

PAYMENT MANAGEMENT SYSTEM

BY

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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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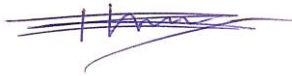
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APPROVAL

This Project titled “**Payment Management System**”, submitted by ***Saief Al Islam*** 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 ***2 June 2021***

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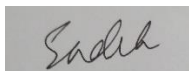
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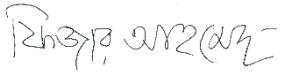
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DECLARATION

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ABSTRACT

This project computerizes the installment measures required during understudy enlistment at the Daffodil International University, Dhaka Campus. Installment measures incorporate School charges and lodging allotment. An information base was executed utilizing MySQL for legitimate record the executives and PHP was utilized as prearranging language for the framework advancement. The understudy makes a record with the ASPPS framework where he/she can set aside any measure of cash whenever at the assigned Payment System of ASPPS so that during enlistment, he/she just gets to his/her record and pays for his/her school expenses and convenience. This is a finished school the board framework too. Administrator can add Schools and Agents just as Students. This task shows that it is simpler for understudies to finish their enlistment consequently as opposed to going through some dreary manual cycles during enrollment.

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CHAPTER ONE

INTRODUCTION

1.1 Introduction

Enhancements in Information and Communication Technologies (ICTs) affect out and out areas in our general public, additionally in instructive framework. In schooling, the frameworks of ICTs in restricted structure e-learning is making the situation distinctive of learning and instructing measures. School the executives these days deal with and keep up on the web, and the records of establishments are being kept in information bases and mechanized framework that are open through on the web and web. Additionally, Registration, installment of institutional charges and a lot more are finished utilizing the on the web and web. On the planet Information Technology has gone up until now and broadly accessible that currently makes our life simpler and for us to see the significance of utilizing mechanized framework rather than manual framework.

Alluding to the matter of school staff expenses and lodging allotment due to the Automated School Payment Portal System (ASPPS) issue. Due to the enormous number of understudies that are included and the majority of them face this sort of issues, online installment framework is these days getting exceptionally famous in light of it making the entire interaction simpler for the Educational Institutions to get the expenses from the understudies. Instances of comparable robotized frameworks are being used in a few colleges and other Educational Institutions.

Lately, the fast improvement of innovation has presented to us another framework which supplant the old framework and make it simpler on Web based frameworks. These new and progressed frameworks additionally used to begin enquiry frameworks and have capacity to enter information, extraordinary reaction time and a give and take care of each issue ideal, at that point one is said to make some "Genuine Memories System". An ongoing framework is additionally a Web based framework and contains for the most part of four (4) fundamental segments:

- i. A information gathering framework will gather natural information.
- ii. An examination framework that changes the got data as needed by the application.
- iii. A control framework that reacts to the outer climate.
- iv. A observing framework that co-ordinates any remaining type of these segments so that constant reaction can be accomplished.

Since to these progressions, association presently no need of make it concentrated when data administrations can reach all over. Nonetheless, Web based frameworks have helped in each field of individuals everyday life today. Henceforth this undertaking work gives and makes an Automated School Payment Portal System (ASPPS) to the Daffodil International University, Dhaka Campus through the advancement of a Web based framework that will thus improve the proficiency and adequacy of the college.

1.2 Explanation of the Problem

In maximum Bangladeshi academy of better gaining knowledge of particularly the Universities and other Educational Institutions, college students' enrolment to those better establishments is constantly at the growth, and every year every student has to go to their

Institution for a consultation and the pupil has to give fee for the consultation and educational expenses. Yet, the issue is the quantity of understudies getting exceptionally populated throughout the long term makes the length of enrollment awful and charge of school expenses and inn dwelling an absolutely monotonous exercise. The current contraption of expense of school expenses and lodging assignment on the Daffodil International University, In Dhaka Campus every one of the understudies needs to remain on a line at that point top off the structure to pay the monetary foundation for charge. On the off chance that the understudy wants to create another exchange ID after which return it to the monetary organization. This technique is incurring a great deal of difficulties because of the reality numerous understudies will should arrange in unlimited lines in banks wherein such a ton of startling events would conceivably occur. A pupil would possibly lose his/her money; get worn-out because of strain and such a lot of different occasions. There are many thing can be happened during the manual process of giving payment to the Educational Institutions. Pick pocket, thief can take their money away. Most college students for the duration of registration are usually at domestic and could should come lower back to high school for registration due to the fact maximum banks out of doors Dhaka does now no longer offer this system.

1.3 Motivation

The current framework or method of installment outcomes to fear path to the components and circumstances experienced all through enrollment. Each new and returning understudy has were offered to hint in on the start of each meeting. All most college students are throughout a country of misunderstanding throughout registration either due to the fact they may be doing now no longer presently have the coins to pay for his or her faculty costs or will should come down to high school to pay throughout procedure and not using a guaranteed lodging or send the cash to a friend who's in faculty. Also throughout COVID-19 issue. Gathering is exactly prohibited. So this device may be a totally important choice to resolve charge device of a faculty. Students in addition to instructors and agent's time may be store which will pay or receive any form of charge which belongs to highschool. In light of those perceptions, a Web essentially based absolutely gadget for Payment which will allow undergrads vanquish those inconveniences all through enlistment is planned and executed. The gadget will allow an understudy to open a record at an assigned monetary foundation and hold his/her personnel costs with inside the record at whatever point and quickly. Because of the common situation of the nation, mother and father additionally can hold their kids' finished staff expenses of their record. Consequently, the gadget allows in you to hold your staff costs gradually or without a moment's delay. The improvement of this Web basically based absolutely gadget will put off the major inconveniences of the current framework.

1.4 Aim Of This Project

The aim of this task is to foster an Automatic School Portal Payment System (ASPPS) that assistance understudies safely and serenely pay their school expenses and convenience

charges during enlistment and tests. It will likewise assist the Schools with getting their sum without any problem.

1.5 Objectives

- i. Create a Web based framework to have the option to cure the difficulties of the current framework being utilized for staff getting expenses.
- ii. Develop a framework that will help an understudy save his/her school charges in a record before the time of enrollment.
- iii. Allow understudies to pay their staff charges and test expenses anyplace and whenever all through enlistment.
- iv. Ease and make the enlistment interaction of understudies quicker in each meeting.
- v. Test and ensure the framework is substantial of model.
- vi. Set up Agents for a particular school to maintain the payment process.
- vii. Make this system easier so that students can pay their bills and fees easily.

1.6 Scope

The scope is to foster an Automated School Payment Portal System (ASPPS) for the Daffodil International University, Dhaka Campus. The framework will oblige just the manager, specialists and understudies into one coordinated Database framework. This task is additionally perused for any sort of Educational Institution.

1.7 **Research Methodology**

The proposed research method that would be adopted is as follows;

- i. ***Requirement Assessment:*** An exhaustive appraisal of the current framework will be supplanted by the enhanced one and the necessities of the new framework will be set up by taking meeting of certain understudies and Teachers of the school. Additionally, a few Agents should be incorporated.
- ii. ***Application Program:*** The design work flow, use case diagram and process will be transform into code and repaired.
- iii. ***Testing and Development:*** When the venture will be finished, application will be tried and sent on far off web have, and will be available to use for the clients.

1.8 Significance

Writing says that, practically in each business, the straightforward interaction of gather the sum from individuals who take administrations is intricate and each association is searching for an answer for make this cycle simpler and advantageous for clients to pay, so they have to bring to the table such countless ways simple methods of installment. In any case, this undertaking will deliver an elective stage that empowers understudies and their backers safely offer installment to the college/school expenses online from any place expected to pay. This will diminish the length lines, and the school will likewise get the expenses effectively and no hustle for installments. Guardians of understudies can likewise save their young men/young ladies school charges before the time of enrollment and as such will make it simpler to cook for their wards.

1.9 Organization of the Project

We can divide this whole project in 5 different chapters. Section One will be early on part which will be incorporated as the inspiration, scope, research strategy, points and destinations of the work, Chapter Two is the writing survey, Chapter Three discussions about the framework investigation and plan of the work, Chapter Four is the framework improvement, execution and testing lastly Chapter Five involves the proposal and end.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

As the number of users on the World Wide Web is increasing day by day, its use in every areas is also growing rapidly. One among the foremost powerful uses of web based applications is that they're accustomed simplify work which is often done manually. This part presents a writing survey on; data frameworks, electronic installment frameworks, card installment handling, expenses installment frameworks in Bangladeshi Universities and Schools of the present online frameworks with the expected framework.

2.2 Information Systems

From Wikipedia, Information framework (IF) is the investigation of corresponding organizations of equipment and programming that individuals and associations use to gather, channels, and measure, make, and disseminate information. The investigation spans business and software engineering utilizing the hypothetical establishments of data and calculation to consider different plans of action and related algorithmic cycles inside a software engineering discipline. An Information framework alludes to data innovation and individuals' exercises that help activities, the executives and dynamic. On the other hand, a data framework is the association between individuals, cycles, information and innovation. In this sense, the term is utilized to allude not exclusively to the data and correspondence innovation (ICT) that an association utilizes, yet additionally to the manner by which individuals communicate with this innovation on the side of business measures. Data framework is a coordinated arrangement of parts for gathering, putting away, and handling information and for conveying data, information and advanced items. Business firms and different associations depend on data frameworks to do and deal with their tasks, collaborate with their clients and providers, and furthermore contend in the work market.

2.3 Electronic Payment Systems

Electronic installment framework is a term to depict any trade of assets started through an electronic correspondence channel. An internet business electronic installment is a monetary trade that happens in an online climate. Electronic installment frameworks are called to work with the main activity after the client's choice to pay for an item or administrations. A few drives have been embraced to make and foster electronic installment frameworks and fruitful ones incorporate different kinds of keen cards, electronic money, and electronic cheddar

components. Electronic installment frameworks can be classified into four gatherings: online MasterCard installment framework, online electronic money framework, electronic check framework and keen cards-based electronic installment frameworks. With the end goal of the current examination, the analyst centers around the Electronic Fund Transfer Method which can be ordered under online electronic money framework.

2.4 **Card payment processing**

There are six gatherings engaged with a customary Visa preparing cycle; client, card giving bank, vendor, dealer's bank, acquirer, and a Visa processor. The card giving bank issues Master cards to clients and keeps up their records and the vendor opens a record with a bank to get installments. To acknowledge Master cards, the dealer needs to enlist with an acquirer, a bank or monetary foundation that sets up a record for the trader and gives a terminal to handle Master cards. The processor is a huge server farm kept up by the Visa organization, and it goes about as a clearing house for all charge card exchanges.

2.4.1 *Credit Cards*

A Visa is a little plastic card give by banks to clients as a strategy for installment for online just as disconnected exchange. The specialist organization or the business bank concedes a credit extension to the card client, and the card client is needed to pay at any rate a base sum for any exchange made each month or year. With the credit approach, charges are posted against the client's record and the client is charged for this sum later or therefore pays the equilibrium of the record to the installment administration. Master-cards are the most generally utilized strategy for electronic installment and are broadly acknowledged by purchasers and traders all through the world, particularly in retail advertises.

2.4.2 *Debit Cards*

Perhaps the most generally utilized frameworks for electronic installments is the charge card; Debit cards consolidate the help of Automatic Teller Machines (ATM) cards and checks. At the point when clients pay with a charge card, the cash is consequently deducted from their

checking financial balance. Conversely with the Visas, the went through cash comes from the financial balance straightforwardly. Numerous banks issue a joined ATM/check card that appears as though a Visa and can be utilized in where Visas are acknowledged. For this situation, when clients pay with a charge card, the installment will in any case be prepared as a charge exchange. Both charge and Visas are related with benefit of comfort, speed, adaptability, straightforwardness, usability, openness and accessibility.

2.5 Charges Payment Systems In Bangladesh

Banks, ATM stands are normally topped off during enrollment with individuals who need to either pull out or pay their school charges. In the Bangladeshi setting, e-installment is the way toward affecting installments starting with one end then onto the next end thanks to the PC without manual intercession past contributing the installment information, it is the capacity to pay the providers, sellers and staff pay rates electronically at the hint of a PC button. The Federal Government of Bangladesh through its depository roundabout ref. No TRY/A8 and B8 of 22nd October, 2008 coordinated that installments from all assets of the Federal Government of Bangladesh be made electronically as from first January, 2009 to kill the fairly unsatisfactory deferral in the installment of government workers for hire who have been ensured to have either somewhat or completely finished agreements granted to them and are expected for installment; limit association among workers for hire and government authorities who have tasks to carry out in the installment of project workers; check debasement since exchange of government can without much of a stretch be followed starting with one source then onto the next, present and organize monetary fidelity in the exercises of government.

2.6 Existing System

BRAC University has a productive and compelling Financial Information System (FINIS) that records, screens, and reports about understudy charges installment exchanges and different accounts in the college. Charges installments by understudies are put aside through cash installments, electronic assets move and bank drafts to the college's records in explicit bank offices and later reflected in FINIS which coordinates with the Academic Records Information System (ARIS) that gives data on understudies. These techniques for paying charges have not been proficient enough particularly during times of enlistment. The interaction of charges installment in such periods is portrayed by long lines, a lot holding up by understudies and clog at banks where installments are made. This interaction has consistently brought about understudies being focused as they need to arrange in ceaseless lines at different banks. It has likewise come about to a lot costs and a great deal of time utilized in moving and pulling out cash at whatever point patrons of understudies bring in cash moves to understudies to empower pay college charges at explicit bank offices.

2.6.1 *Problems of the Existing System*

Internet business Payment Systems, despite its various advantages accompany its own difficulties even in the created world. This segment takes a gander at some these difficulties with explicit spotlight on Bangladesh;

- i Behavioral requirements: The way that is cash-based, individuals are familiar with utilizing cash for a large portion of their exchanges.
- ii Bank's perspectives: Some banks in Bangladesh are extremely traditionalist; they utilize not many inventive items and advertising strategies.

- iii Lack of certainty: the security issue is one of the significant difficulties in the advancement of-credit only strategy in Bangladesh.
- iv Low level of web infiltration and inadequately created telecom blocks smooth turn of events and improvement in e-installments and web-based business.
- v Lack of appropriate legitimate and administrative system for e-installments: Bangladesh's present laws don't oblige electronic agreements and marks.
- vi Inadequate banking framework
- vii Political and monetary dangers in adjoining nations: Political insecurities unavoidably upset smooth activities of business and free progression of labor and products.
- viii High paces of lack of education: low proficiency rate is a genuine obstacle for reception of e-installments as it blocks the openness of banking administrations. For residents to completely appreciate the advantages of e-installments, they ought to realize how to peruse and compose as well as have fundamental ICT education.
- ix High cost of Internet: The expense of Internet access comparative with per capita pay is a basic factor. Contrasted with created nations, there are greater expenses of passage into the e-installments and web based business market. These incorporate high beginning up speculations costs, significant expenses of PCs and media transmission and authorizing necessities.
- x Frequent power interference: Lack of dependable force supply is a critical test for easily running e-installments and e-banking.
- xi Lack of adequate IT expertise to help banks resolve customer issues.

2.7 Intended System

Applications will give an extra channel to charges installment to the college on the web and will incorporate with the all around existing frameworks, FINIS and ARIS. Applications was proposed to take care of the issues related with the current charges installment techniques in the college. Applications is an elective stage that empowers understudies and their backers to safely pay college charges online from any place they are. The framework assists with lessening the understudies who need to arrange in lines at different banks holding on to pay their school expenses. It will likewise give a vehicle of installment which is simple not exclusively to the understudies however to the college the board on the loose.

2.8 Web-Based Application

Wikipedia characterizes an electronic application as a product bundle that can be gotten to through the internet browser over an organization which can be neighborhood or with the assistance of web. The product and information base live on a focal worker as opposed to being introduced on the work area framework and is gotten to over an organization. Online applications are a definitive method to exploit the present innovation in improving your associations usefulness and effectiveness. Electronic application offers you a chance to get to your business data and control from anyplace on the planet whenever. It additionally works with you to set aside time and cash and improve the intuitiveness with your clients and accomplices. It permits the organization staff of any association to work from any area and deals staff to get to data distantly all day, every day. With a PC associated with the Internet, an internet browser and the correct client name and secret phrase you can get to the frameworks from any area. Online applications are not hard to use and can be executed without interrupting your present work measure. The electronic programming empowers you to interface with the application and information in a liquid and exceptionally responsive way.

2.9 Database

A database is a coordinated assortment of information for at least one purposes, typically in computerized structure. The information are regularly coordinated to demonstrate important parts of the real world (for instance, the accessibility of rooms in lodgings), such that backings measures requiring this data (for instance, discovering an inn with opening). The expression "information base" alludes both to the manner in which its clients see it, and to the coherent and actual appearance of its information, content, in documents, PC memory, and PC information stockpiling. The data set is the drawn-out memory of your information base application.

2.10 PHP

PHP is a worker side prearranging language planned explicitly for Web. Inside a HTML page, you can insert PHP code that will be executed each time the page is visited. Your PHP code is deciphered at the web worker and produces HTML or other yield that the guest will see. PHP was considered in 1994 and was initially crafted by one man, Rasmus Lerdorf. It was received by other capable individuals and has gone through four significant revamps to present to us the board, develop produce we see today. As of November 2007, it was introduced on in excess of 21 million spaces around the world, and this number is developing quickly. You can see the current number at <http://php.net/usage.php>. PHP is an Open Source project, which implies you approach the source code and can utilize, modify, and rearrange it without charge. PHP initially represented Personal Home Page however was changed in accordance with GNU recursive naming show (GNU = Gnu's Not Unix) and now represents PHP Hypertext Preprocessor. The current significant rendition of PHP is 5. This variant saw a total change of the subordinate Zend motor and some significant enhancements to the language. The landing

page for PHP is accessible at <http://www.php.net>. The landing page for Zend Technology is <http://www.zend.com>.

2.11 MySQL Database

The center of a web data set application is the data set, which is the drawn out memory that stores data for the application. A data set is an electronic file organizer that stores data in a coordinated way so you can discover it when you need it. All things considered, putting away data is trivial on the off chance that you can't discover it. An information base can be little, with a straightforward design for instance, a data set containing the titles and writers' names of the multitude of books that you own. Or on the other hand a data set can be gigantic, with a very perplexing construction, for example, the data set that Amazon.com should need to hold all its data.

MySQL is a quick, simple to-utilize RDBMS utilized for information bases on many Web destinations. Speed was the designers' primary concentration all along. In light of a legitimate concern for speed, they settled on the choice to offer less highlights than their significant rivals (for example, Oracle and Sybase). Be that as it may, despite the fact that MySQL is less full highlighted than its business rivals, it has every one of the highlights required by most of information base designers. It's simpler to introduce and use than its business rivals, and the distinction in cost is firmly in support of MySQL.

CHAPTER THREE

SYSTEM DESIGN

3.1 System Design

The APPS (Automatic Payment Portal System) framework configuration characterizes the engineering, parts/subsystems, modules, interfaces and information expected of the framework to fulfill indicated prerequisites. In framework plan the accompanying instruments and strategies were utilized; measure engineering plan, information demonstrating and data set plan.

3.2 System Description

The APPS Web Application is an entrance framework that empowers understudies of the Daffodil International University, Dhaka Campus store cash into their records made with the framework and empowers them to naturally pay their school expenses and lodging convenience anyplace and whenever during enrollment. To accomplish this usefulness, HTML and CSS have being utilized to create and improve the interface, JavaScript is utilized to approve a portion of the sources of info and furthermore approve a portion of the elements of the framework. PHP has additionally being utilized to speak with the information base on sharing and putting away information.

3.2.1 Data Flow

A Data Flow Diagram is the succession of way information takes at it is created on the framework. It shows how information is handled if such information is substantial and furthermore indicates what happens when such information is invalid.

A diagrammatic representation of the flow of data in this web application is shown

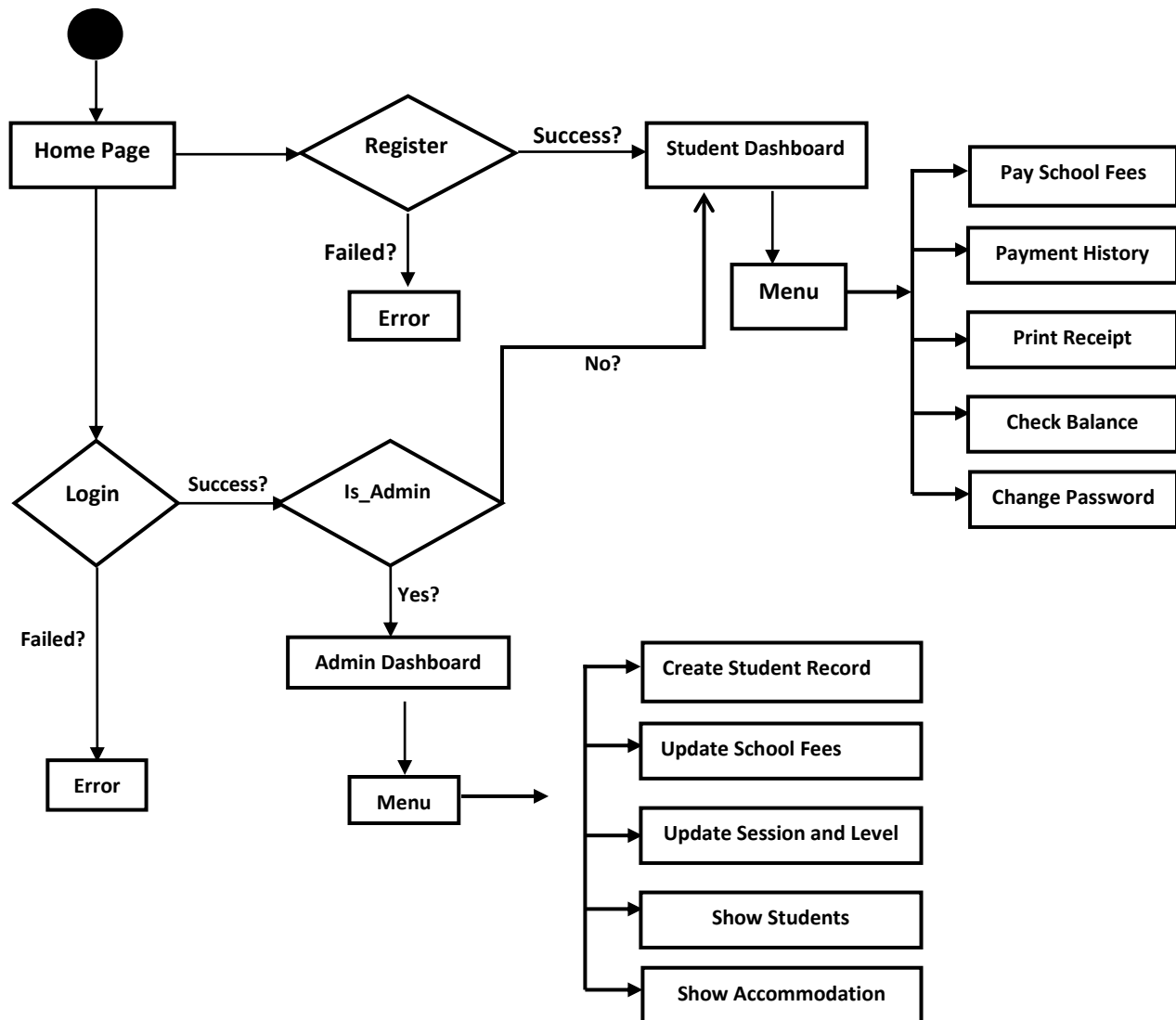


Figure 1 Data Flow Diagram for APSS

3.2.2 System Architecture

Applications is an electronic application to be facilitated on a web worker that imparts to a data set worker. The client on a web interface makes a web demand which is gotten by the web worker. The web worker measures the solicitation and interfaces with the data set worker utilizing SQL installed in PHP scripts. The reaction is a website page information sent on the web interface for the client.

The APPS framework comprises of three unique parts which are the Student Interface, Administrator Interface and the Bank Interface. The Student Interface gives the usefulness which empowers an understudy pay his/her school charges, see his/her installment subtleties, check balance, get inn convenience and change secret phrase. Furthermore, the Administrator interface permits the head to make another understudy, update understudy school charges, update meeting and level and furthermore see understudies and convenience. Ultimately, the Bank interface permits a specialist to enlist an understudy, affirm understudy store at whatever point an understudy stores into his/her record.

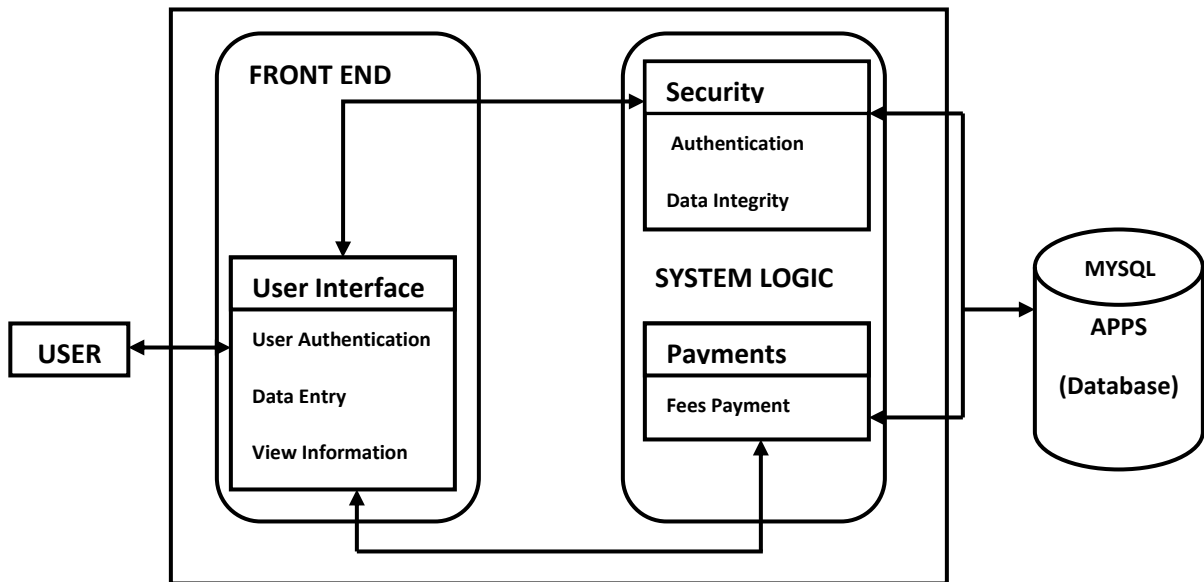


Figure 2 Basic Architecture for APPS

3.2.3 Input Specification

- i. This is an interface between the client and the framework that permit the client to enter information. Information input is for the most part done through the standard terminal console or with the mouse if there should be an occurrence of combo boxes, alternative records (or order catches). At this stage, distinctive screen (window or structures) are

intended to control information passage system. The information factors required for this work depend on three classifications of clients:

- ii. **Student** -: Login form that requires username (matric number) and password, after logging in, there are the pay school fees form that allows a student pay his/her school fees, an accommodation form that allows the student get hostel accommodation and finally a change password form that allows modification of existing passwords etc.
- iii. **Administrator**: Login structure that requires username and secret word, subsequent to signing in, there is a structure that permits the chairman makes new understudies, a structure to refresh meeting and another structure to refresh level and school expenses etc.
- iv. **Agent**: Login structure that additionally requires username and secret phrase. At the point when the specialist signs in, he/she can see an understudy profile, store an amount of cash into an understudies' record, print receipt for the understudy installment and view the understudies store history.

3.2.4 *Utilitarian Requirements*

- i. The framework will acknowledge legitimate contribution of enrolled understudies' installment subtleties from clients aiming to pay expenses on the web.
- ii. The framework will handle expenses installment exchanges so understudy charges accounts are credited with the predefined sum in every exchange.
- iii. The framework will deliver a receipt as a proof of installment for each exchange made.
- iv. The framework will create a posting of exchange data to understudies.
- v. The framework will give criticism to the understudy depicting the situation with the exchange.
- vi. The framework will have the option to produce installment reports to understudies.

3.2.5 *Non-Utilitarian Requirements*

- i. The framework ought to be not difficult to keep up.
- ii. The framework ought to be viable with various stages.
- iii. The framework ought to be quick as clients consistently need speed.
- iv. The framework ought to consistently be accessible online all occasions.
- v. The framework ought to be secure.
- vi. The framework ought to be available to online clients.
- vii. The framework ought to be not difficult to learn by both modern and amateur clients.
- viii. The framework ought to give simple, traversable and easy to use interfaces.
- ix. The framework ought to have a standard graphical UI that considers the on-line information passage, altering, and erasing of information no sweat.

3.3 **Database Design**

One significant thought of the work is to decide a reasonable document construction and association to look after uprightness, diminish repetition, and guarantee simple recovery of information from the application. This stage indicates every one of the documents utilized for the framework and their designs. The information base is planned utilizing MySQL. The Automated School Payment Portal System (ASPPS) planned explicitly for the contextual investigation Daffodil International University, Dhaka Campus is made of information base articles like elements (tables), schedules, credits (fields), sees (virtual tables) and so forth The table names, field names, information type, character length, credits, invalid, default esteems, additional activity and different depictions for all tables utilized are likewise determined.

3.3.1 *Database Schema Diagram*

Below is a diagram showing an entity relationship diagram for the Automatic Payment Portal System.

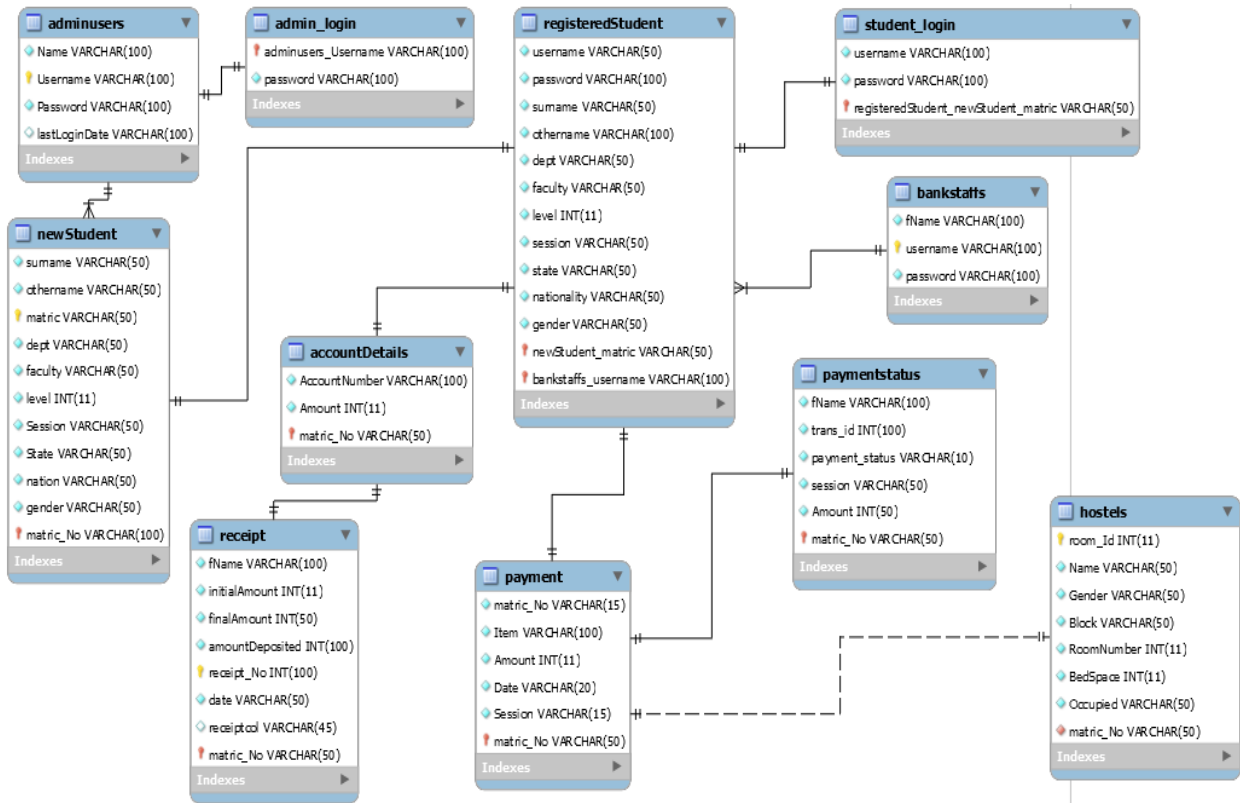


Figure 3 APPS Database Schema Diagram

- i. The composition in figure 3.3 contains different elements (tables), for example,
- ii. **new_Student:** This table keeps record of the relative multitude of subtleties of students created by the administrator. It shows the students of the university that have being created by the administrator.
- iii. **registered_Student:** This table keeps record of students that have registered to use the APPS system.
- iv. **account_Details:** This table keeps record of a student's account details which includes the student's account number, student matric number and the amount of money in the student's account.

- v. **receipt:** This table keeps track of the students' receipt for every deposit made into his/her account. It includes the date of payment, receipt number, amount deposited, the name of who made the deposit etc.
- vi. **payment:** This table keeps track of what a student has paid for and the amount such item costs. It also includes the date of payment, who made the payment and some other details.
- vii. **payment_Status:** This table keeps record of students that have paid their school fees. It includes the name and matric number of the student, transaction id for the payment, session for which the payment is made and the amount paid and the status of the student to show that he/she has paid his/her school fees.
- viii. **agents:** This table records the name, username and password of agents that have access to the APPS system.
- ix. **hostels:** This table records the details of each bed space in the hostel. It contains the hostel name, gender that uses the hostel, block name, room name and bed space.
- x. **admin_Users:** This table records the name, username and password of the administrator and the date and time the admin last logged into the system.

CHAPTER FOUR

SYSTEM DEVELOPMENT

4.1 Choice of Tools

This Chapter addresses the different kinds of devices that have being utilized to make this undertaking a triumph. It includes the utilization of current web innovations including:

- i. **CSS (Cascading Style Sheet):** It gives a It gives an approach to style and build the introduction of HTML. It gives a wonderful, all around framed, appealing, fine and basic style that empowers the framework become more satisfactory. Twitter Bootstrap is additionally used to improve the presence of the interfaces of the application program.
- ii. **HTML (Hyper Text Markup Language):** Hyper Text Markup Language is a markup language that internet browsers use to decipher and create text, pictures and other material into visual or discernible pages. Default qualities for each thing of HTML markup are characterized in the program, and these attributes can be adjusted or improved by the website page originator's extra utilization of CSS.
- iii. **JavaScript and jQuery:** JavaScript permit customer side contents to connect with the client, control the program, convey no concurrently, and adjust the report content that is shown. The most utilized JS library, jQuery is built to ease engineers when making scripts for a website page. A few highlights are choice and control of components, CSS control and HTML occasion capacities.
- iv. **PHP (PHP Hyper Text Preprocessor):** It gives a medium through which a page can speak with the data set in recovering, adding/changing and erasing records. PHP which is the significant online innovation that was utilized, on account of how adaptable,

dynamic, effective and dependable it is, empowers the control of records from the data set.

- v. **MySQL:** MySQL is an energetically open-source Relational Database Management System (RDBMS) that uses Structured Query Language (SQL). SQL is the most standard language for adding, getting to and regulating content in a data base. It is by and large noted for its expedient getting ready, shown faithful quality, straightforwardness and flexibility of use.

4.2 Features of the System

4.2.1 Login Page

This gives an interface that confine an unapproved client from getting to the application, its goal is to approve and validate a client prior to conceding admittance to him/her dependent on his/her entrance level (for example Specialist or Administrator) to get to various part of the application, contingent upon their advantages characterized by the application. It additionally permits new understudies that have being made by the manager to enroll and utilize the application.

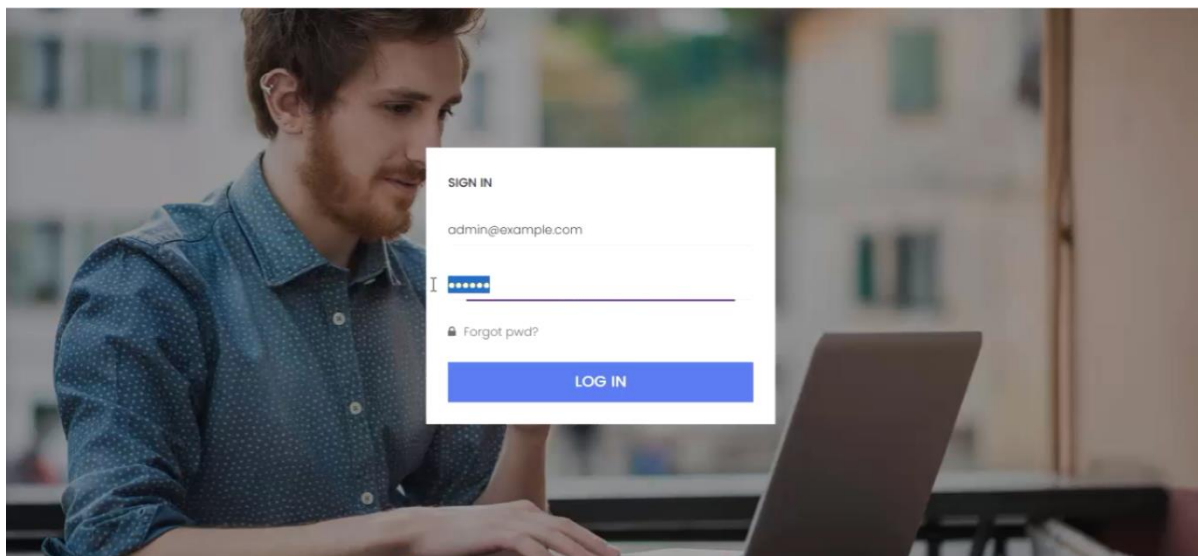


Figure 4 Home Page (index.php)

4.2.2 Administrator Page

This page gives every one of the functionalities a manager can perform for example make understudy record; update school charges and meeting, show understudies and convenience.

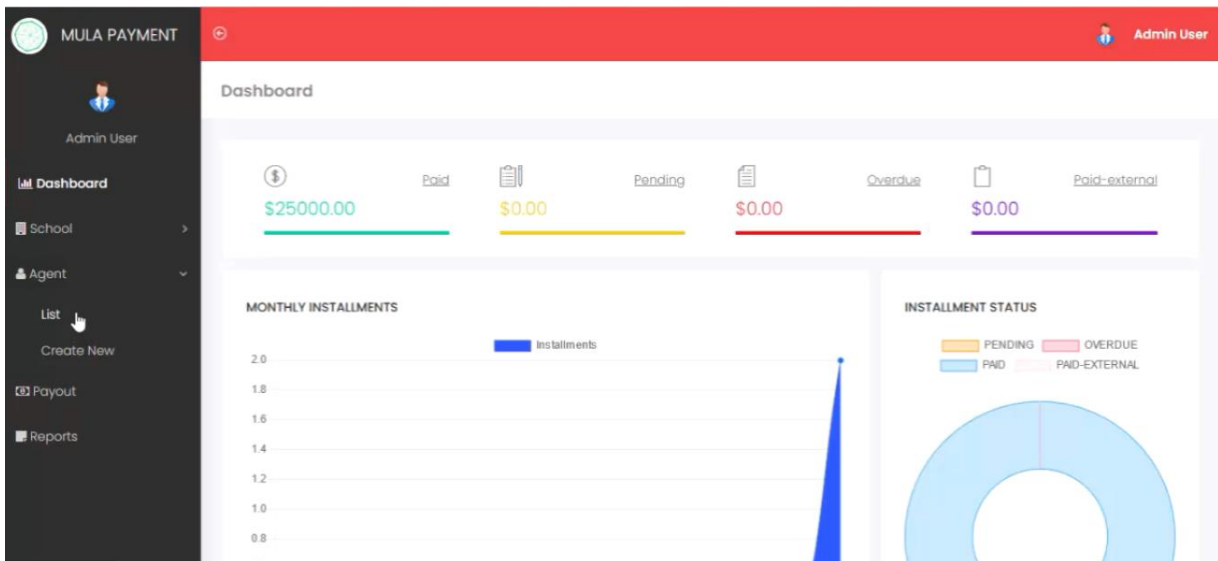


Figure 5 Admin Dashboard (adminDashboard.php)

4.2.3 Student Page

This page gives every one of the functionalities an understudy can perform for example Pay school expenses, check installment history, print receipt, check equilibrium, convenience and

change

secret

phrase.

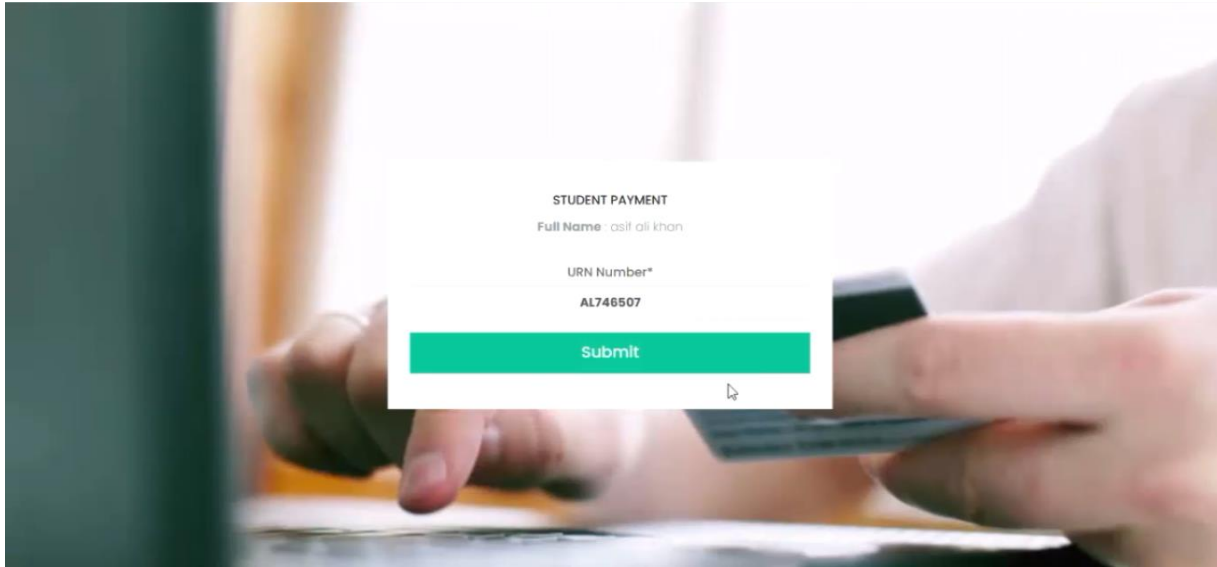


Figure 6 Student Page: Showing the Dashboard of a Student

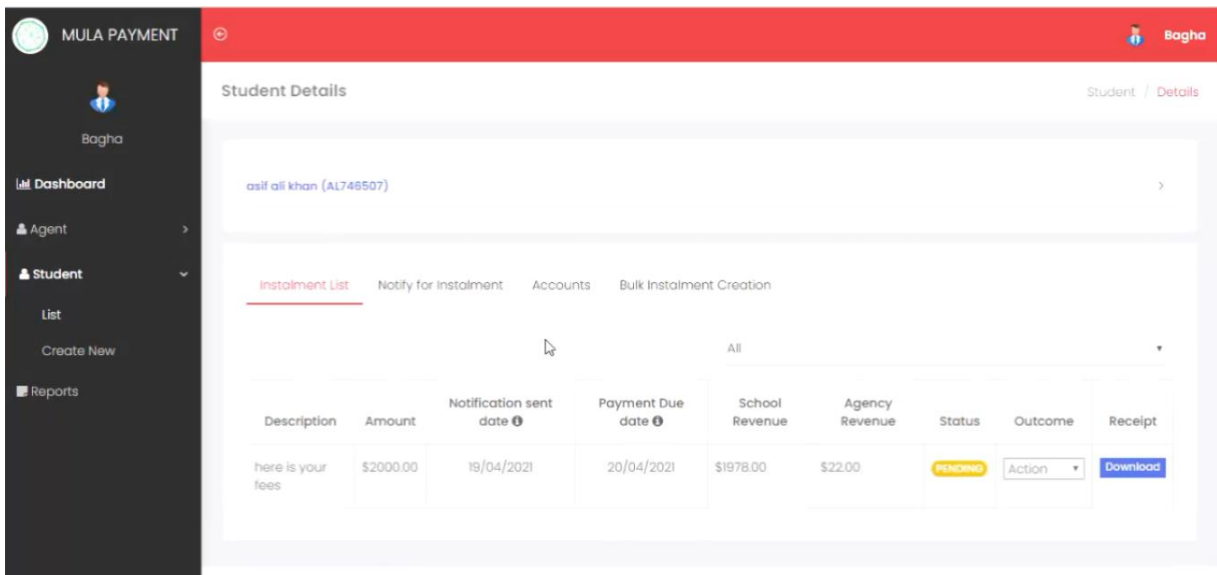


Figure 7 Student Page: Viewing the Student Balance

4.2.4 Agent Page

This page fills in as a vehicle for specialists to get to the financial part of the application. It permits specialist to enroll understudies, affirm understudy store, print receipt and furthermore check understudy installment history.

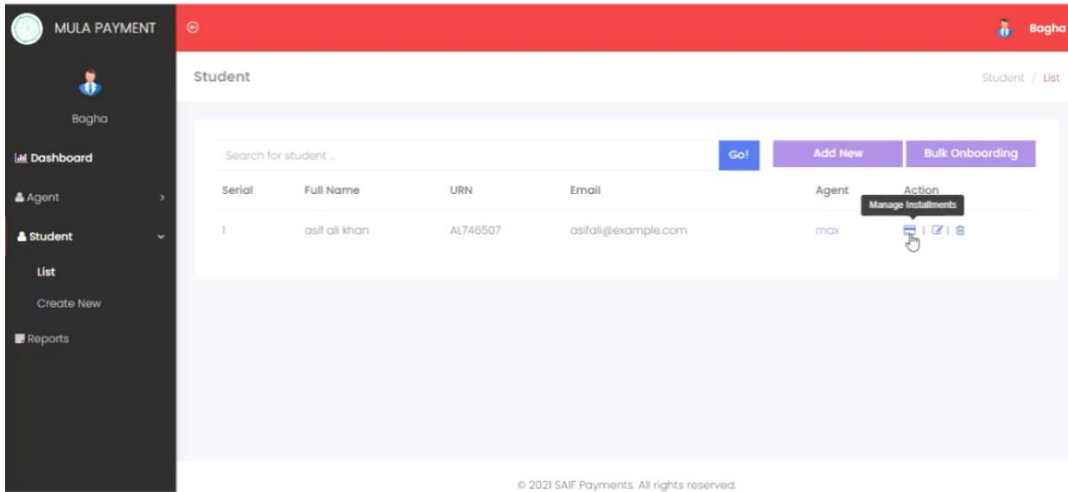


Figure 8 Agent Page

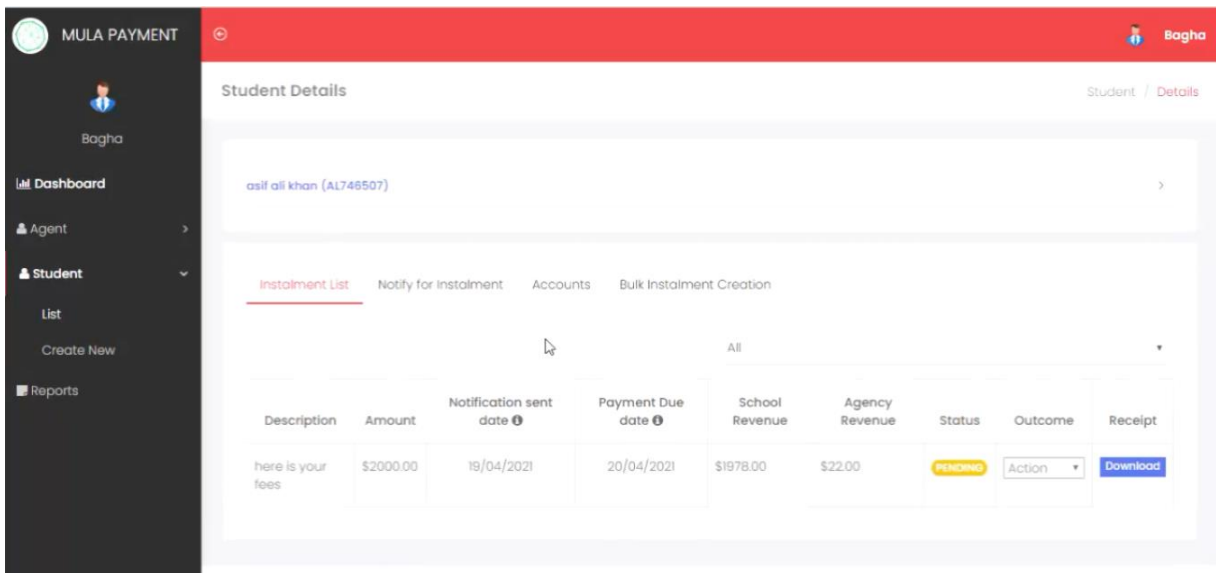


Figure 9 Agent Page: Shows the matric number of the student to be attended to by the agent

4.2.5 Deposit Page

This page gives the essential usefulness of the specialist for example permits an understudy to pay into his/her record. The installment is affirmed by the specialist. This page gives an approach to understudies to credit their records whenever.

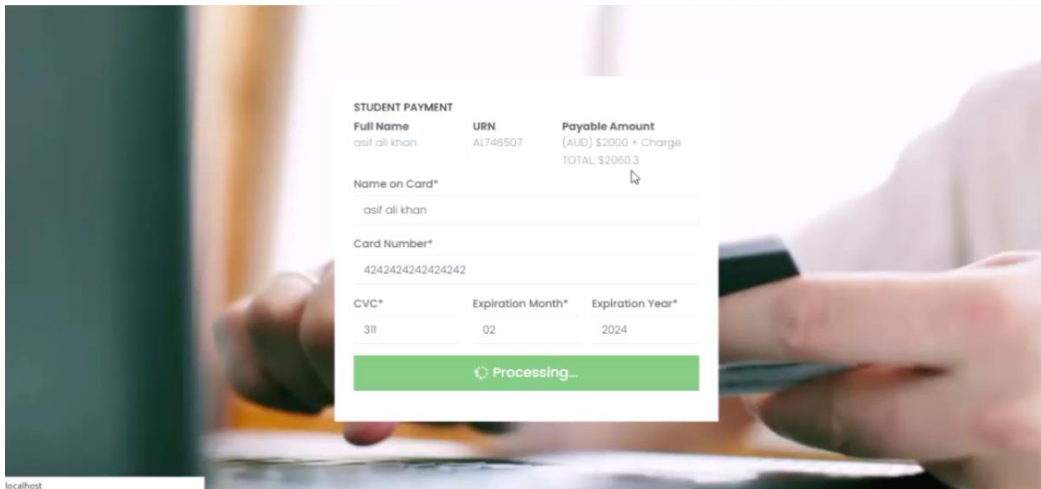


Figure 10 Student Payment Deposit Page

THANK YOU!



Your payment has been processed successfully!

Figure 11 Student page: Shows a Student has successfully deposited into his/her account

4.2.6 School Fees Page

The usefulness encased in this page is to permit understudy effectively pay his/her school charges without strolling to a bank to make installment. It anyway possibly affirms the installment if the understudy has sufficient assets in his/her record or in any case advises the understudy to credit his/her record prior to making installment.

CHAPTER FIVE

CONCLUSION

5.1 Summary

The project work covered all the essential processes involved in designing and developing a web-based portal payment system. The system is aimed to find out the issues associated with the present issues involved in payment of school fees and accommodation fees at the Daffodil International University, Dhaka Campus.

The student record is made by the administrator and only after this step can the student be able to register to use the system. The student registers with his/her matric number and a password of his/her choice. The student can walk to any of the designated banks anytime during banking hours and make deposit into his/her account. Then during registration, a student simply logs into his/her portal and makes payment. Also, the student can also pay for his/her accommodation. This process is possible as far as the student has enough funds in his/her account.

The function the administrator can perform is to make a student record, update school fees and session, show accommodation and record of student's currently registered and using the application. There are forms on different pages of the appliance that creates the administrator achieve these functions.

5.2 Conclusion

Progression in innovation is causing mechanization of mechanical exercises to turn into a vital part of our everyday lives. Since the utilization of PCs is currently broad, the reception of this framework will cause life to get simpler for us all of us.

The undertaking tried to foster an online charges installment framework that gives alleviation of the since quite a while ago suffered issues of the current methods of paying expenses in Ahmadu Bello University. Issues that understudy and their supporters confronted with respect to paying charges to the college were recognized and an answer was planned. An electronic framework that empowers understudies and their backers to pay college charges was created. This framework was invited by the entirety of its clients who trusted it would tackle a large portion of the issues and improve conditions with respect to paying charges in Ahmadu Bello University. The undertaking accomplished every one of its goals and subsequently, APPS was planned, created, tried and approved with genuine clients. Subsequently, it was demonstrated that this online framework was fit to be executed.

5.3 **Recommendations**

Having met the predetermined goal of the proposed project and after a significant assessment of the created framework, I will jump at the chance to recommend the accompanying suggestions for additional exploration work and improvement openings.

- i Daffodil International University should embrace and carry out the created framework as it will improve the states of expenses installment.
- ii The Government of Bangladesh ought to institute laws and execute arrangements that empower and favor online installments by residents in the country.
- iii The analysts recognize that security is a danger to each framework and in this manner empower that most extreme exertion be devoted to guarantee security of the online exchanges through foundation of sound security foundation.

- iv A portable adaptation of the framework ought to be made to permit client access the framework from any gadget other than a PC accordingly improving the versatility of the gadget.

REFERENCES

1. Abrazhevich, D. (2004). Electronic installment frameworks: A client focused viewpoint and association plan. Eindhoven: Technische University, Eindhoven.
2. Akampwera G., Ashaba J., Lwanga N., Sekibira R. (2013),
Online expenses installment framework for Makerere University (muk-ofps); Undergraduate Project, Makerere University.
3. Taiwo Olufemi, Asaolu Tajudeen and John Ayoola., (2011) Electronic Payment System in Bangladesh: Implementation, Constraints and Solutions, Journal of Management and Society, Vol. 1, No 2, pp. 16-21.
4. E-Commerce Payment Systems (2014). <http://www.tutorialspoint.com> [Online] Available
http://www.tutorialspoint.com/e_commerce/e_commerce_payment_systems.htm (September 3, 2014).
5. Fisser, P. (2001) “Using Information and Communication Technology”. Ph.D. thesis, Netherlands: University of Twente.
6. Laplante, Philip A., “Continuous frameworks plan and examination – An Engineer’s Handbook, 2nd ed. IEEE Press, Piscataway, NJ, USA, <http://www.ieee.org>, 1997”
7. Kalakota, R. and Whinston, A. (1997). Electronic business: a chief's guide. Addison- Wesley.

8. Luke Welling, Laura Thompson, (2003). *PHP and MYSQL Web Development: Second Edition*, Sams Publishing.

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