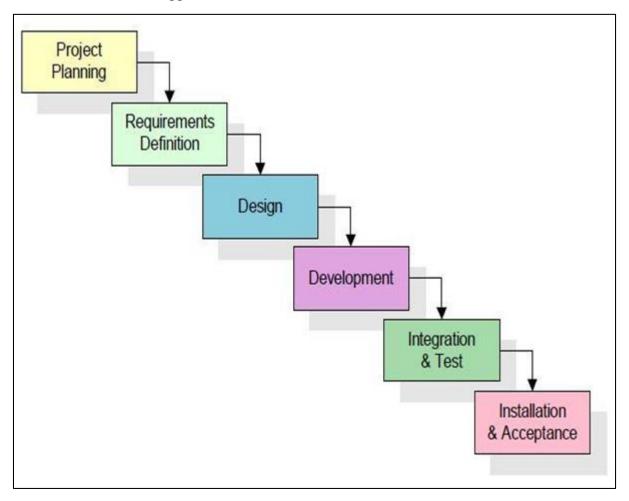
Business process demonstration retailing normal business process and finding approaches to improve them. It is a price of routine with regard to business process administration. Process demonstrating programing gives an association's investigative portrayal of "eg-process" and make it more capable to buy in procedures to be more.

3.1.1 Software Development Life Cycle Model

A software lifecycle model is a standardized format for planning, organizing and running a new development project. Hundreds of different kinds of model are known and used. Many are minor variation on just a small number of basic models. It helps a project to do better project with low cost and limitation.[1]

The waterfall Model

The waterfall model is the classic lifecycle model, and it is widely used. In some respect, waterfall is the "common sense" approach.



Ref [1]

3.1.2 Reasoning to choose waterfall Model

As with this waterfall model all of the stage has been in an agreement and therefore are dependent with each other stage, therefore a phase can't be beginning with before the previous stages is completed or done and recorded. This process is most suitable for that application to become developed, because all of the function what you would like and goals from application are extremely obvious. Next could it be less complicated to complete operate in components and waterfall model is supplying this method in almost any application. And many essential thing with this model when developer find any error form the problem the locate fairly easily out and solve it easily that it is extremely popular.

3.2 Requirement Collection and Analysis

In our project we have 2 types of user. One is student and another is teacher. So at the beginning of the project we collected requirement from teachers and students. Then we collected information from this data. Make a specification for our project and then go for the implement. We collected lot of data from the teachers and student that help us to select the feature of our project. From them some are given below:

- Have different id for teachers and students
- Student can join with teacher in a group.
- Teachers can send message to all student for counseling via our web site.
- Teacher can arrange a meeting with student's parent.

3.3 Use case Modeling and Description

Use case shows the summary that who uses the system or project or application and what they can do by this. Use case diagrams are utilized to gather the needs of the system including internal and exterior influences.

Use case scenario of user

In our system we have two types of user student and teacher. In figure 3.3 shows the working process for student. Every student have to login before inter the site. After successful login he/she can access to all the feature of our system.

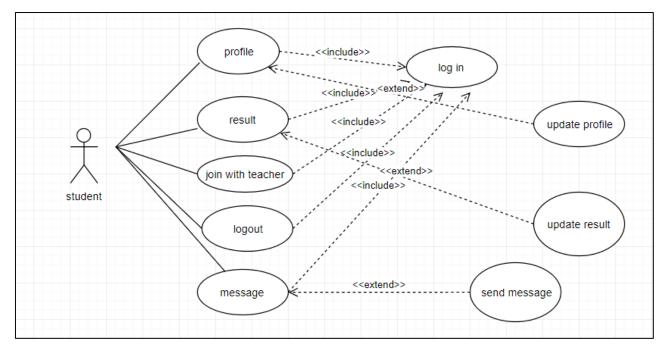


Figure 3.2: Screenshot of Use case for the student

In figure 3.4 shows the working process for the teacher. Teacher can delete ,edit,view student by login successfully. Before successfully login teacher cannot access any feature.

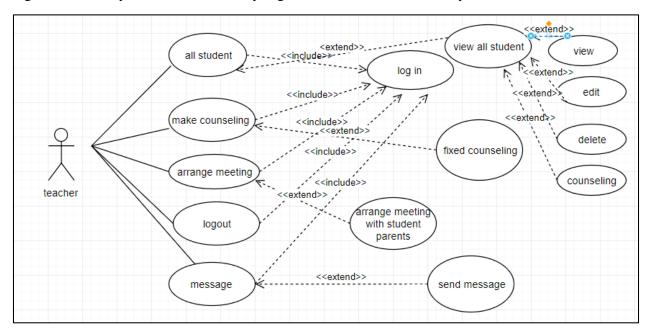


Figure 3.3: Screenshot of use case for the teacher

3.4 Logical Data Model

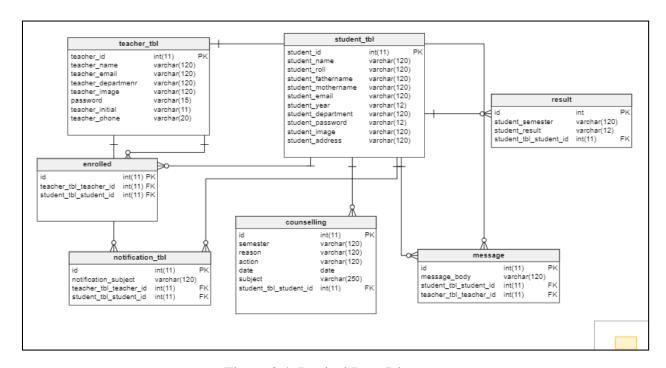


Figure 3.4: Logical Data Diagram

3.5 Design Requirements

We used CSS and Bootstrap for website design. Here teacher can join with students and can contact with student along with their parents. Student can registration and after that they can update their profile and join with teacher. They also message to the teacher and set a counseling date and time with the teacher. All of this system we design by the CSS and bootstrap.

CHAPTER 4

Design Specification

4.1 Front-end Design

A good looking of the front-end has a great impact on the application. Here we use HTML, CSS, Bootstrap, javascript. HTML(hyper markup language) is the markup language for making the basic structure. CSS is used for design our pages and give a good look to our project interface. We also use bootstrap to make a responsive web site that anybody can use our application from any place with any device. And more attractive look we use javascript. For used javascript our site some information loaded once time in his or her web browser and not load every time for this our site become more easy to use and comfortable. And use more functionality by using javascript that we can use our feature more easily.

4.2 Back-end Design

For back-end developing we use php and laravel framework which is belongs to php. We use php and laravel as a server side scripting language. We also maintain MVC pattern so that our project goes a slandered value. In future any one can develop the application very easily.

4.3 Interaction Design and UX

To design the website all pages like student login, student profile, update result, teacher profile and all other pages are given bellow:

4.3.1 Homepage

This is the homepage for student' care. This page is also known as main page and this is the main page of the site. After enter into our site teacher and student can see this page first. In figure 4.1 show the home page of the student's care.

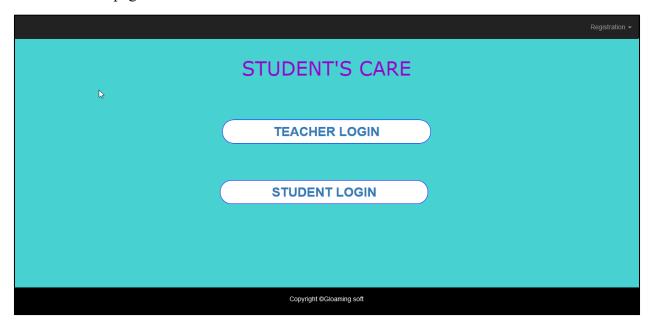


Figure 4.1: Screenshot of the homepage of the application

4.3.2 Registration

There are 2 types of user who try to registration to this website one is teacher and another is student. By clicking registration select teacher registration, teacher can registration to this site. In figure 4.2 show the teacher registration page.

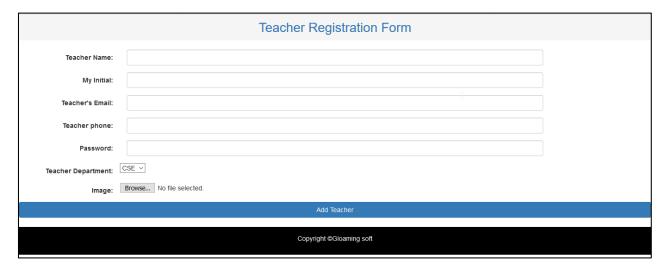


Figure 4.2: Screenshot of teacher registration page of website

In figure 4.3 show the registration page for the student. Every student have to registration at first. Without registration no student can access to login.

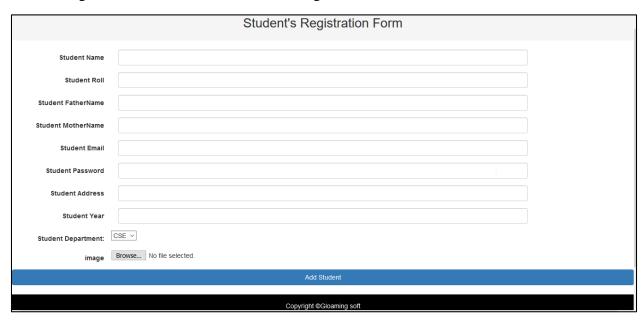


Figure 4.3: Screenshot of the student registration page of website

4.3.3 Login

After successfully registration a teacher or a student can successfully login to the site by use only email and password. In figure 4.4 show the teacher login page.

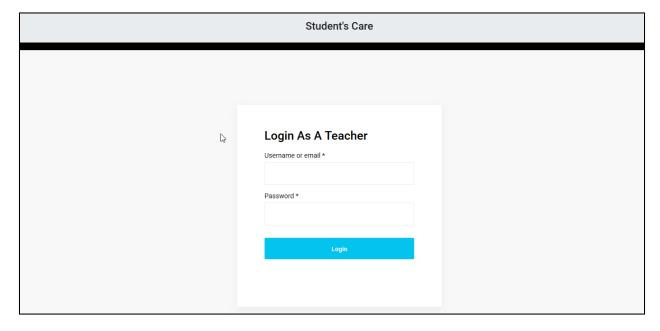


Figure 4.4: Screenshot of the teacher login page of the website.

In figure 4.5 show the student login page of the website. Student can login into our site by enter their email and password. If their email or password is not match with their registration documentation they cannot login.

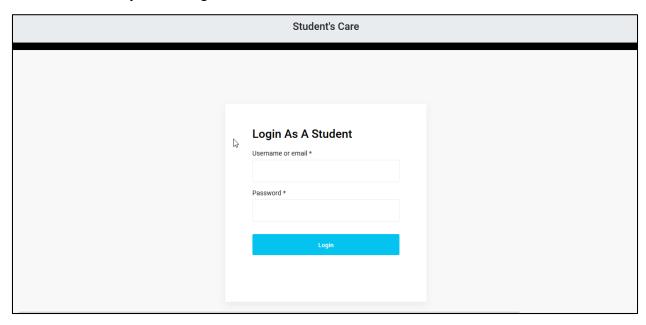


Figure 4.5: Screenshot of the student login page of the website.

4.3.4 Teacher's profile

In figure 4.6 show the teacher's profile of the website. After successfully login teacher can first show this page. If he/she logout from this site he/she need to login again.

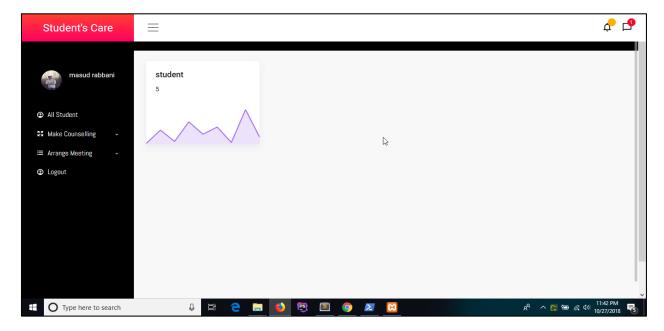


Figure 4.6: Screenshot of teacher's profile page of the website.

4.3.5 Teacher can see all student profile

By clicking all student option teacher can see all student who are joined with him/her. In figure 4.7 show the page of all student who are join with teacher in this project.

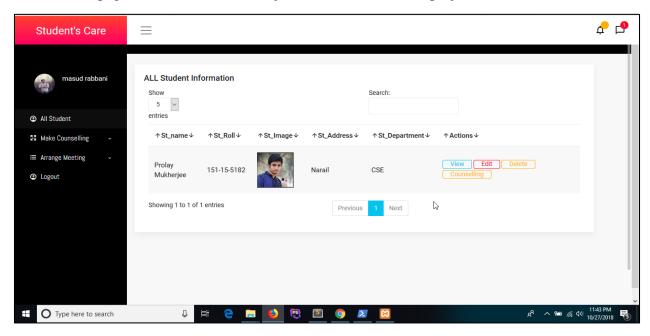


Figure 4.7: Screenshot of the all student page who are join with teacher

4.3.6 Teacher make student counselling

A teacher can also make a counselling with student by using our counselling option. In figure 4.8 show how teacher make counselling with student in below.

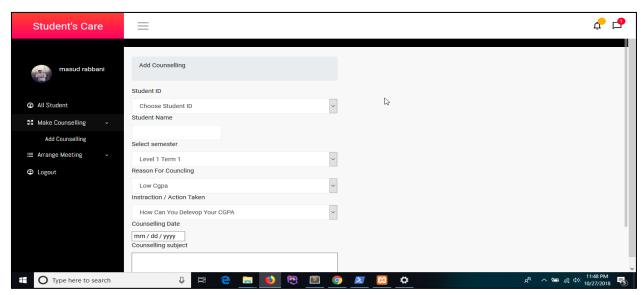


Figure 4.8: Screenshot of make counselling with student

4.3.7 Teacher arrange a meeting with student's parents

If teacher want to meeting with students parent he/she can also arrange a meeting by clicking arrange meeting. In figure 4.9 show the page of arrange meeting with parent that will create teacher.

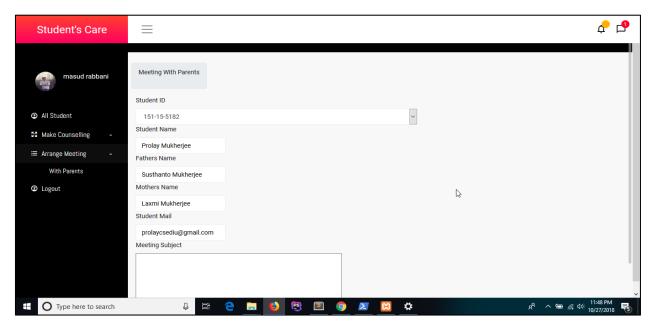


Figure 4.9: Screenshot of arrange meeting with student's parents

4.3.8 Student profile

After successfully login student can see this page first. In figure 4.10 show the student profile page that how it looks like.

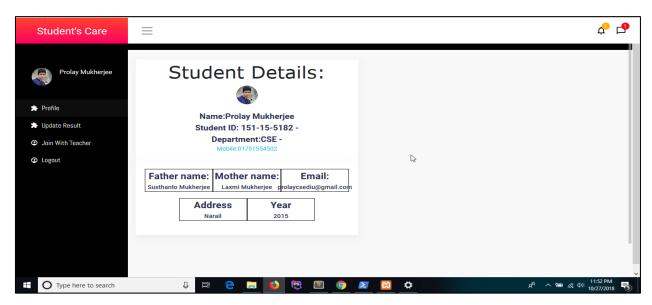


Figure 4.10: Screenshot of student profile page

4.3.9 Student can update their result

Every semester student need to update their result. For this they should click update result option. In figure 4.11 show how student can update their result.

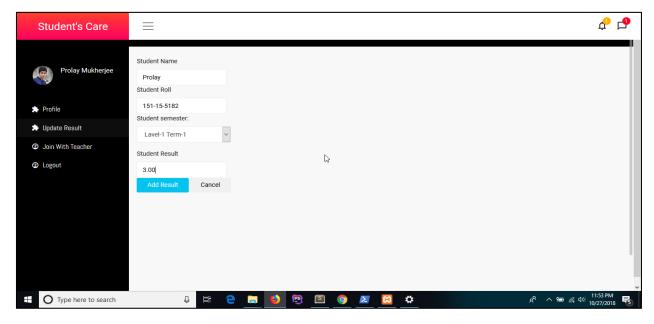


Figure 4.11: Screenshot of update result by student page.

4.3.10 Student can join with teacher

Every student need to join with his/her course moderator by their teacher code. In figure 4.12 show how student can join with their teacher.

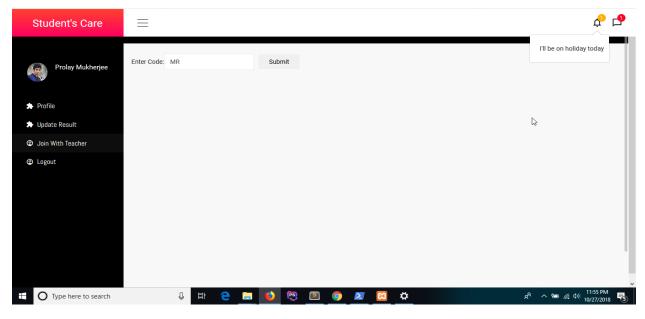


Figure 4.12: Screenshot of join with teacher page.

4.3.11 student can send message

If any student face any problem then he/she directly message his/her teacher and can send him about their problem. In figure 4.13 show how a student can send a message to his/her teacher.

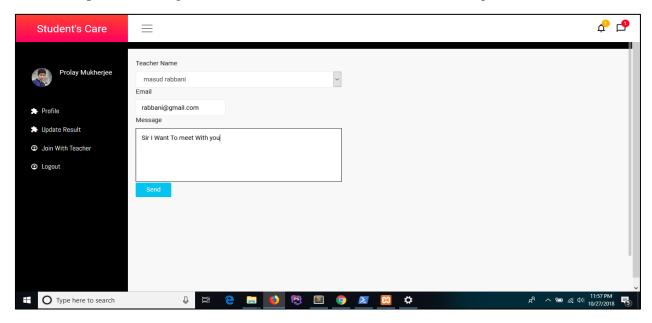


Figure 4.13: Screenshot of send message to teacher.

4.3.12 Teacher can send message

If a teacher seem that he need to talk with his student he can message his student by our system smoothly. In figure 4.14 show how a teacher can send message to his/her student.

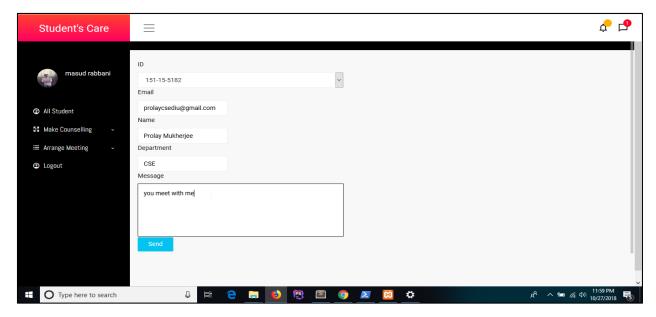


Figure 4.14: Screenshot of send message to student.

4.3.14 Teacher create an announcement for all student

If teacher wanted make an announcement to all student they can also make it by our website easily. In figure 4.15 show how teacher make an announcement for all student.

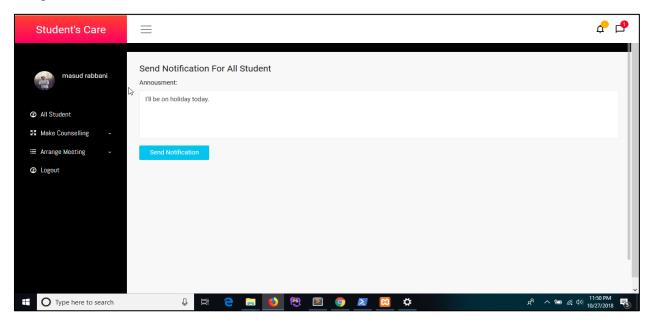


Figure 4.15 Screenshot of announcement for all student.

4.3.15 See all counselling

Teacher can see all counselling that is already done with their student. In figure 4.15 show all counselling that happened with student.

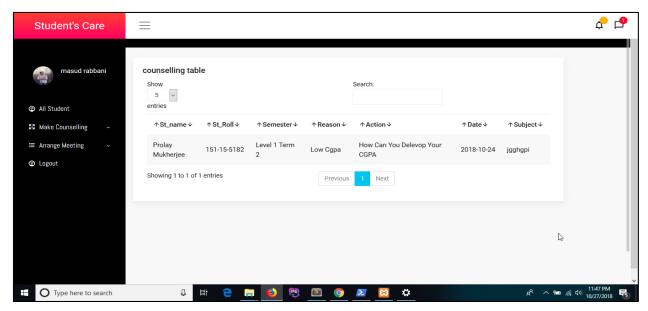


Figure 4.16: Screenshot show all counselling page.

4.4 Implementation Requirements

We use subline text editor and Photoshop to design the image. We use xammp server to maintain our site by localhost and database work. We also use composer for laravel use in command line. This make our work more easy and comfortable.

CHAPTER 5

Implementation and Testing

5.1 Implementation of Database

Due to using php we make several kind of table which describe regarding the content attribute along with data types 5.1 shows the database table implementation diagram. During this time SQL query required to do actions. Within the model the information may be checked whether user will get the permission to input the information directly with in database. We will find 11 tables within our DBMS.

student_tbl: In this table all student information are saved.

teacher_tbl: all teacher information are saved here.

message: all message between student and teacher are kept here.

counseling: all counsellings information are saved here.

result: all students result are save here.



Figure 5.1: Screenshot of database table of phpmyadmin

5.2 Implementation of Front-end Design

It is very difficult to make a simple UI design for the users. We try our best level to make our website more responsible because there are lot of device like smart phone, tablets, desktop, 4k desktop are used now. So make a website responsible more challenging. Though we try our best. We try to give a good outlook or interface that impress our user. We also try to make our site friendlier as our user feel comfort to use our site.

5.3 Implementation of Interaction

We create our system with responsible website. And we make responsible UI for user friendly use. Within we use many icons and attractive button to make it more clearly. We hope both user like teachers and students all are very benefited by our site.

5.4 Testing Implementation

Testing is procedure for testing approaching implementation system where tester or system architect might find cases and spaces, could it be implementable and have limitation. Here we make some basic test to our system. We are given the value below:

Table 5.1: Test Case

Test Case	Test Input	Expected	Obtained	Pass/fail
		Outcome	Outcome	
1.student login	Login via	Successfully	Successfully	Pass
	various device	login	login	
	with real			
	information			
2.student	Empty all the	Show restriction	Field must be	Pass
registration	field	to fill all the	filled by data	
		field		
3.teacher login	Login via	Give real	Not login	Pass
	various device	information		
	with fake			
	information			
4. teacher	Full fill with real	Successfully	Successfully	Pass
registration	information	registration	registration	
5.join with	Give the true	Successfully join	Successfully join	Pass
teacher	code			
6.update result	Give the value	Successfully	Successfully	pass
		update	update	
7.send message	Give the all	Successfully	Successfully	Pass
to teacher	information	send message	send message	

8.delete student information	Click the delete button	Successfully remove student	Successfully remove the	pass
			student	
9.send message to student	Write a message	Send message successfully	Send message successfully	Pass
10.send message to student's parent	Field are empty	Required the field fill-up	Show the required	pass
11.view the student all information	Click the view button	View all information	View all information successfully	pass
12. logout	Click logout button	Successfully logout	Successfully logout	pass

5.5 Result and Report

Test report is required to mirror testing creates a formal way, which supplies a scope to estimate testing result rapidly. It is a paper that records data acquired out of your evaluation experiment inside an organized manner, describe the environment or operating conditions and show the compare of test result with test objectives. Test report is more important that is need to understand the machine is prepared or not ready for implementation. We must let you know several types of testing. There are numerous types of testing. If the system pass through all these types of testing it is finally ready to lunch so at the end we can carry out the result as the benefits of usability testing.

Table 5.2 Benefits of usability testing table

Benefits of Usability Testing	Yes	No
Good Quality of website		
System is easier to use		
Website is rapidly accepted by users		
Easy to use for the new user		
Better UI for interaction		

CHAPTER 6

Conclusion and Future Scope

6.1 Discussion and Conclusion

With hypothetical tendency of our syllabus it turns out to be exceptionally fundamental to take at most favorable position of chance of increasing functional experience that tang along. We learn a lot from this project. We try to update this system until it goes to a suitable position. The project gives us an opportunity to interacting with teacher and student and gain a lot of experience from them.

6.2 Scope for further Development

Gradually our project work will be continue. We will make update our system day by day and try to publish it online so that user face more comfortable to use this site. Later on we will add more feature that both student and teacher are benefited. And try to solve the problem of our beta version project.

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APPENDIX

Part A:

Project Reflection

From fall 2017 semester we would have begun our journey to create an application where student can registration and teacher also can registration, and teacher can monitor the student and give them advice. We achieved our goal finally in fall 18 semester. And we will try to continuously upgrading our project.

Part B:

Plagiarism