

“University ERP Based on SMS Registration, Online Payment and Predicting Students’ Dropout”: A WEB BASE APPLICATION

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

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APPROVAL

This Project titled” **University ERP Based On SMS Registration, Online Payment And Predicting Students’ Dropout**”, submitted by Kanokchanpa Saha Bhowmik , Rapon Ghosh 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 and approved as to its style and contents. The presentation has been held on 09 December 2018.

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DECLARATION

We hereby declare that, this project has been done by us under the supervision of **Shah Md Tanvir Siddiquee, Senior 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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Finally, we must acknowledge with due respect for the proper support and patients of our beloved parents.

ABSTRACT

Enterprise resource planning (ERP) , integrated management of core business processes. It may be in real-time and mediated by software and technology. Now a days ERP is most important thing for any business. It is the core of management of any institute. In this era of internet, it has become familiar to a lot of people. Almost every big institution is becoming dependent on ERP. In this project we have built a web base ERP system. The “**University ERP**” made by us can be a better solution to any educational institution. We made it for the purpose of solving all kind of management problem of an educational institution. It can make easy of the management of any institution. Moreover, it will also predict many problems of students, stuffs and faculties by data mining algorithm. It will also predict the possibility of being dropout of a student. But the main thing is people will be able to perform many operations using their phone (through SMS) without internet. HTML, CSS, JavaScript and Angular JS is being used for the front-end and Laravel and PHP is being used for the back end. We worked on it following Scrum methodology. We have tested it in various stages and made it more effective.

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CHAPTER 1

Introduction

1.1 Introduction

We live in the digital world. Technology has made everything easy to us. We want to do everything easily staying home. Many web base applications helped us a lot in this case.

Our “ERP system” is such a web base software that will make the management easier. Students will be able to pay their fees online without waiting in bank line. They will also be able to register any course from the website, Even they can do it offline through SMS . The application will analysis students’ educational progress and result a report to the admin, the students’ and to their parents’ also. It will also make the stuff and routine management easy. Librarian’s tasks will also be easy.

1.2 Motivation

Every big business or company or educational institute needs an ERP to manage their system. In this era of technology managing the system manually will be boring and more tough to do. Everyone wants to become the first of the bank line. And manually course registration process takes a lot of time. We made this application only to solve this time of problem. Using this application making routine will be a very easy work for the institution.

1.3 Objectives

The objectives of this web application are given below: -

- ❖ Reducing time and cost.
- ❖ Ensuring safety and security of payment and all other private issues.
- ❖ Student, stuff, parents, librarian, faculty all will have their profile from where they will be able to manage their information.
- ❖ Making the process more effective and efficient.

1.4 Expected Outcome

This application will be fruitful to many categories of people. Student will be able to give examination through this application, pay their fees, see their result, being registered to the new semester, analysis their progress, know their drop out prediction, know the class routine, get message from teacher. Parents can know about their children's progress, message to any teacher, pay their children's fees. Faculties can know about the class time, his/her student, can read SMS from students, can know about the students' progress. Librarian can maintain the book giving process. Admin can manage all thing, make routine, visit each profile, know about the information of students' progress, update/edit/delete any type of user(student, parent, teacher, stuff, librarian) .

1.5 Report layout

This report has six chapters.

- ❖ 1st chapter - Introduction, motivation, objectives, expected outcomes.
- ❖ 2nd chapter - The background of the project, related works, comparative studies, scope of the problem, challenges of the project.
- ❖ 3rd chapter- Required specification (Business process modeling, requirement collection and analysis, use case modeling and description, logical data model, design requirements).
- ❖ 4th chapter- Design for front-end and back-end, implementation requirements.
- ❖ 5th chapter- Implementation of database, testing implementation and test results.
- ❖ 6th chapter- Conclusion of our project, scope for the future work.

CHAPTER 2

Background

2.1 Introduction

In this digital world all industries, universities, schools have become very big. People have to manage this system. It is complicated to manage a big system manually. But an ERP can solve this problem easily. In case of a University if there is an ERP each people (student, teacher, staff) related with the University can maintain his/her own profile. With a university ERP time setting for student, teacher, staff become easier. All payment calculation become easy and everybody can get their own information easily. The teacher neither have to maintain documentation in paper nor the students because they can take exam online and also can publish result online. This will make easy day to day life.

2.2 Related work

There is some related application in web.

2.2.1 daffodilvarsity.edu.bd

[1]daffodilvarsity.edu.bd is a web-based application which is a University ERP. It manages system for student, faculty, library, alumni, admission etc. Student, faculty have their own portal. Student can get their result information, payment information from their portal, and collect any information of any faculty from faculty members' profile pages . It is one of the best University ERP of Bangladesh .

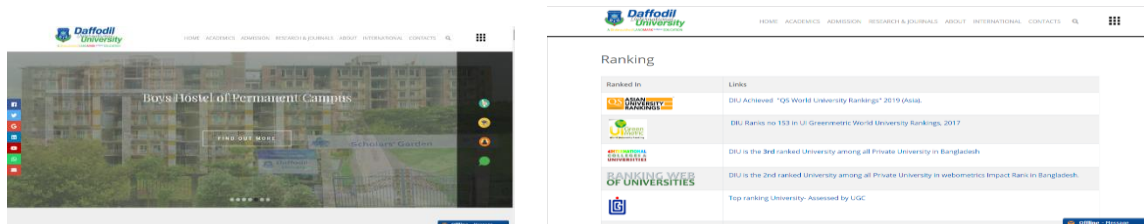
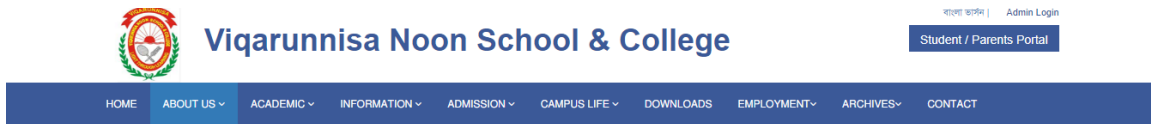


Figure 2.2.1: daffodilvarsity.edu.bd

2.2.2 vnschool.edu.bd

[2]vnschool.edu.bd is an application for college and school students .



History

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একটি সুশিক্ষিত, সুন্দর ও শ্রেষ্ঠ শিক্ষা প্রতিষ্ঠান একটি জাতির আত্মোন্নয়নের অপরিহার্য অঙ্গ। একটি যথার্থ বিদ্যালয়ই পারে জাতির মানুষ তৈরির স্বপ্নকে বাস্তবায়ন করতে। বাংলাদেশের যে কয়টি বিদ্যালয় এই মহান দায়িত্বকে মাথা পেতে নিয়েছে ভিকারুননিসা নুন স্কুল ও কলেজ তার মধ্যে একটি।

ভিকারুননিসা নুন স্কুলটি বাংলাদেশের রাজধানী ঢাকার কেন্দ্রস্থলে রমনা থানাধীন ১/এ নিউ বেইলী রোডে অবস্থিত। ঢাকার গুলিস্তানের জিরো পয়েন্ট থেকে এর দূরত্ব আনুমানিক এক কিলোমিটার এবং ঢাকা জিয়া বিমান বন্দর থেকে দূরত্ব আনুমানিক দশ কিলোমিটার। এই স্কুলটির বাজ সর্বপ্রথম প্রোথিত হয়েছিল ১৯৪৭ সালে যা রমনা প্রিন্সিপালের স্কুল নামে রমনা জিমখানায় স্থাপিত হয়েছিল। পরবর্তীতে ১৯৫০ সালে তৎকালীন পূর্ব পাকিস্তানের গভর্নর জনাব ফিরোজ খান নূনের বিদেশী পত্নী বেগম ভিকারুননিসা নুন স্কুলটি পরিদর্শনে এসে এর ব্যবস্থাপনা, শিক্ষাপদ্ধতি, নিয়মশৃঙ্খলা দেখে মুগ্ধ হন এবং বেইলী রোডে ১৯৫২ সালের ১৪ জানুয়ারী ভিকারুননিসা নুন স্কুলটি প্রতিষ্ঠিত করেন। স্কুলটি পর্যায়ক্রমে ভিকারুননিসা সিনিয়র কেমব্রিজ স্কুল হিসাবে পরিবর্তিত হয়। ১৯৭২ সালে বাংলাদেশের স্বাধীনতা উত্তরকালে একটি সম্পূর্ণরূপে বাংলা মাধ্যম স্কুল হিসাবে পরিচিত হয়। ১৯৭৮ সালে স্কুলটি মাধ্যমিক পর্যায় থেকে উচ্চ মাধ্যমিক পর্যায়ে উন্নীত করা হয়। ক্রমান্বয়ে ছাত্রীভর্তির চাপে ১৯৮৬ সালে স্কুলের একটি বেকালিক শাখা খোলা হয় এবং আরো সম্প্রসারণের লক্ষ্যে ১৯৯৫ সালে ধানমন্ডি এলাকায় স্কুলের একটি ব্রাঞ্চ বৃদ্ধি করা হয়। সেখানেও প্রভাতী ও বেকালীন দুটি শাখা চালু হয়ে যায়। ১৯৯৫ সালে মূল ভবনে ষষ্ঠ শ্রেণী থেকে ইংরেজি মাধ্যম শুরু হয় যা পর্যায়ক্রমে উচ্চ মাধ্যমিক পর্যন্ত উন্নীত হয়। ২০০৫ সালে ইংরেজি মাধ্যমে প্রথম শ্রেণী খোলা হয় এবং ২০০৬ সালে তা চতুর্থ শ্রেণী পর্যন্ত বর্ধিত করা হয়। ২০০০ শিক্ষাবর্ষে ক্রমাগত ছাত্রীভর্তির চাহিদা ও নারী শিক্ষা সম্প্রসারণের উদ্দেশ্যে বসুন্ধরায় প্রভাতী ও বেকালিক শাখায় প্রথম থেকে ষষ্ঠ শ্রেণী পর্যন্ত দুটি শাখা সম্প্রসারণ করা হয় যা পরবর্তীতে ক্রমপায়ে দ্বাদশ শ্রেণী পর্যন্ত উন্নীত করা হবে। ২০০৪ সালে ভিকারুননিসা নুন স্কুলের সম্প্রসারণ ও অগ্রগতির আরও একটি বার্তা বয়ে এনেছে সরকারি অনুকূলে প্রাপ্ত আজিমপুরে একশত জমি প্রাপ্তি। যেখানে ধানমন্ডি শাখাকে স্থানান্তরের উদ্দেশ্যে মাননীয় প্রধানমন্ত্রীর কর্তক ভিত্তিপত্রের স্বাপন করা হয়েছিল। ধানমন্ডি শাখার

Useful Links

- [Message from Chairman](#)
- [Message from Principal](#)
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- [History](#)
- [Virtual Campus Tour](#)
- [Master Plan](#)
- [Vision & Objectives](#)
- [Achievements](#)
- [Infrastructure](#)

Figure 2.2.2 : vnschool.edu.bd

2.2.3 squarehospital.com

[3] squarehospital.com is a hospital ERP. It has online payment facility. Moreover, they have short code service which is hardly found in any ERP.

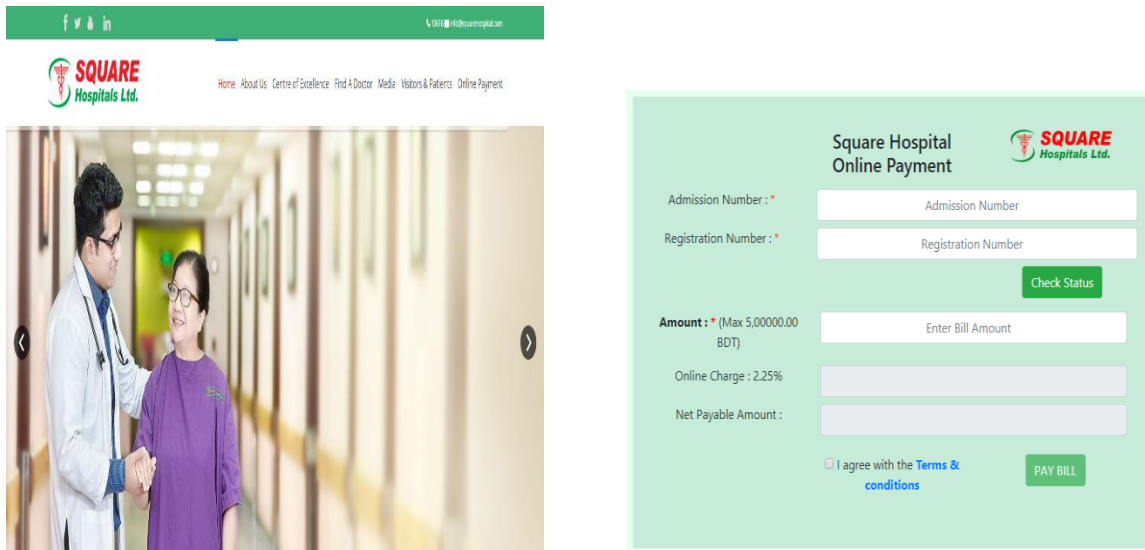


Figure 2.2.3 : squarehospital.com

2.3 Comparative studies

All of these web applications are useful to user. But they have lacking in the time management system. But in our project, we have made an advanced routine management system. Moreover, students have to register manually through these portals. But we have an online registration system. Students can also register for new semester through SMS. Here is also online exam system.

2.4 Scope of the problem

We tried our best to make a user-friendly ERP. Managing routine of a very big institute through website is very problematic. Moreover, dynamic registration can also make collision. But we have been able to overcome all of these problems.

2.5 Challenges

Challenges and obstacles are a part of our day to day life. So, we have also faced challenges in our project. We have to make many filters, which is very tough to calculate. More challenging task was making filter of the possibilities of students' dropout using decision tree. And keeping best quality of the web application was the most challenging part.

CHAPTER 3

Requirement Specification

3.1 Requirement analysis and collection

It is very important to do requirement analysis and collection in a web application. But to do this we need two types of requirements. They are 1. Functional and 2. Nonfunctional. There are many functional requirements in our application like sign in, register etc.

3.2 Use case modeling and design

It refers to the relation between actor and action. But use case we can learn about the whole project. Use case model of our project is given below:-

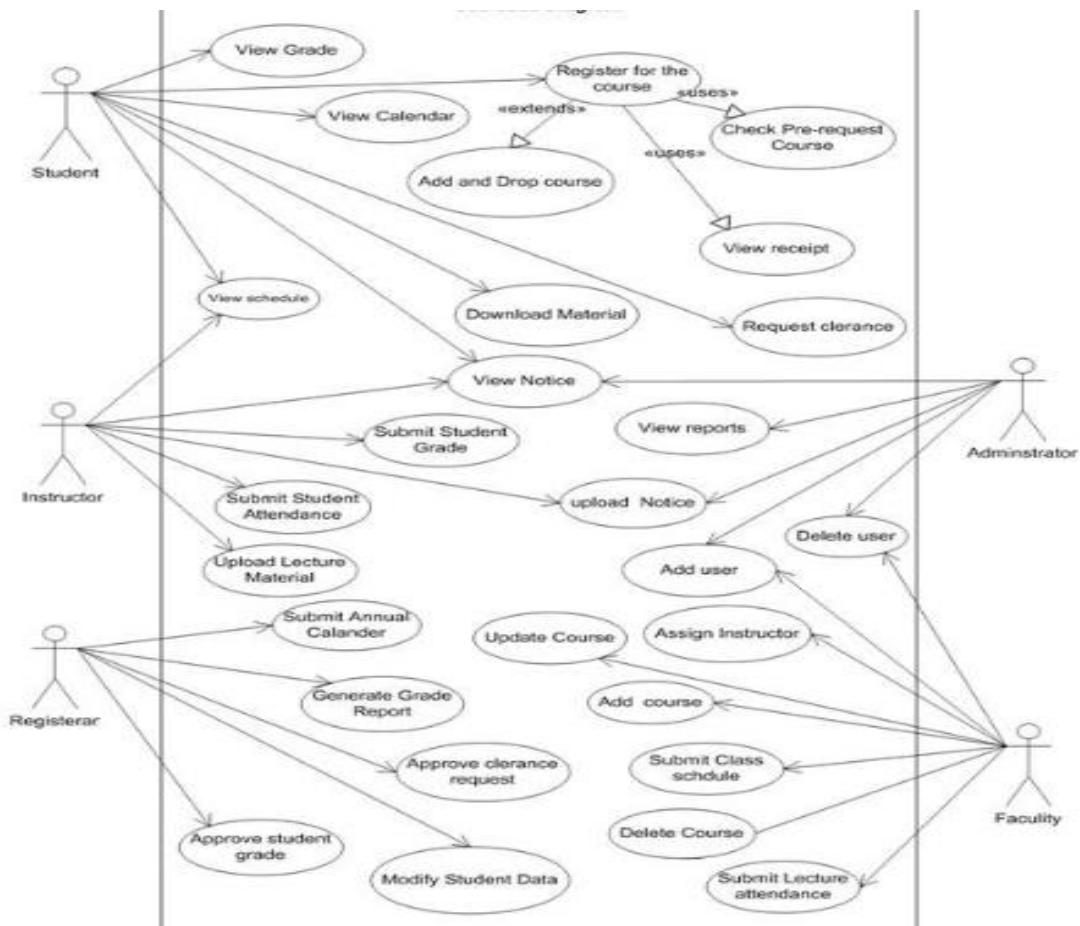
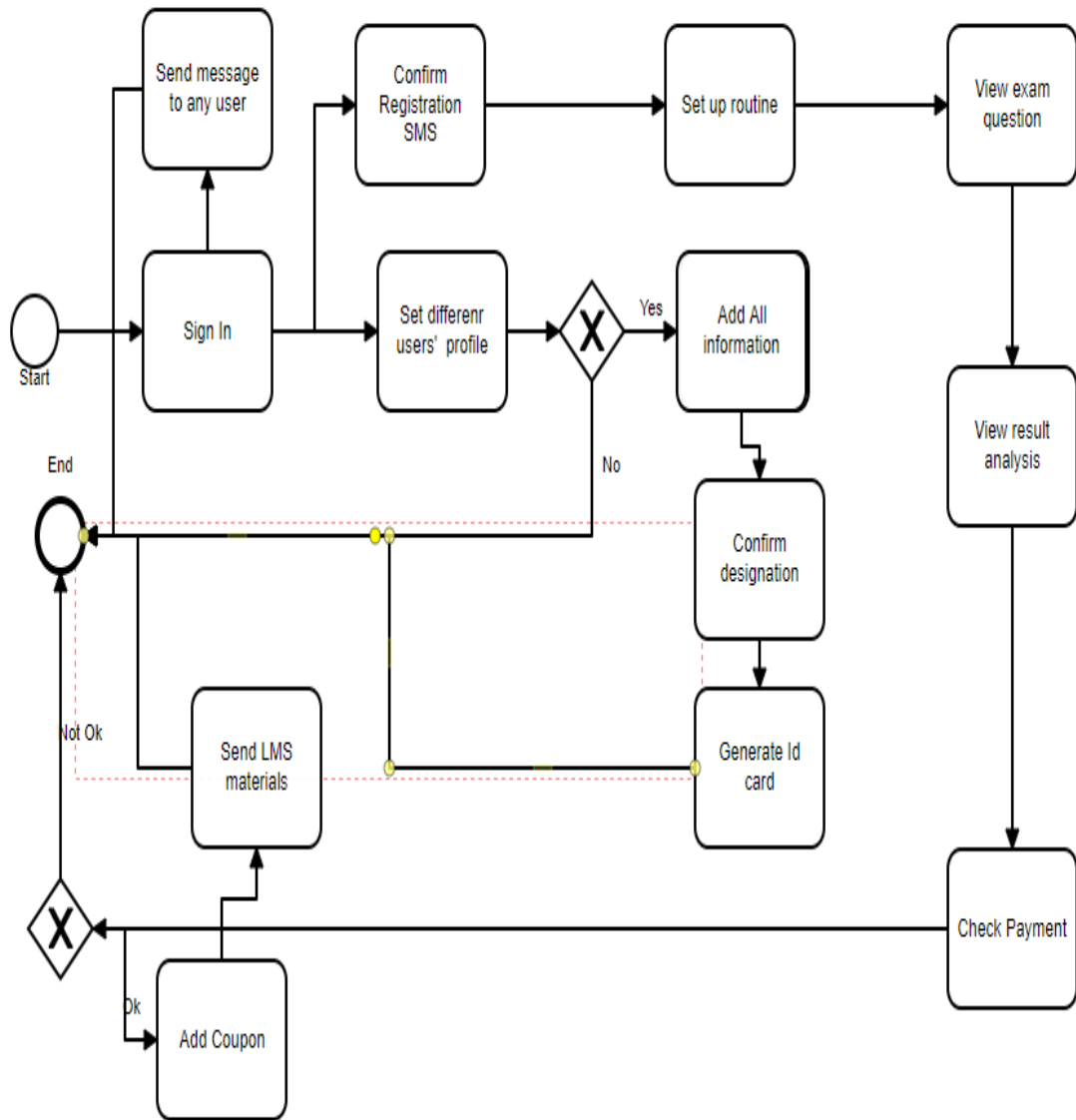


Figure 3.2.1: Use case Modelling and designing

3.3 Business process model

It is very important for any project. It reflects any project shortly. Business process model for our project is given below: -



privacy

Figure 3.3.1: Business process model(admin)

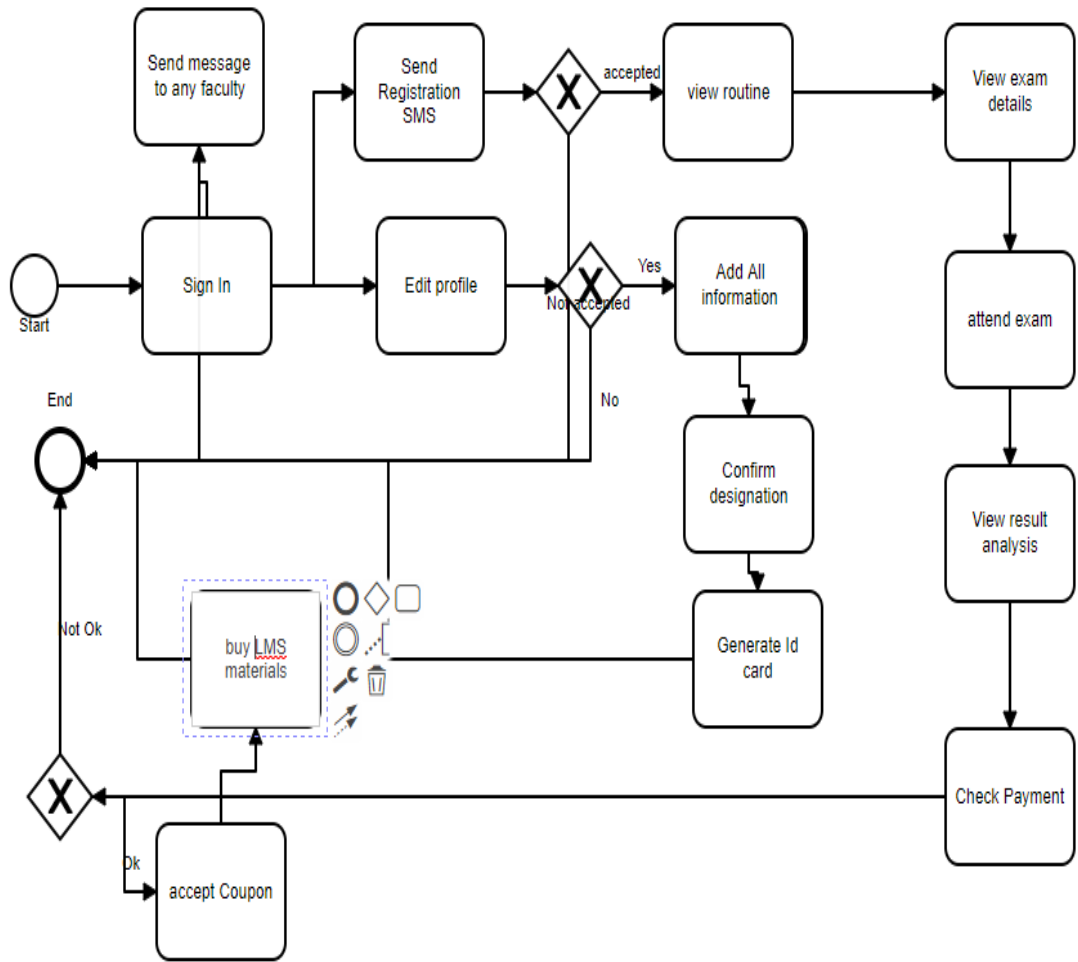


Figure 3.3.2: Business process model(student)

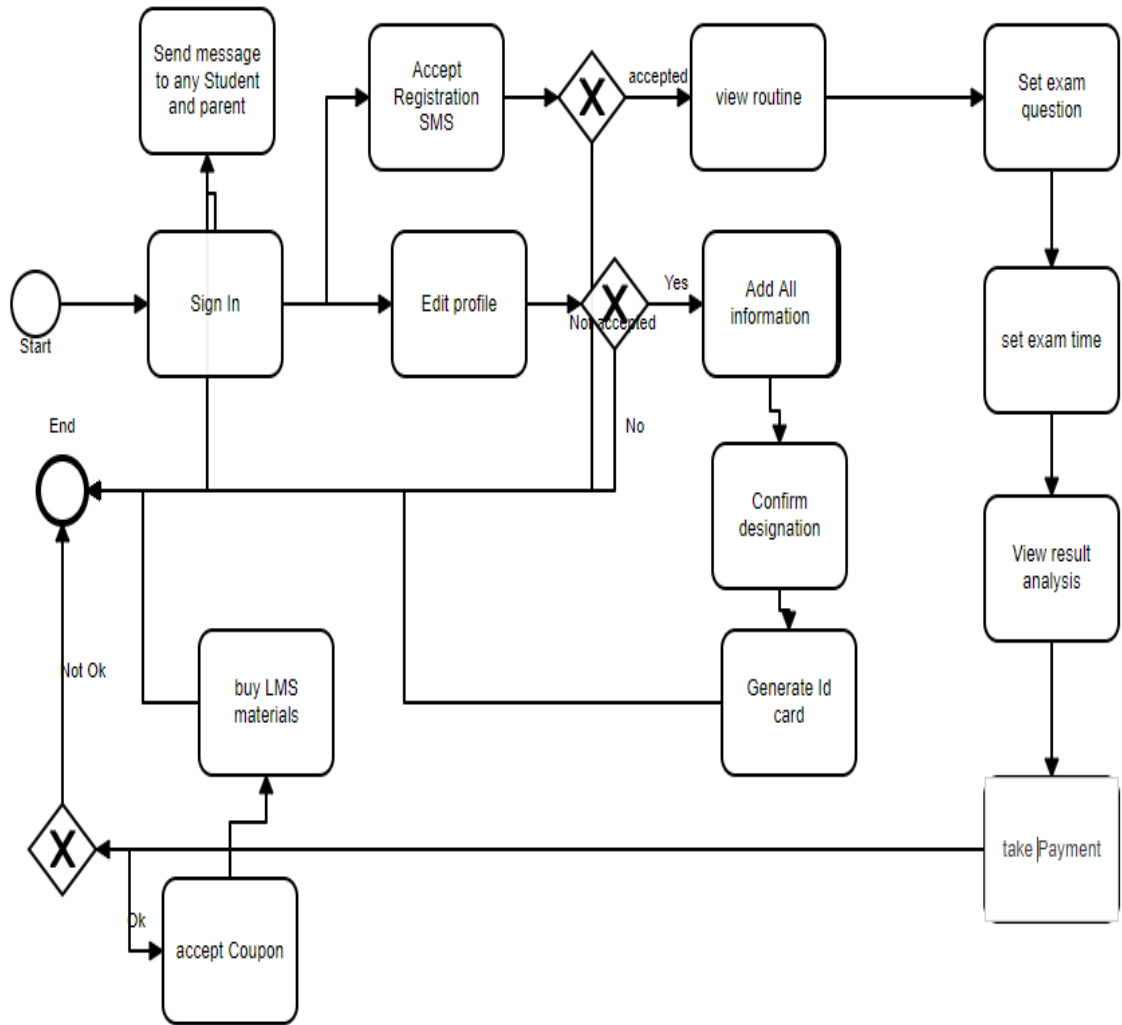


Figure 3.3.3: Business process model(faculty)

3.4 ER-diagram

An entity relationship (ER) diagram reflects the data model of any project. It shows the interconnection between entity and attributes. Relation type is also represented here.

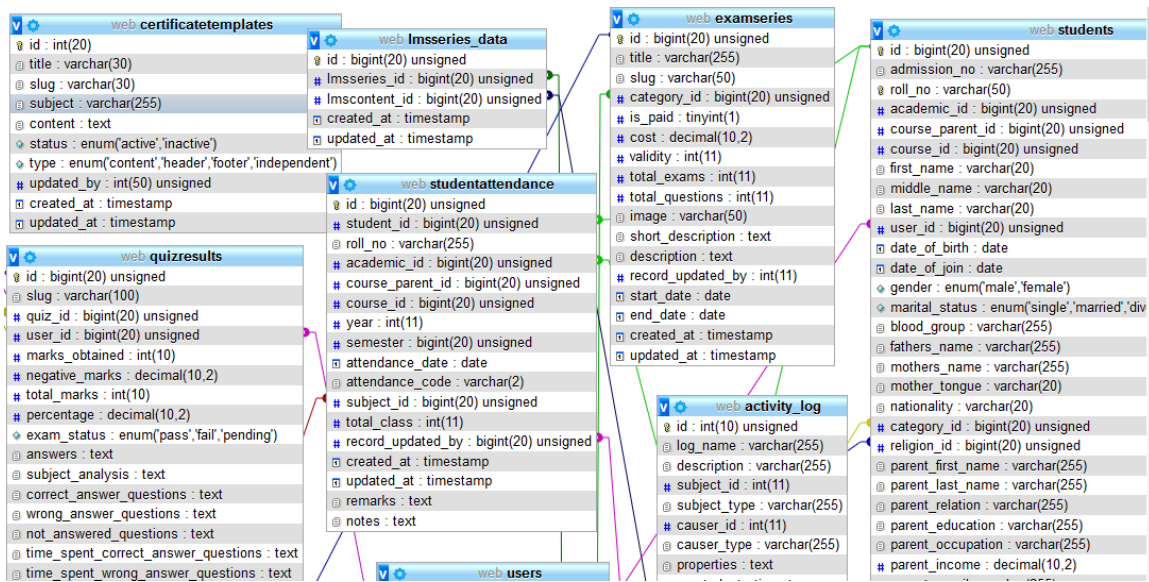


Figure 3.4.1: E-R Diagram(part-1)

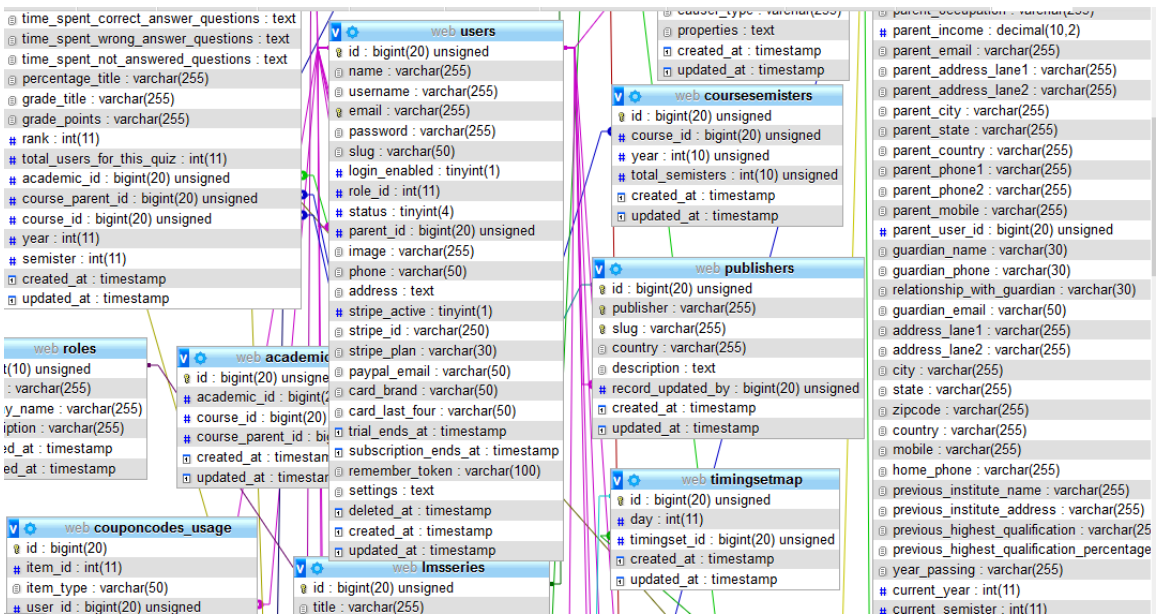


Figure 3.4.2: E-R Diagram(part-2)

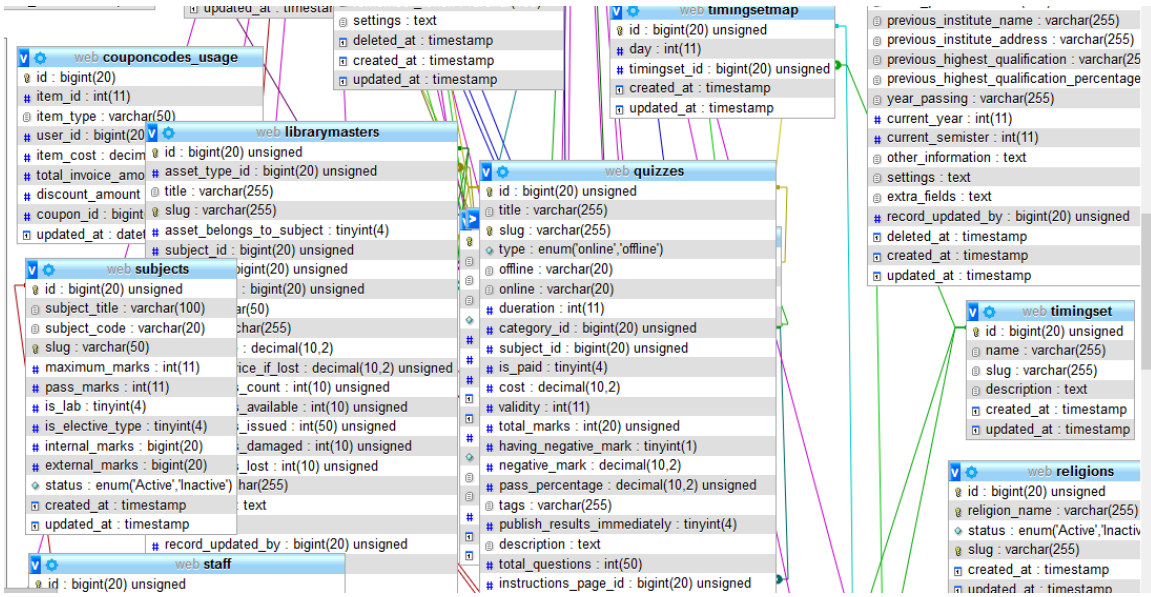


Figure 3.4.3: E-R Diagram(part-3)

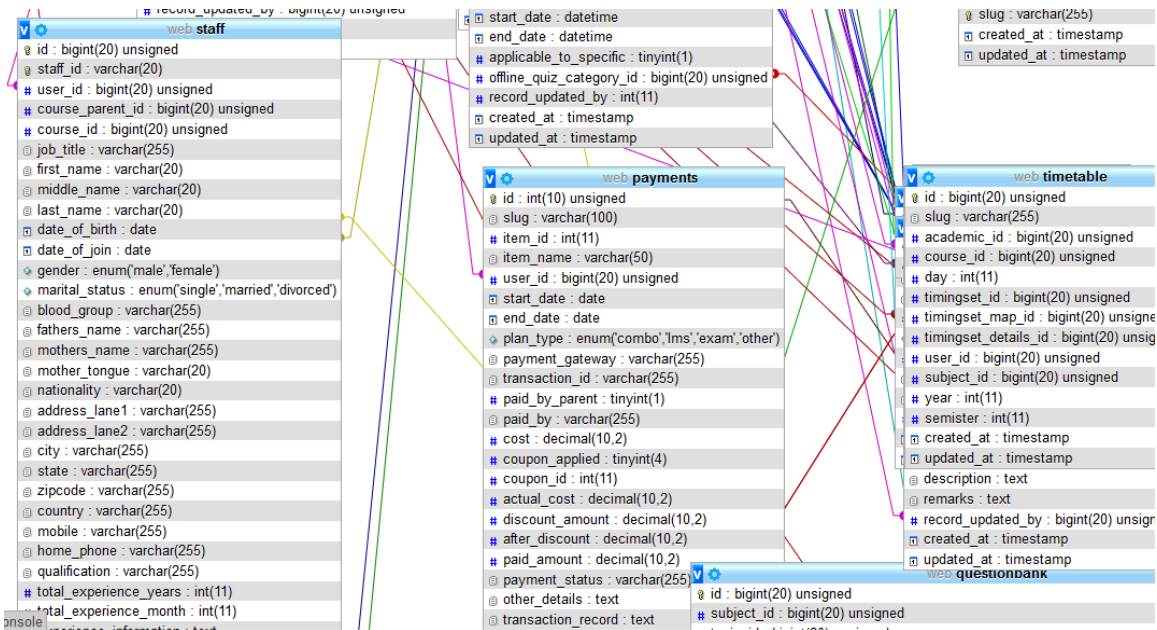


Figure 3.4.4: E-R Diagram(part-4)

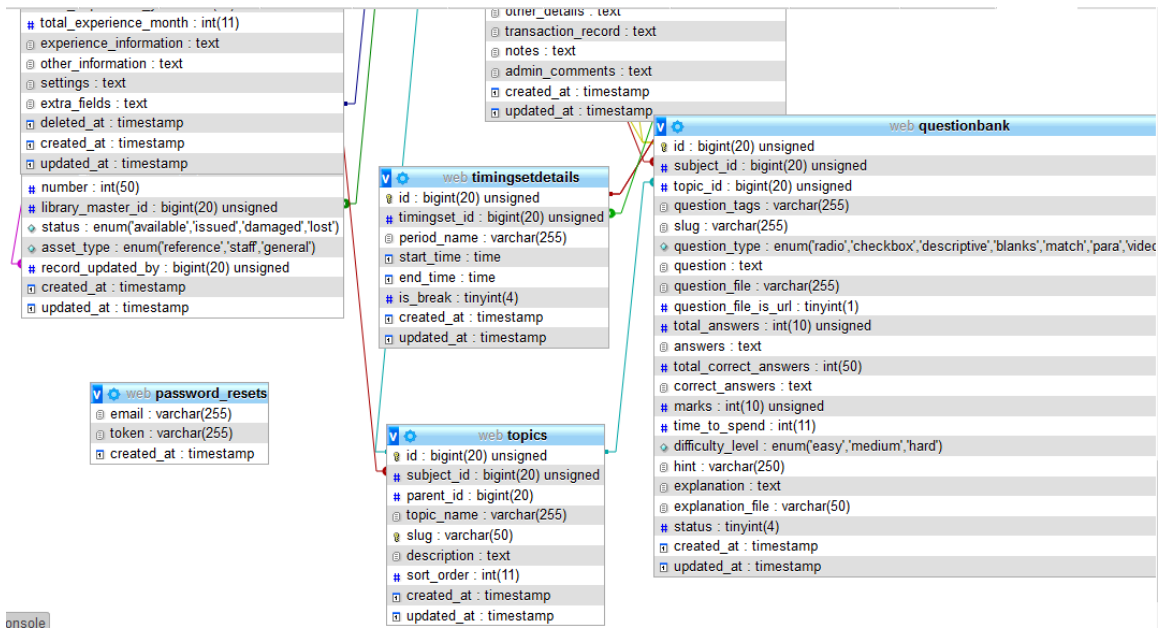


Figure 3.4.5: E-R Diagram(part-5)

3.5 Design requirement/analysis

For admin we include –

- ❖ Set Profile
- ❖ Messaging with parent, student, teacher, staff
- ❖ Add details of any type of user
- ❖ Assign timetable for all
- ❖ Publish learning material
- ❖ Payment check
- ❖ Visit students’ progress and drop out possibility

For student we include-

- ❖ Set Profile
- ❖ Filter result and drop out possibility
- ❖ Messaging with faculty
- ❖ Semester registration through short code
- ❖ Attend exam(online)
- ❖ View result analysis
- ❖ View routine
- ❖ Buy learning material
- ❖ See details
- ❖ Pay payment

For faculty we include-

- ❖ Set Profile
- ❖ Filter result
- ❖ Messaging with student, parent, admin
- ❖ View routine
- ❖ Set exam and question
- ❖ See details
- ❖ Take payment

For parents we include-

- ❖ Set Profile
- ❖ Filter result
- ❖ Messaging with faculty
- ❖ See details
- ❖ Pay payment

For staff we include-

- ❖ Set Profile
- ❖ Messaging with admin
- ❖ See details
- ❖ Take payment

For librarian we include-

- ❖ Set Profile
- ❖ Messaging with admin
- ❖ See details
- ❖ Maintain book giving and receiving process
- ❖ Take payment

CHAPTER 4

Design Specification

4.1 Font-end design

Front-end design is very important for a project. But we have made our portal system. That's why all are back end. That back end is being used s panel. Only log in page can be front end here.

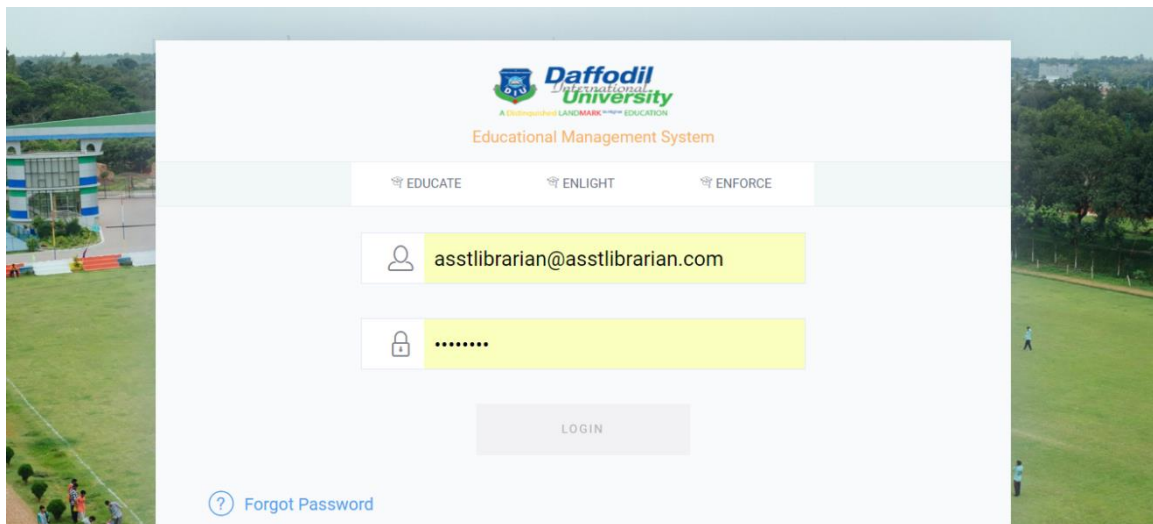


Figure 4.1.1: login

4.2 Back-end design

In our project back-end design is the main part.

Our project back end design is given below: -

For admin:

Recent Online Payments

Name	Item	Gateway	Paid	Status
Jaron O'Conner	Engineering Economics and Management Internal Exam	Payu	0.00	Cancelled
Jaron O'Conner	Engineering Economics and Management Internal Exam	Payu	0.00	Cancelled
Jaron O'Conner	Data Structures Internal Exam One	Paypal	100.00	Success
Helena Lehner	Advanced Heat and mass Transfer External Exam	Paypal	30.00	Success
Helena Lehner	Advanced Heat and mass Transfer External Exam	Paypal	0.00	Cancelled

Recent Offline Payments

Name	Item	Gateway	Paid	Status
Jaron O'Conner	Database Management Systems External Exam	Offline	0.00	Pending
Jaron O'Conner	Operating Systems External Exam	Offline	100.00	Success
Helena Lehner	Operating Systems External Exam	Offline	150.00	Success
Helena Lehner	Data Structures Internal Exam One	Offline	30.00	Success
Jaron O'Conner	Computer Organization and Architecture Internal Ex	Offline	0.00	Cancelled

Figure 4.2.1: dash board

After logging in this page will be show to all according to their activity

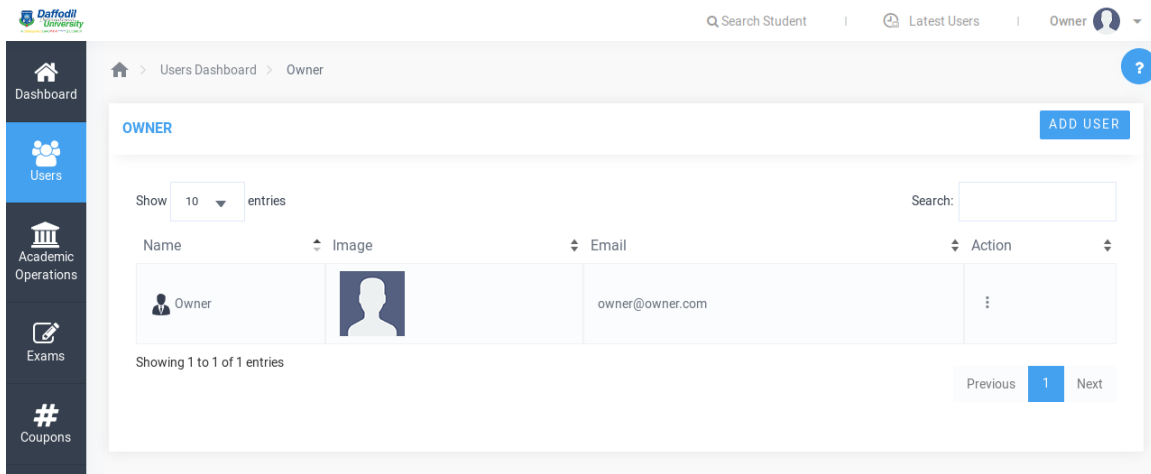


Figure 4.2.2: owner details

Here owner details are shown. Admin can add, delete, update owner.

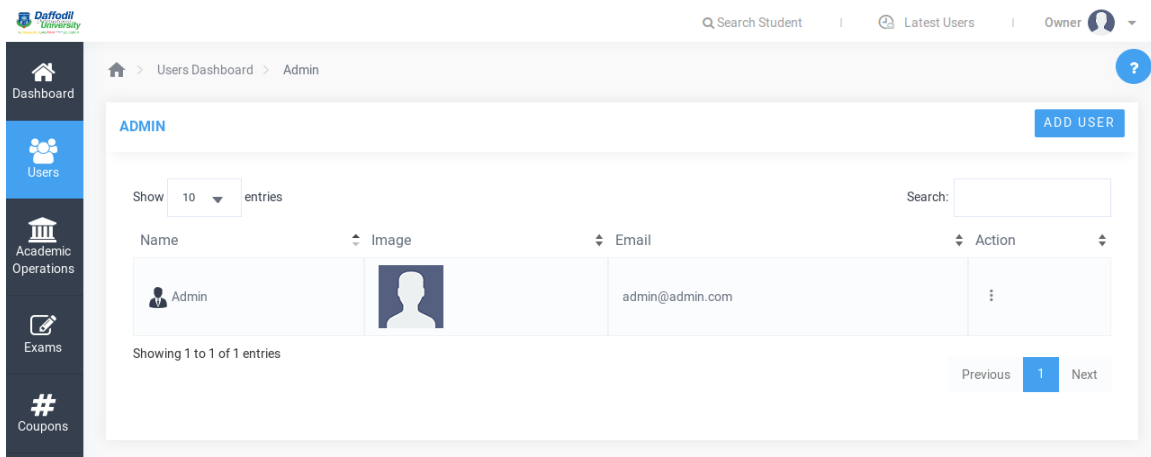


Figure 4.2.3: admin details

Here admin details are shown.

Dashboard > Users Dashboard > Users

USERS ADD USER

Show 10 entries Search:

Name	Image	Email	Role	Action
Librarian		librarian@librarian.com	Librarian	
Admin		admin@admin.com	Admin	
Owner		owner@owner.com	Owner	
KANOK CHANPA SAHA BHOWMIK		rinky.saha360@gmail.com	Student	
Ford Keeling		emmerich.meagan@walsh.com	Staff	
Jaron O'Conner		brannon77@yahoo.com	Student	
Helena Lehner		louisa52@shanahan.biz	Student	
Joanne Jenkins		carrie06@reichert.biz	Staff	
Parent		parent@parent.com	Parent User	
Myles Olson		kyla51@wisozk.org	Student	
Perry Rolfsen		fbraun@swift.com	Student	
Sanford Powlowski		alec.glover@yahoo.com	Student	
Braulio Brekke		schamberger.amelia@hotmail.com	Student	
Miss Dariana Kassulke		ervin.pollich@hessel.com	Student	
Asst Librarian		asstlibrarian@asstlibrarian.com	Assistant Librarian	
Della Carter		mortimer95@bechtelar.com	Staff	
Hayden Zboncak		rahul.schmeler@yahoo.com	Staff	
Brandon Reynolds		ggerhold@hotmail.com	Staff	
Abigail Thiel		cara.lehner@harris.com	Staff	
Sammy Ziemann MD		joenny37@bogisich.info	Student	
Ardith Turner		ljaskolski@yahoo.com	Staff	
Mr. Kiley White		marlee14@schroeder.com	Staff	
Daron Toy		fconn@hotmail.com	Staff	
King Mohr		claudine.rutherford@hotmail.com	Staff	
Ms. Delta Mann IV		alaina.parker@yahoo.com	Staff	

Search Student | Latest Users | Owner

















Figure 4.2.4: librarian details


Here librarian details are shown. Admin can add, delete, update librarian.

Dashboard > UsersDashboard > Staff

STAFF ADD USER

Show 10 entries Search:

Name	Image	Staff Id	Job Title	Branch	Email	Action
 Ford Keeling		ACA2711	Asst. Prof	Graduation	emmerich.meagan@walsh.com	⋮
 Della Carter		ACA2692	Asst. Prof	Graduation	mortimer95@bechtelar.com	⋮
 Brandon Reynolds		ACA2709	Professor	Graduation	ggerhold@hotmail.com	⋮
 Abigail Thiel		ACA2693	Asst. Prof	Graduation	cara.lehner@harris.com	⋮
 Katelyn Terry		ACA2728	Asst. Prof	Post Graduation	gcrooks@hotmail.com	⋮
 Ardith Turner		ACA2731	Professor	Post Graduation	ljaskolski@yahoo.com	⋮
 Mr. Kiley White		ACA2730	Professor	Post Graduation	marlee14@schroeder.com	⋮
 Daron Toy		ACA2727	Asst. Prof	Post Graduation	fconn@hotmail.com	⋮

Search Student |
 Latest Users |
 Owner 

LMS |
 Library |
 Master Settings |
 Payment Reports

Figure 4.2.5: staff details

Here staff details are shown. Admin can add, delete, update staff.

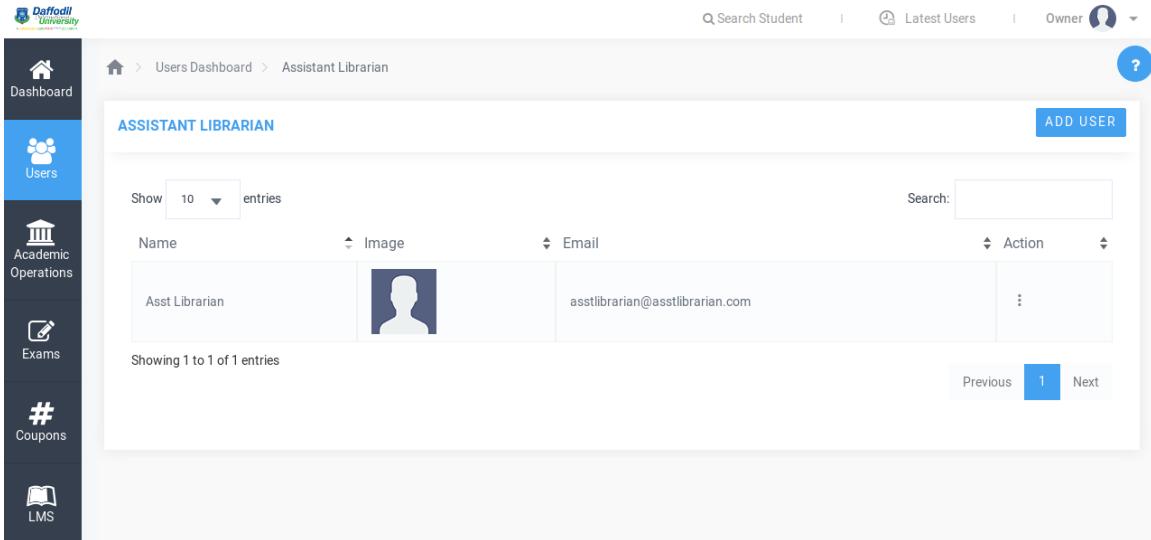


Figure 4.2.6: assistant librarian details

Here assistant librarian details is shown. Admin can add , delete, update librarian .

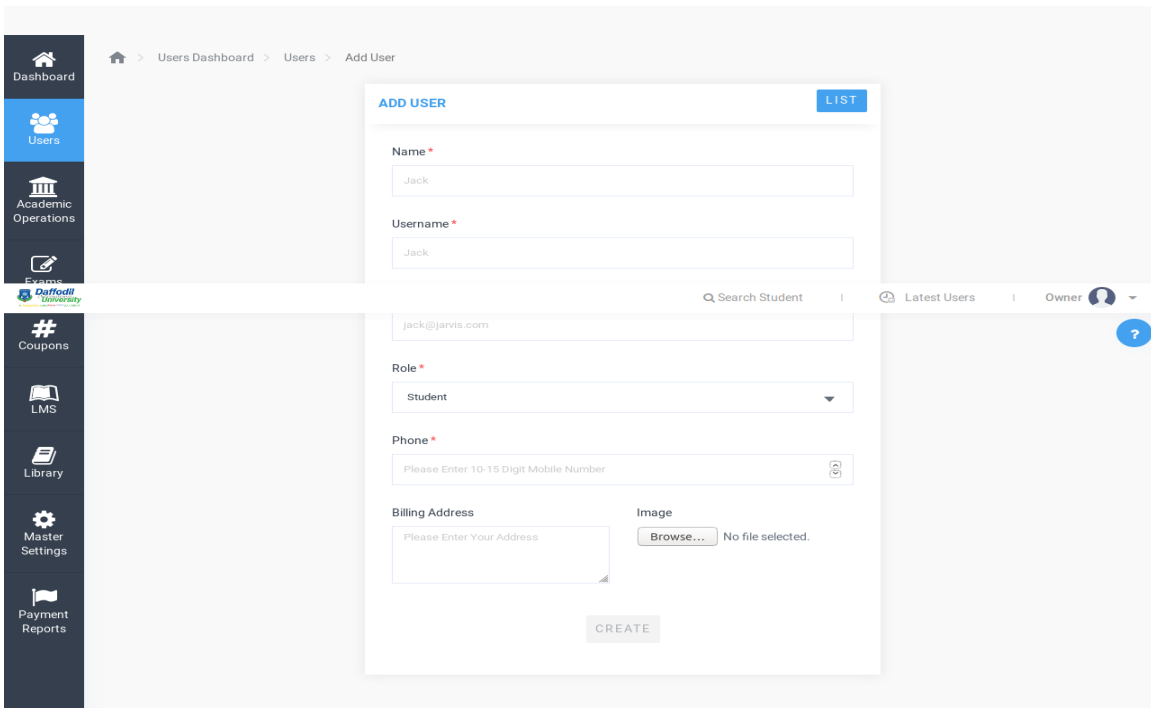


Figure 4.2.7: add user

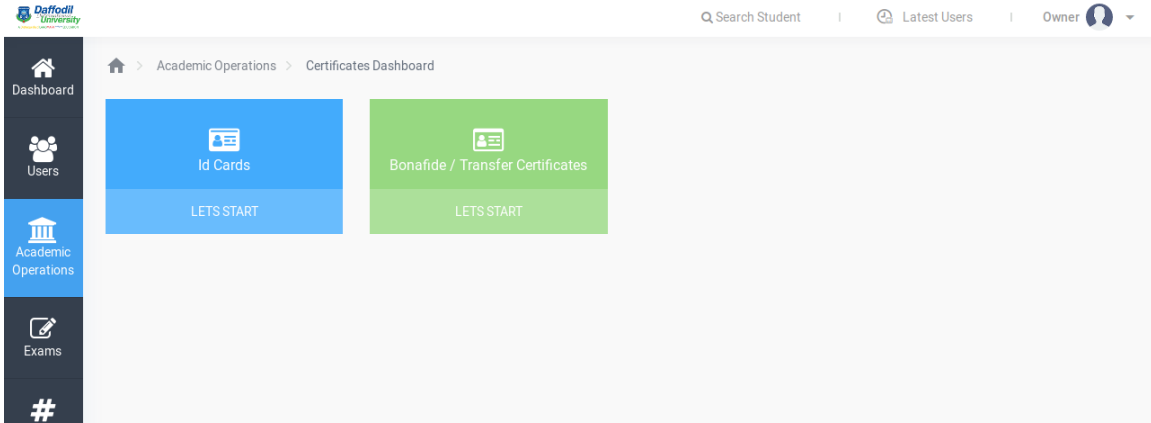


Figure 4.2.8: certificate and id card generation

here administration can generate certificate and id card for students.

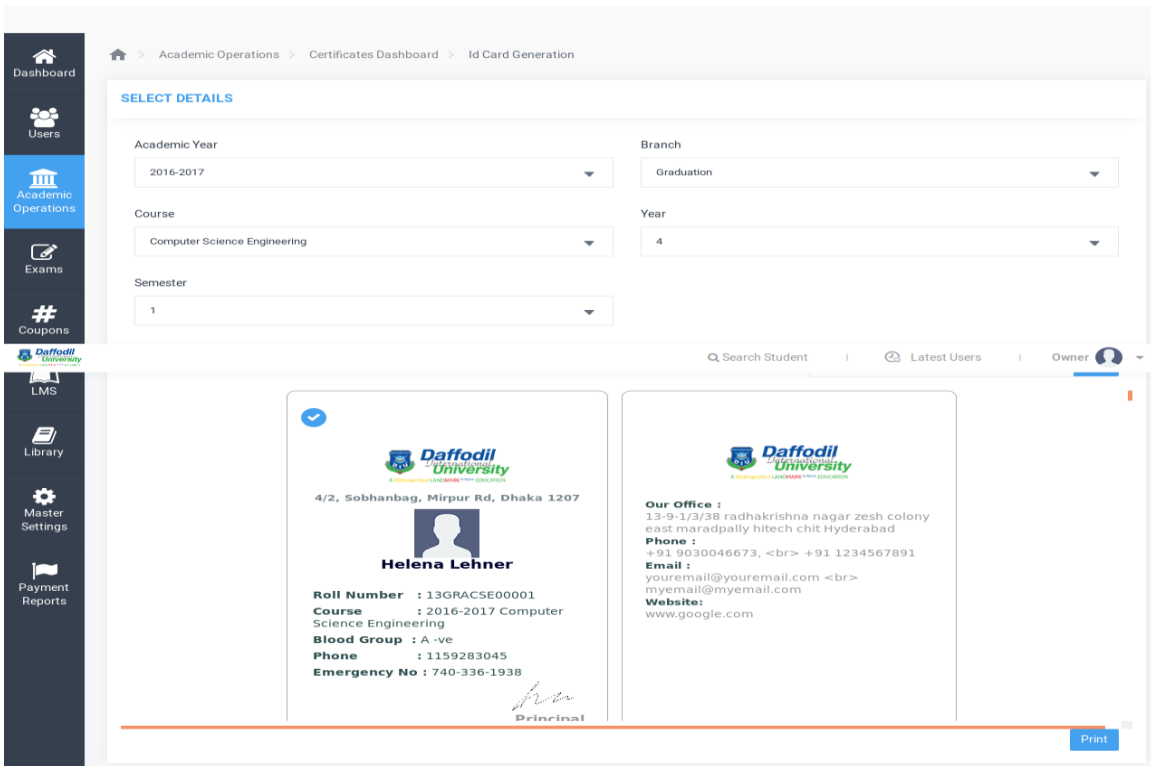


Figure 4.2.9: demo id card

Academic Operations > Student Promotions

SELECT DETAILS

Academic Year: 2016-2017
 Branch: Graduation
 Course: Computer Science Engineering
 Year: 4
 Semester: 1

Is Completed: No Yes

Image	Name	Roll No	Admission No	Action	Remarks	Action
	Helena Lehner	13GRACSE00001	ACA1892	Promoted		Course Completed
	Maximus Flatley	13GRACSE00002	ACA1893	Promoted		Course Completed
	Dr. Mustafa Schinner	13GRACSE00003	ACA1894	Promoted		Course Completed
	Alba Gleason	13GRACSE00004	ACA1895	Promoted		Course Completed
	Humberto Nikoleus	13GRACSE00005	ACA1896	Promoted		Course Completed
	Yakobus Prosser V	13GRACSE00006	ACA1897			

TRANSFER

Figure 4.2.10: transfer certificate generation

Academic Operations > Timetable

Timings Set
LETS START

Create Timetable
LETS START

Figure 4.2.11: academic operation

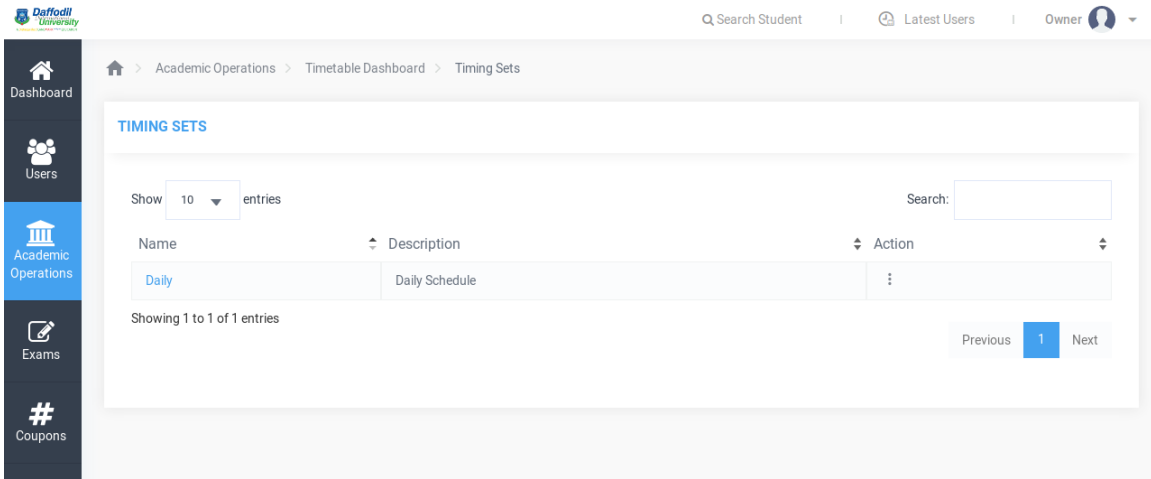


Figure 4.2.12: routine setting

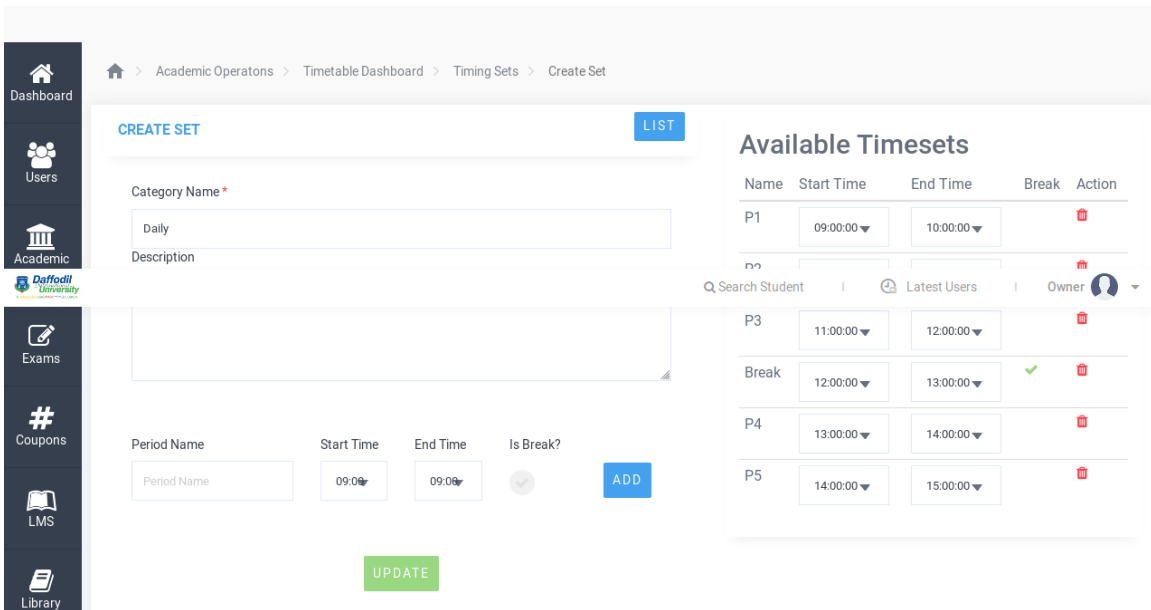


Figure 4.2.13: routine setting with drag and drop

Q Search Student | Latest Users | Owner

Academic Operations > Update Offline Exams Marks

UPDATE OFFLINE EXAMS MARKS IMPORT EXCEL

Show 10 entries Search:

Exam (ID)	Category	Subject	Maximum Marks	Pass Percentage	Start Date	End Date	Action
No data available in table							

Showing 0 to 0 of 0 entries Previous Next

Figure 4.2.14: mark update

Academic Operations > Attendance Report

SELECT DETAILS

Academic Year: 2016-2017 Branch: Graduation

Course: Computer Science Engineering Year: 4

Semester: 1

Sno	Name	Roll No	Total Class	Present	Absent	Leave	%
1	Helena Lehner	13GRACSE00001	25	19	3	3	76.00%
2	Maximus Flatley	13GRACSE00002	25	14	10	1	56.00%
3	Dr. Mustafa Schinner	13GRACSE00003	25	13	11	1	52.00%
4	Alba Gleason	13GRACSE00004	25	22	1	2	88.00%
5	Humberto Nikolaus	13GRACSE00005	25	20	3	2	80.00%
6	Kathleen Prosacco V	13GRACSE00006	25	14	10	1	56.00%
7	Mr. Mitchell Weimann	13GRACSE00007	25	14	10	1	56.00%
8	Jamey Padberg	13GRACSE00008	25	21	4	0	84.00%

Print

Figure 4.2.15: student progress details

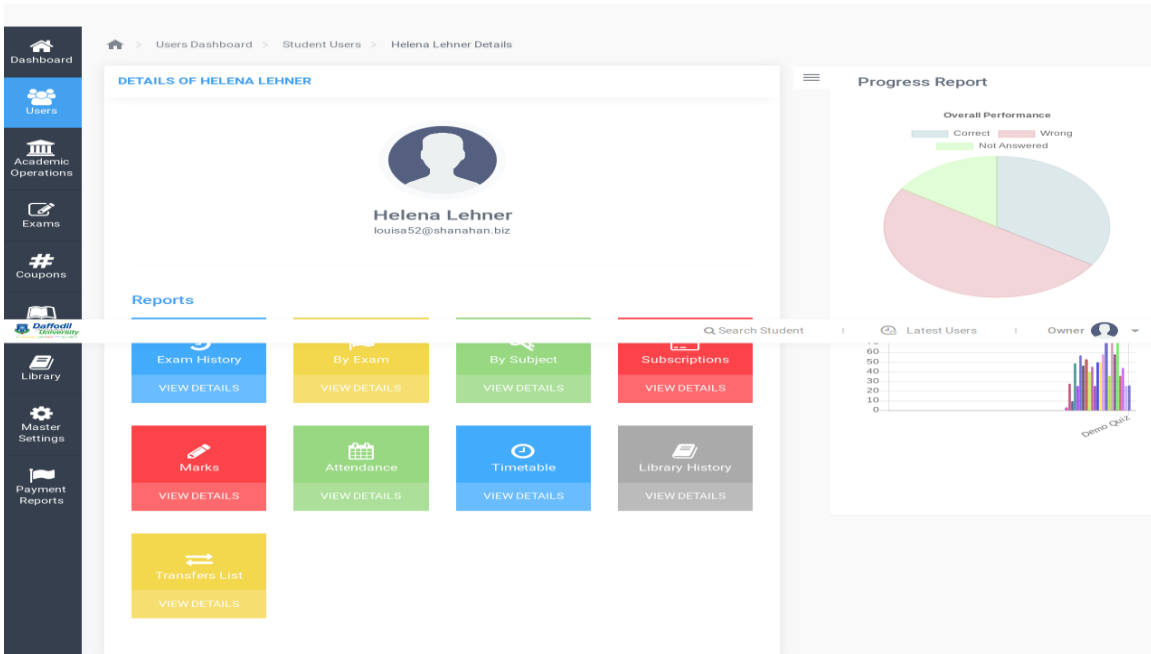


Figure 4.2.16: individual student progress details

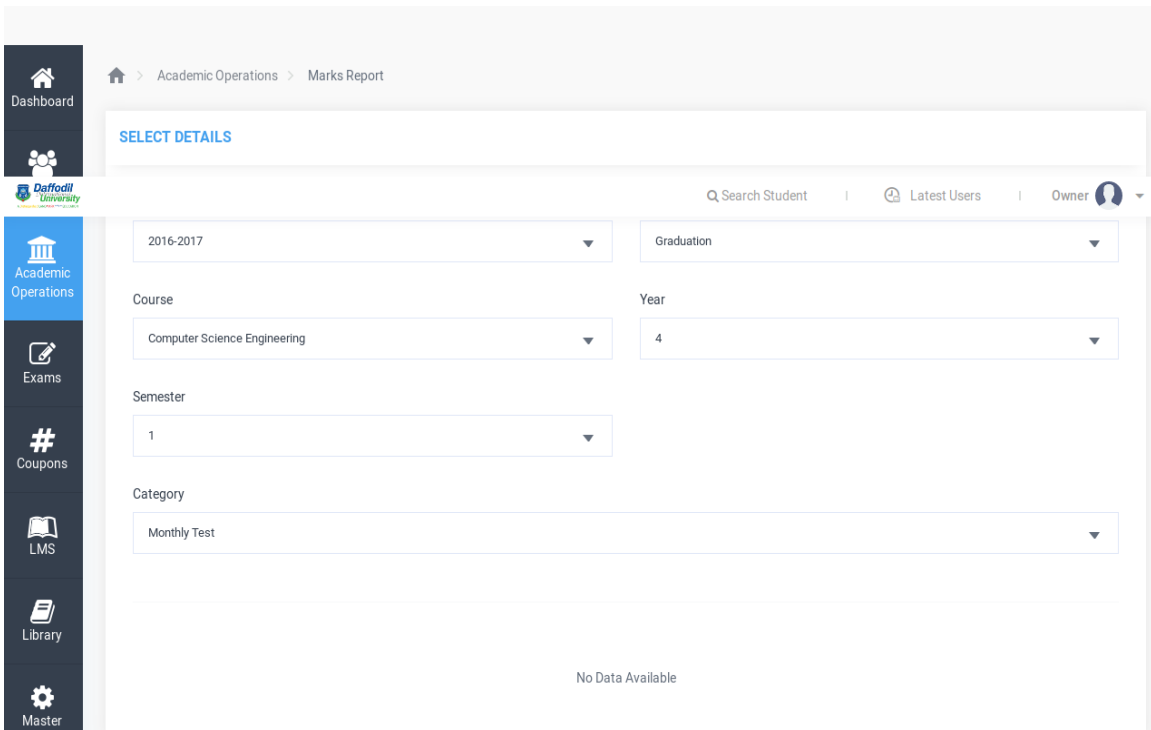


Figure 4.2.17: marks report generation

Dashboard > Academic Operations > Student List

SELECT DETAILS

Academic Year: 2016-2017 | Branch: Graduation | Course: Computer Science Engineering | Year: 4 | Semester: 1

Add Total Blank Columns: 1

2016-2017-Computer Science Engineering-4 year-1 semester Student List

Sno	Name	Roll No	Course
1	Helena Lehner	13GRACSE00001	Computer Science Engineering
2	Maximus Flatley	13GRACSE00002	Computer Science Engineering
3	Dr. Mustafa Schinner	13GRACSE00003	Computer Science Engineering
4	Alba Gleason	13GRACSE00004	Computer Science Engineering
5	Humberto Nikolaus	13GRACSE00005	Computer Science Engineering
6	Kathleen Prossacco V	13GRACSE00006	Computer Science Engineering
7	Mr. Mitchell Weimann	13GRACSE00007	Computer Science Engineering
8	Jamey Padberg	13GRACSE00008	Computer Science Engineering
9	Carolyn Emmerich	13GRACSE00009	Computer Science Engineering
10	Koby McCullough	13GRACSE00010	Computer Science Engineering
11	Catalina Anderson	13GRACSE00011	Computer Science Engineering

Figure 4.2.18: course wise student list

Academic Operations > Exams > Question Bank

VIEW ALL | VIEW ALL | VIEW ALL | VIEW ALL

Categories | Languages | Settings | Master Setup

Exam Series | Offline Exams Categories | Instructions

Latest Staff

Sammy Zi...	Myles Ols...	Perry Rolf...	Laura Kling
1 year before	1 year before	1 year before	1 year before

Ardith Tur...	Mr. Kiley ...	Joanne Je...	Katelyn Te...
1 year before	1 year before	1 year before	1 year before

Daron Toy	King Mohr	Ms. Delta ...	Darrion O'...
1 year before	1 year before	1 year before	1 year before

Recent Quiz Takers

- Sammy Ziemann MD (12.90 %) Quiz Name: Operating Systems Internal Exam One
- Miss Dariana Kassulke (11.11 %) Quiz Name: Material Science External Exam
- Braulio Brekke (21.43 %) Quiz Name: Database Management

Figure 4.2.19: exam operation

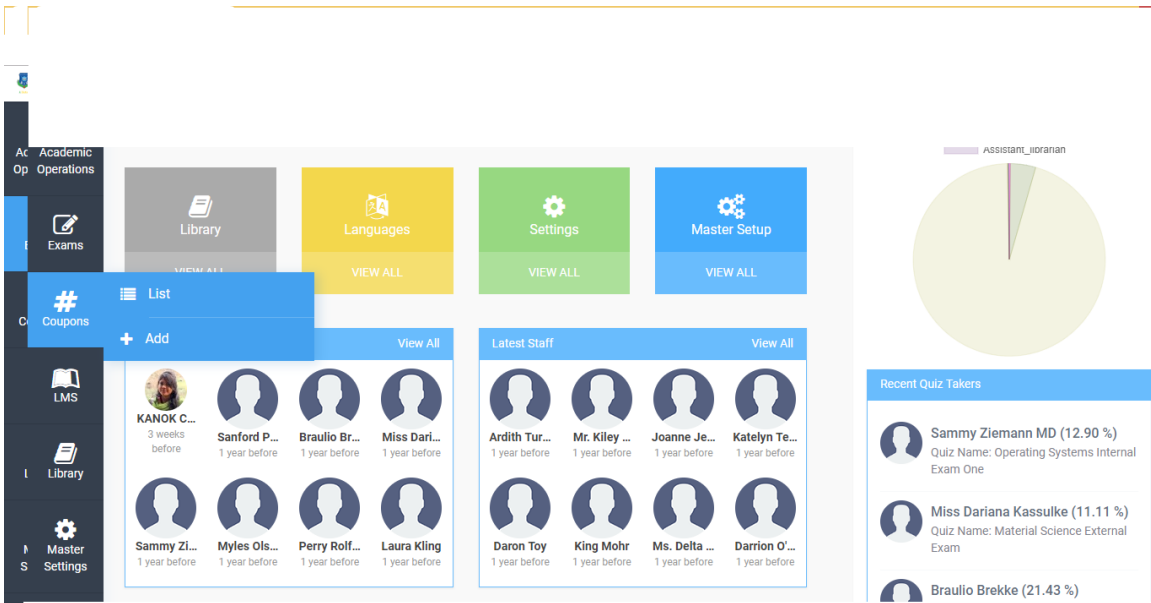


Figure 4.2.20: coupon operation

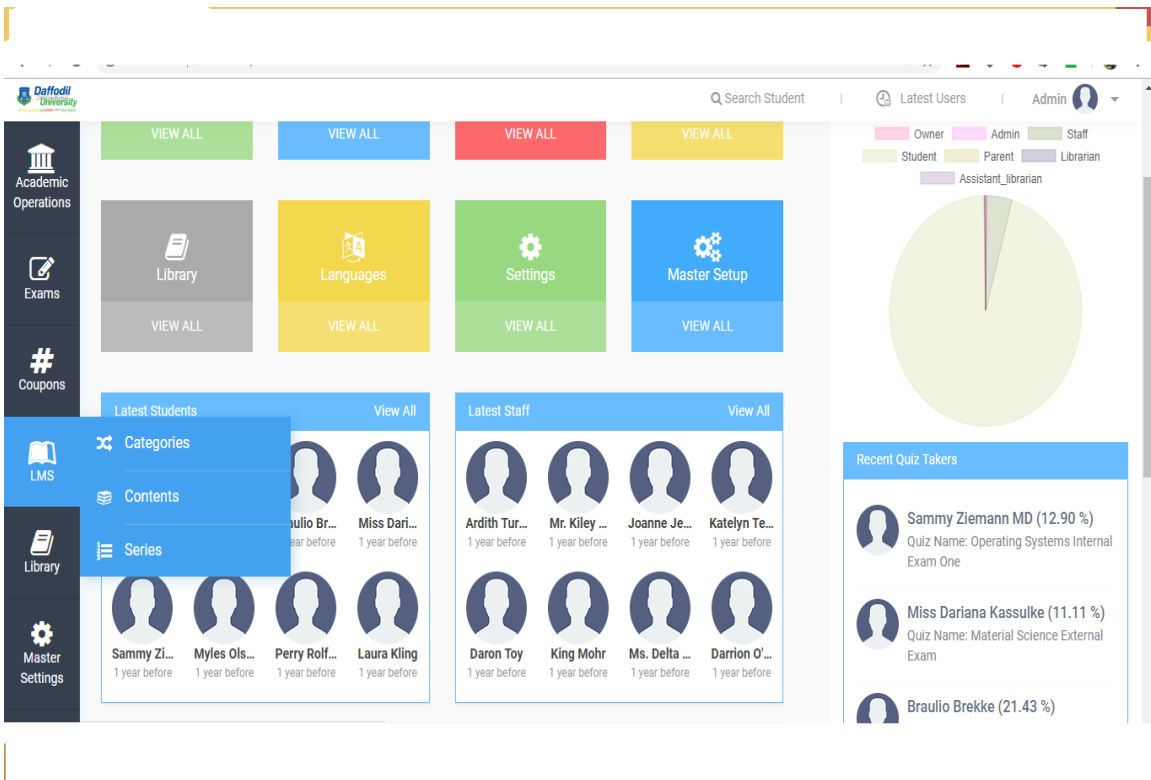


Figure 4.2.21: lms operation

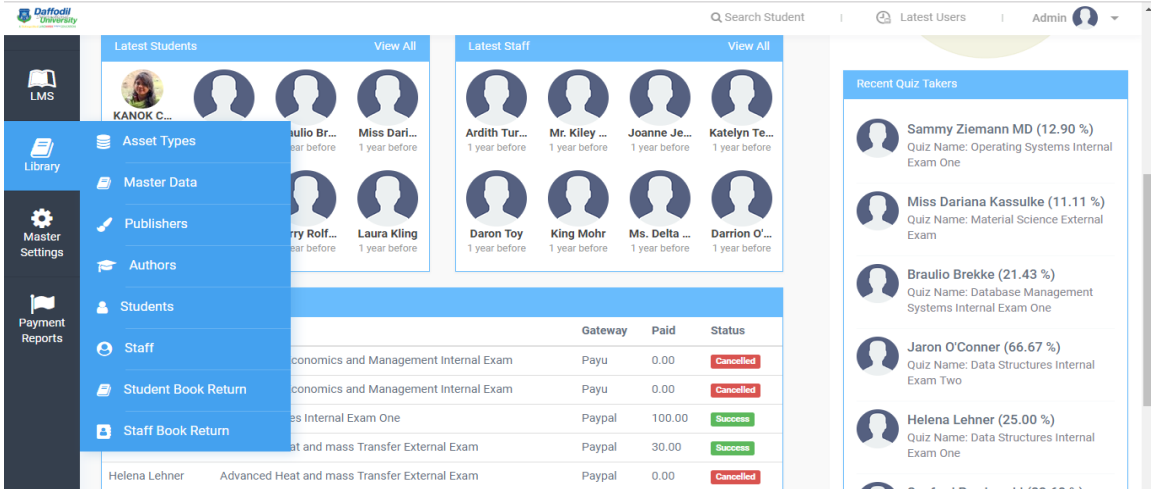


Figure 4.2.22: library operation

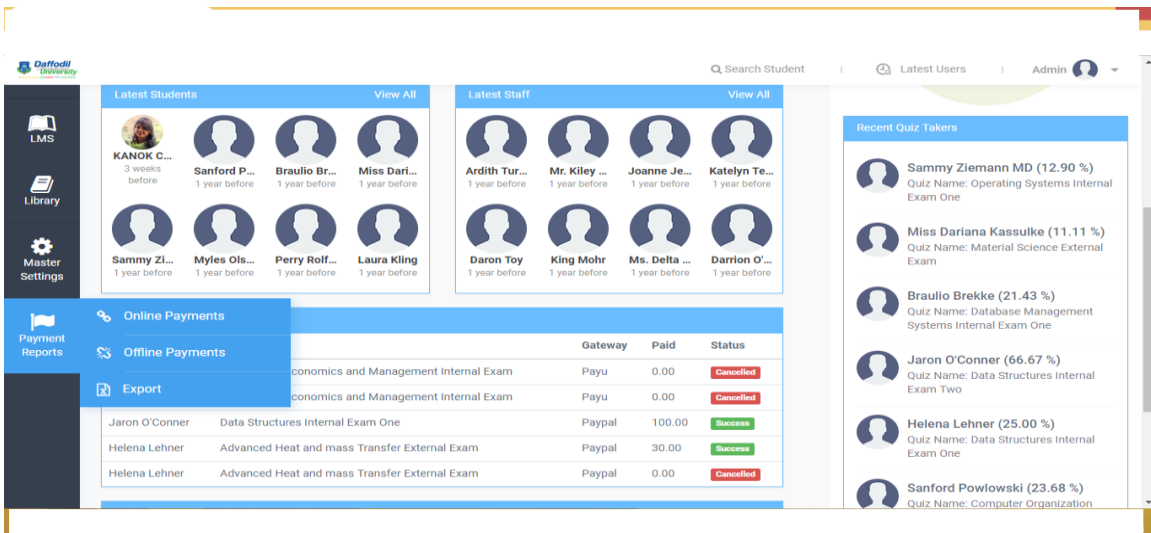


Figure 4.2.23: payment operation

For student:

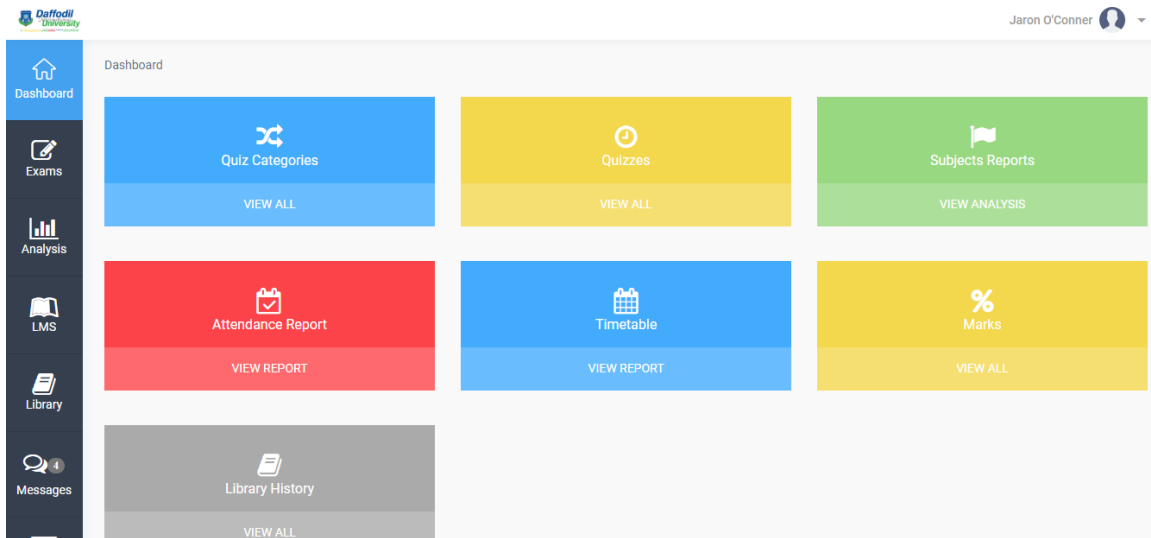


Figure 4.2.24: dashboard of student panel

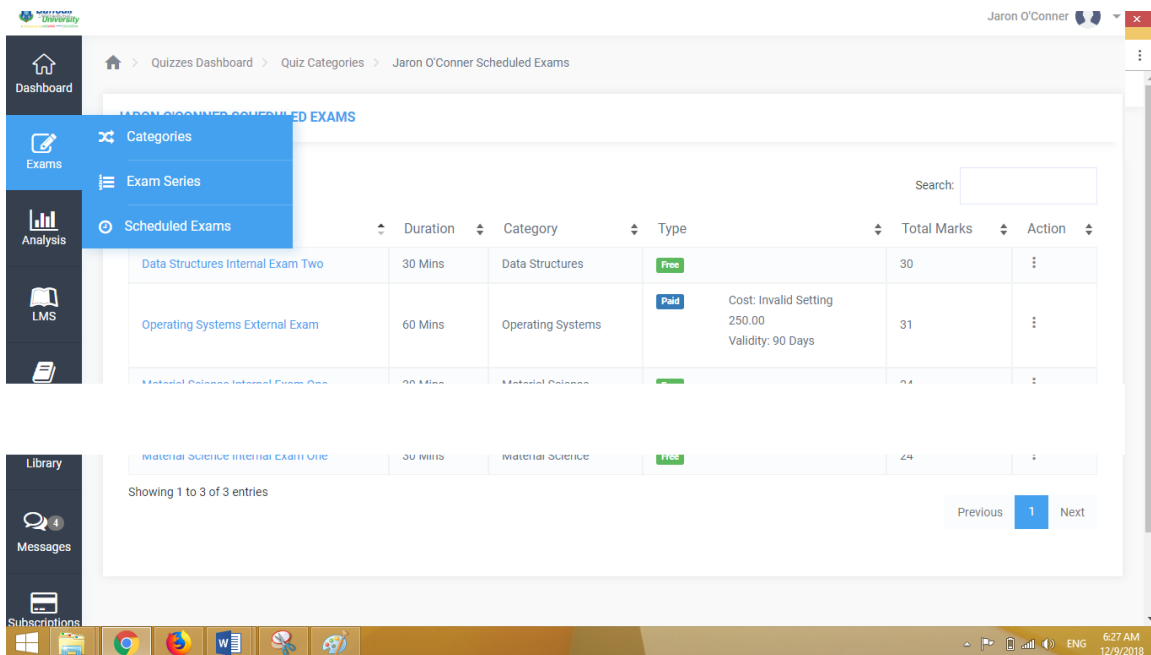


Figure 4.2.25: Exam system

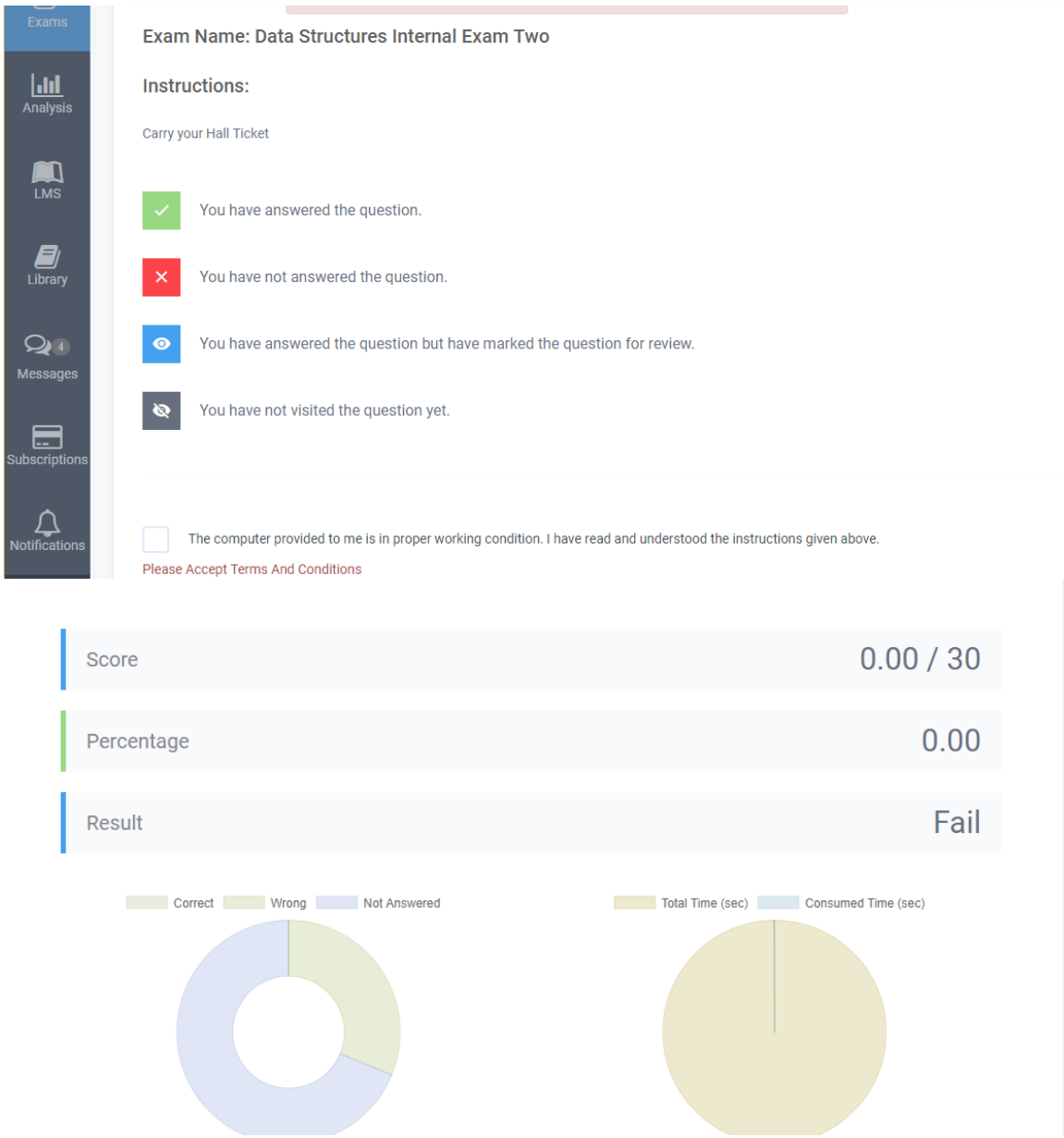


Figure 4.2.26: Online Exam

EXAM ANALYSIS BY ATTEMPTS OF JARON O'CONNOR

Exam Name	Type	Duration	Marks	Attempts
Exam One	Free	30 Mins	44	1
Exam	Free	60 Mins	36	1
Exam	Paid	60 Mins	31	1
Exam One	Free	30 Mins	24	1
Management External Exam	Free	60 Mins	39	1
Exam Two	Free	30 Mins	30	2

Showing 1 to 6 of 6 entries

Figure 4.2.27: All analysis

CHECKOUT

Item	Cost	Total
Angle Modulation Valid For 50 Days	Invalid Setting200.00	Invalid Setting200.00

Enter Coupon Code

Cart Subtotal	Invalid Setting200.00
Discount	Invalid Setting 0
Order Total	Invalid Setting 200

Billing Details

Name: Jaron O'Conner
 Email: brannon77@yahoo.com
 Phone: 0041826974

Billing Address

985 Bradtke Manor Loustad, AZ 37786-2592

Figure 4.2.28: Online payment

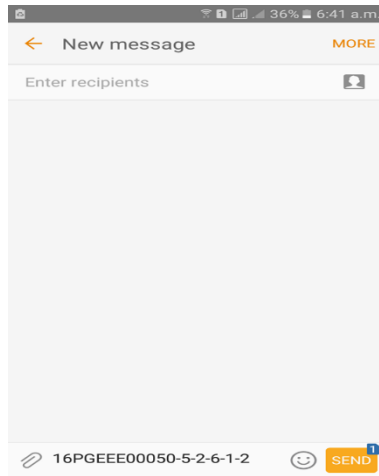


Figure 4.2.29: Registration with SMS

SMS REGISTRATION APPLY

Serial	Sms	Action
1	16PGEEE00050-5-2-6-1-2	Confirm Delete

Figure 4.2.30: SMS stored to the admin for confirmation

4.3 Interaction design and UX

It is the connecting between the application and the user of the application. There are many types of users in our application. Each can interact with one another. We have used many features to make this interaction better. For example, we have made an attractive dashboard for all type of users which shorty represents his/her need with attractive view.

4.4 Implementation requirements

- 1. Text editor**
- 2. Composer**
- 3. NPM**

CHAPTER 5

Implementation and Testing

5.1 Implementation of database

It is when we implement a database management system in our project. It helps to handle our project in a synchronized way.

5.1.1 Database management

Huge amount of database is used in our project. For student details, parent detail, staff details, librarian and assistant librarian details, exam details, payment details, student progress, student drop out possibilities.

5.1.2 Storing process of data

We have used MySQL as our main database.

Name	Image	Staff Id	Job Title	Branch	Email	Action
Ford Keeling		ACA2711	Asst. Prof	Graduation	emmerich.meagan@walsh.com	
Della Carter		ACA2692	Asst. Prof	Graduation	mortimer95@bechtelar.com	
Brandon Reynolds		ACA2709	Professor	Graduation	ggerhold@hotmail.com	
Abigail Thiel		ACA2693	Asst. Prof	Graduation	cara.lehner@harris.com	
Katelyn Terry		ACA2728	Asst. Prof	Post Graduation	gcrooks@hotmail.com	
Ardith Turner		ACA2731	Professor	Post Graduation	ljaskolski@yahoo.com	
Mr. Kiley White		ACA2730	Professor	Post Graduation	marlee14@schroeder.com	
Daron Toy		ACA2727	Asst. Prof	Post Graduation	fconn@hotmail.com	

Figure 5.1.2: Storing process of data

5.2 Implementation and interaction

Implementation is connecting front-end to back-end. And interaction is the connection between the user and the application. Our application is very user friendly. It is easy to use. For user betterment we have made the application fast. For this reason we have used angular js in the front-end.

5.3 Testing Implementation

Table 5.3 Implementing Test case and Result

Test case	Test Input	Actual Output	Result	Tested On
Running	Running in different browser	Successfully run	Passed	1/11/2018
Data show Without load (by angular js)	Viewed new data	Showed without load	Passed	1/11/2018
Registration with SMS	Registration with SMS by code	Code sent to the teacher	Passed	1/11/2018
Reset password	If password is forgotten the set it again with mail verification	Code sent to the mail	Passed	28/11/2018
Setting routine	Setting class routine with available teacher by drag and drop.	Routine was being made.	Passed	28/11/2018
Add user	Press add user button.	Admin can add any type of user with	Passed	28/11/2018

		information.		
Update information	Press update button.	Anyone can update his/her information by pressing update button	Passed	28/11/2018
Payment online	Pay the dues through PayPal	Students can pay their fees online using PayPal	Passed	28/11/2018

5.4 Test results and reports

Test result is important to know if the application is running successfully or not. Test can do this. We have tested our application in the table 5.3. It passed all the tests. So it is working well with user friendly environment.

CHAPTER 6

Conclusion and Future Scope

6.1 Discussion and conclusion

This is a web-based application which has been successfully implemented. We are very thankful to our honorable supervisor who helped a lot to finish the project successfully.

We have tested the application in different devices and browser. It worked perfectly.

This application will help a university management system a lot. We hope this application will serve people a lot.

6.2 Limitation

It has some limitation. We will try to overcome these limitations in near future.

Limitations are-

- ❖ We only develop the application only for browser.
- ❖ We have added only PayPal and Payu for payment.
- ❖ Conditions are set for fixed credit.
- ❖ The application needs more functionality.

6.3 Scope for future development

- ❖ Adding more feature.
- ❖ Making android app also.
- ❖ Adding more transaction way.
- ❖ Set condition for open credit also.

Appendices

Appendix A: Project Reflection

Making this application was really enjoyable to us. We have learnt many new things during its development. We want to more develop this application with our hard work.

Reference:

[1] "daffodilvarsity.edu.bd" Internet: available at <https://daffodilvarsity.edu.bd/> {24/11/2018}

[2] "vnsc.edu.bd" Internet: available at <http://www.vnsc.edu.bd/>{24/11/2018}

[3] "squarehospital.com" Internet: available at <http://www.squarehospital.com/>{24/11/2018}