

LEARNING MANAGEMENT SYSTEM AND E-SHOP.

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This Report is 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/internship titled “**LEARNING MANAGEMENT SYSTEM AND E-SHOP**”, submitted by SALMAN AHMED, ID No: 151-15-5418 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 11-12-2018.

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I hereby declare that, this project has been done by me under the supervision of **Md. Sazzadur Ahamed, Lecturer, Department of CSE**, Daffodil International University. I 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, I must acknowledge with due respect the constant support and patients of my parent.

ABSTRACT

LMS (Learning Management System) & E-Shop provides the opportunity of getting online based learning system and online shopping.

There are few techniques and methods are available that gives peoples the opportunity to take action with dynamically. Students, Teachers and Customer can register with giving information like name, email, phone number, address etc.

If any person already registered by username/email. The web site show “Already registered”. A requesting signs up info will go to admin/controller of website, when admin accept the request. The account will be activated.

Then, they can sign in with user name and password. If he or she is a student then he get the student admin area, he or she can buy course and can start learning. If login as teacher then teacher can create new course.

For the customer he can buy any project for them. Then after buy customer get the product at home through Parcel/Courier Service. Students get a new learning place and teacher get a new academy to share his skill. Education system now will be digital.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

We are live in digital or modern era. Everything are converting to digital. Without internet it is impossible to pass a single day. Internet is now our part of life. Every day we waste 4-5 hours in internet at least unless. If in this time we can learn or study at online, may it will be very helpful for us as a student.

1.2 Motivation

To create something unique and different from others is the main motivation. Online learning and online shop in one site. The education system make to easier and efficient. Digital learning system. Teachers earn money & students will be more skillful.

1.3 Objectives

Objectives of this project are as follows:

- a) E-Learning – Online Learning System.
- b) Education System to More Easier and Efficient.
- c) Teachers can earn money and share knowledge.
- d) Skills for student success.
- e) Online Business - Shop (e-commerce).
- f) Multiple Payment Options (credit card, PayPal, bKash, Dutch-Bangla).
- g) Bangla Language.
- h) Accessibility World Wide.

1.4 Expected Outcome

- ✓ Learn and skill Develop
- ✓ Teachers Can Make Money
- ✓ Benefit For Students (Learning , Skill Dev)
- ✓ No Need To Go Outside, Can Learn From World Wide. Also Get Certificate.
- ✓ Any One Can Start Online Business
- ✓ People Can Buy There Products From Online
- ✓ Education system will be more efficient.
- ✓ Communication between Teachers and Students will be more strong

1.5 Report Layout

In the chapter 2, I introduced requirements theory of my project. I am also briefed on about the related work, the scope and challenges of the project. In chapter 3, I discussed coding backgrounds of study for our project. In the chapter 4, I specified the requirement of the project. In the section I defined the data flow diagram use case, ER diagram and design requirements. I am also discussed about the requirement collection and analysis process. I am also briefed on about the related work, the scope and challenges of the project. I specified the front end and the back end design of the project in the chapter 5. In the chapter 6, I discussed about conclusion and the scope for further development of the project.

CHAPTER 2

BACKGROUND

2.1 Introduction

Before creating this Website, I have thought the easiest and better way for student to get skills. Teacher can share their knowledge and make some money by selling course. E-Learning and shopping in one site. The education system make to easier and efficient. This kinds of unique system very need for us.

2.2 Related Works

I have built this app regarding the online learning platform. So, I have an analysis depend on the online learning system and online shopping. According to my analysis, I have found only these similar web apps that are currently available in the google.

Existing web Apps:

- ✓ [udemy.com](https://www.udemy.com)
- ✓ [lynda.com](https://www.lynda.com)
- ✓ [tutsplus.com](https://www.tutsplus.com)
- ✓ [daraz.com.bd](https://www.daraz.com.bd)

In this four of the apps you give also online learning system. They are international and full English language support.

2.3 Challenges

It's a common thing in performing an activity is challenges. There is no work exists without challenge. Similarly, in my project, I have faced some challenges.

At the starting time of building my app, I am just the idea of the system. But I have no idea that how to implement. Our honorable sir Md Sazzadur Ahmed has been helped more which is really indefeasible. For his care and support finally I have been able to attain to build the system.

CHAPTER 3

SYSTEM DESIGN AND REQUIREMENT SPECIFICATION

3.1 Requirement Application

Requirement collection and analysis is one of the primary phases of application development. Before installing the actual software some pre-requisites of the desired system must be installed first, these includes-

- ✓ Operation system (windows 7/8/10)
- ✓ Browser
- ✓ Android ISO Mobile
- ✓ Android Studio
- ✓ Wamp Server

Wampserver 3.1.0 64 bit x64 – Apache 2.4.27 – PHP 5.6.31, 7.0.23, 7.1.9 – MySQL 5.7.19 – MariaDB 10.2.8 – PhpMyAdmin 4.7.4 – Adminer 4.3.1 – PhpSysInfo 3.2.7

3.2 Data Flow Diagram

A data flow diagram (DFD) is a graphical representation of the "flow" of data through an information system, modelling its *process* aspects. A DFD is often used as a preliminary step to create an overview of the system without going into great detail, which can later be elaborated. DFDs can also be used for the visualization of data processing (structured design).

A DFD shows what kind of information will be input to and output from the system, how the data will advance through the system, and where the data will be stored. It does not show information about process timing or whether processes will operate in sequence or in parallel, unlike a traditional structured flowchart which focuses on control flow, or a UML activity workflow diagram, which presents both control and data flows as a unified model. The following fig of 3.2.1 are shown our system's 0-level DFD.

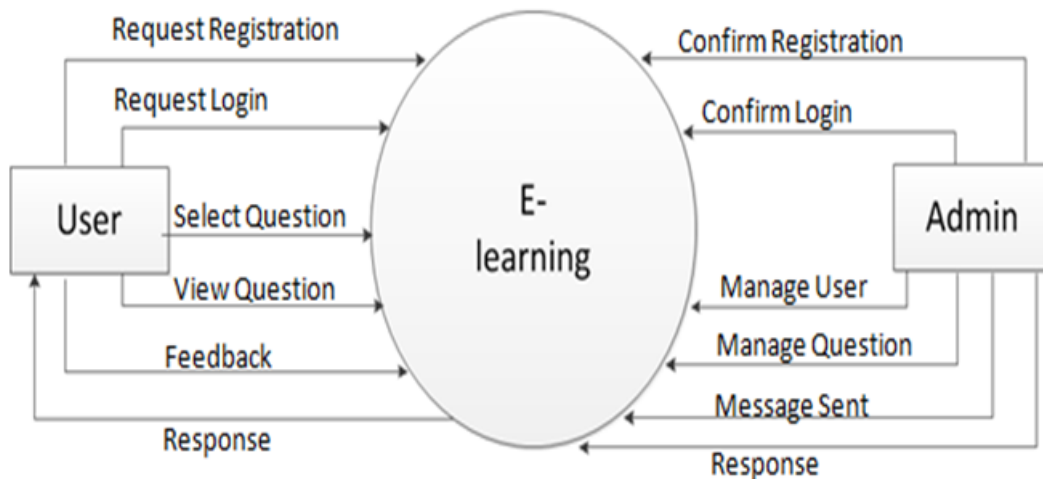


Figure 3.2.1: 0 level DFD

3.3 E-R Diagram

An Entity Relationship (ER) Diagram is a type of flowchart that illustrates. How “entities” such as people, objects or concepts relate to each other within a system. ER Diagrams are most often used to design or debug relational databases in the fields of software engineering, business information systems, education and research. Also known as ERDs or ER Models, they use a defined set of symbols such as rectangles, diamonds, ovals and connecting lines to depict the interconnectedness of entities, relationships and their attributes. They mirror grammatical structure, with entities as nouns and relationships as verbs. [2] The following fig 3.3.1 is shown our system’s ER Diagram.

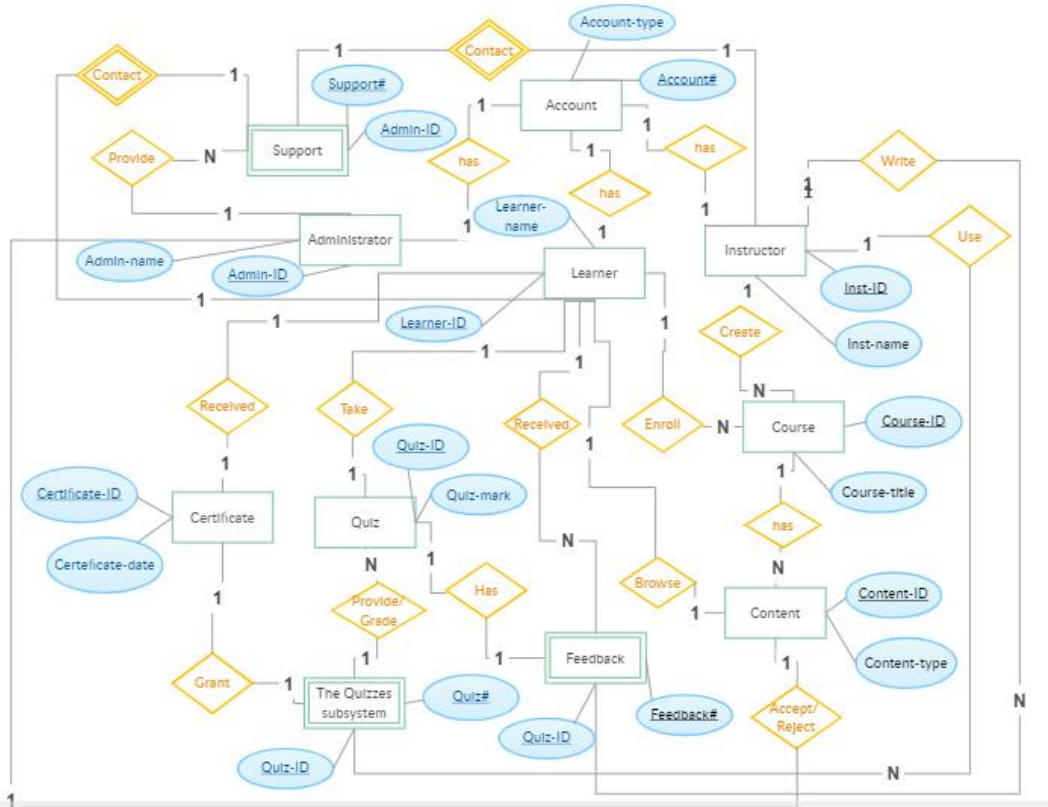


Fig 3.3.1: E-R Diagram

3.4 Design Requirement

The design requirements for my project will differ from other projects because my project will be working based on specific online learning system, product or experience that I have designed. I designed my project for a specific segment, that is to develop an online learning system and I try to provide all things to an online learning system and online shop that are necessary for a student, teacher and product seeker to get website access easily.

CHAPTER 4

DESIGN SPECIFICATION

4.1 Front-end Design

Front-end is a most important part of the website. It's worked on presentation layer and it directly displayed to user, so the only way to interact with system is front-end and it's very important to develop a simple and easily understanding front-end or GUI for user. There is very popular quote about design that, "Everything must be made as simple as possible. But not simpler" by Albert Einstein, so i tried to keep our design as simple and easy accessible for user, although the development tasks weren't easy. After all, I design it for user and hope that user will accept my system easily. In bellow I attach my application front-end design.

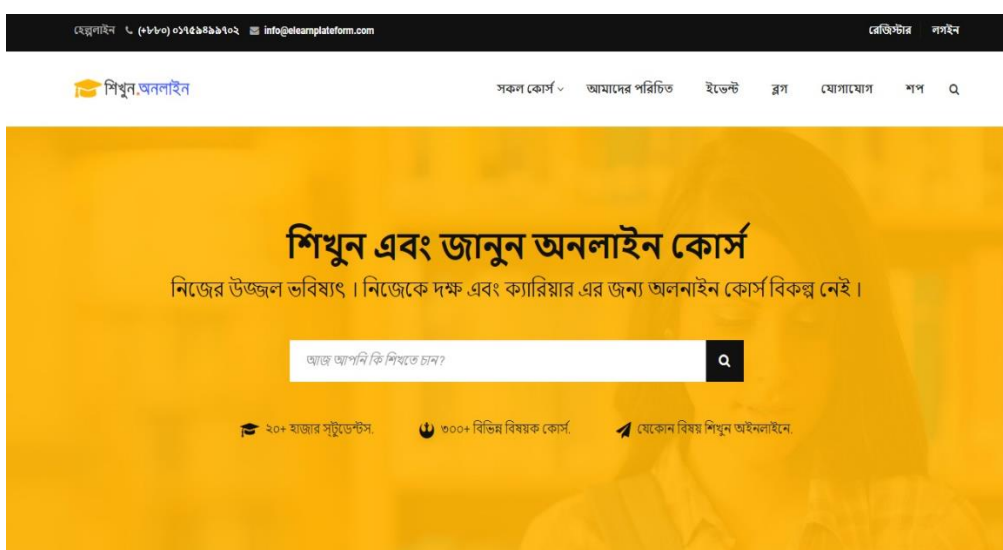


Figure 4.1.1: Top Home Page.



জনপ্রিয় কোর্সগুলো

VIEW ALL

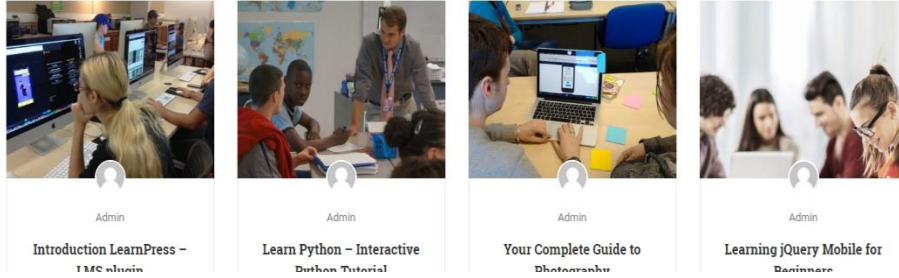


Figure 4.1.2: Bottom Home Page.



Figure 4.1.3: Blogging community

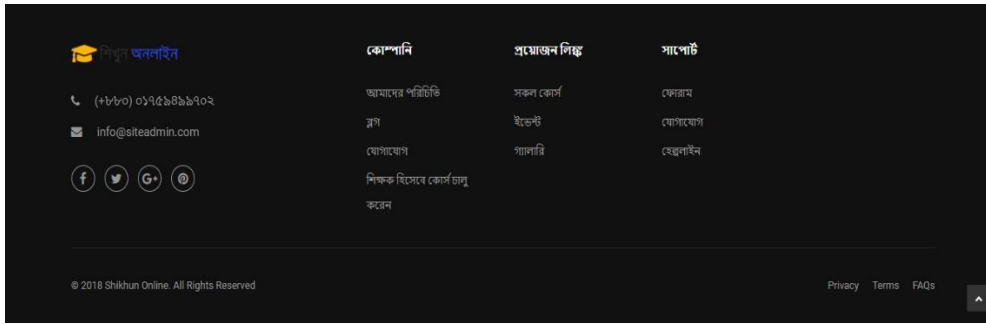


Figure 4.1.4: Footer

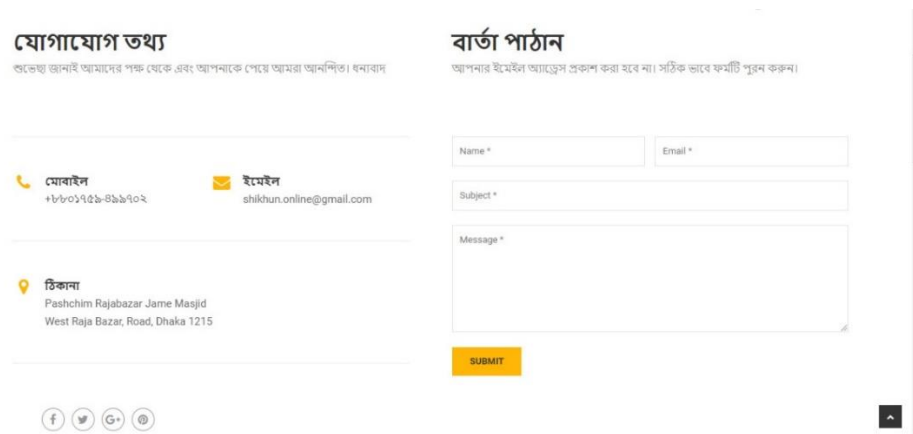


Figure 4.1.5: Contact Form and Location for any suggestion or complaining.

4.2 Back-end Design Features

My project is almost fully dynamic features which is the part of Back-end. I used PHP, MYSQL, JAVASCRIPT, WordPress and local wamp server to develop and maintain the Back-end section. After completing the whole web app, I transferred it in live server with domain and hosting.

Register

Username

Email

Password

Repeat Password

Want to become an instructor?

7 + 4 =

SIGN UP

Are you a member? [Login now](#)

Fig 4.2.1: Sign up for Student & Sign up for Teacher


In fig 4.2.1 has two of sign up or create a/c for student and teacher. Without sign up a student enroll and access course.

If you want a sign up as a teacher with checked the box select and then the fill the box with the sum of showing digit.

If already has created an account as teacher / student. They can do their activity by signing the form, the database can automatic detect the user and for them their self-account profile are opened. The following only form is fig 4.2.2

Login with your site account

Username or email

Password 

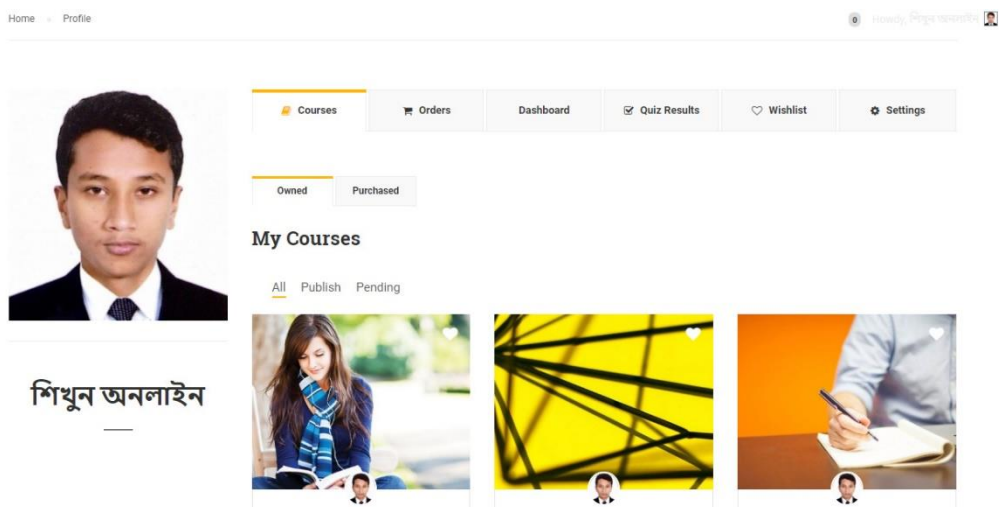
3 + 1 =

Remember Me [Lost your password?](#)

LOGIN

Not a member yet? [Register now](#)

Fig 4.2.2: Sign in process for teacher and student.



In fig 4.2.3 Teacher Dashboard.

After successfully registration teacher create course. For course posting he/she must be providing his course contents, course details, course title, course category, course price, course outline, set course featured image. After he/she complete this requirement then click to publish button, it will be checked or review by admin panel, then if they think it's all right and fill the requirements they publish it on site. The following fig 4.2.5 is shown the process.

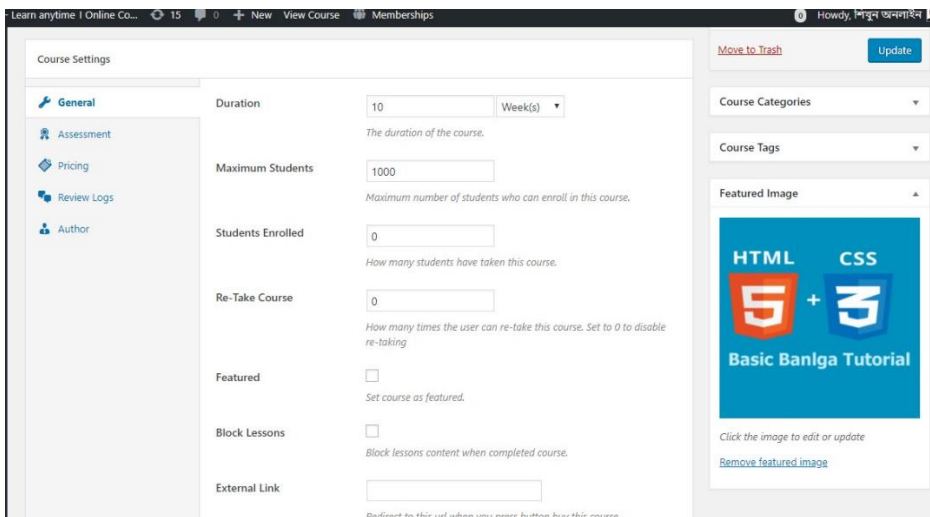
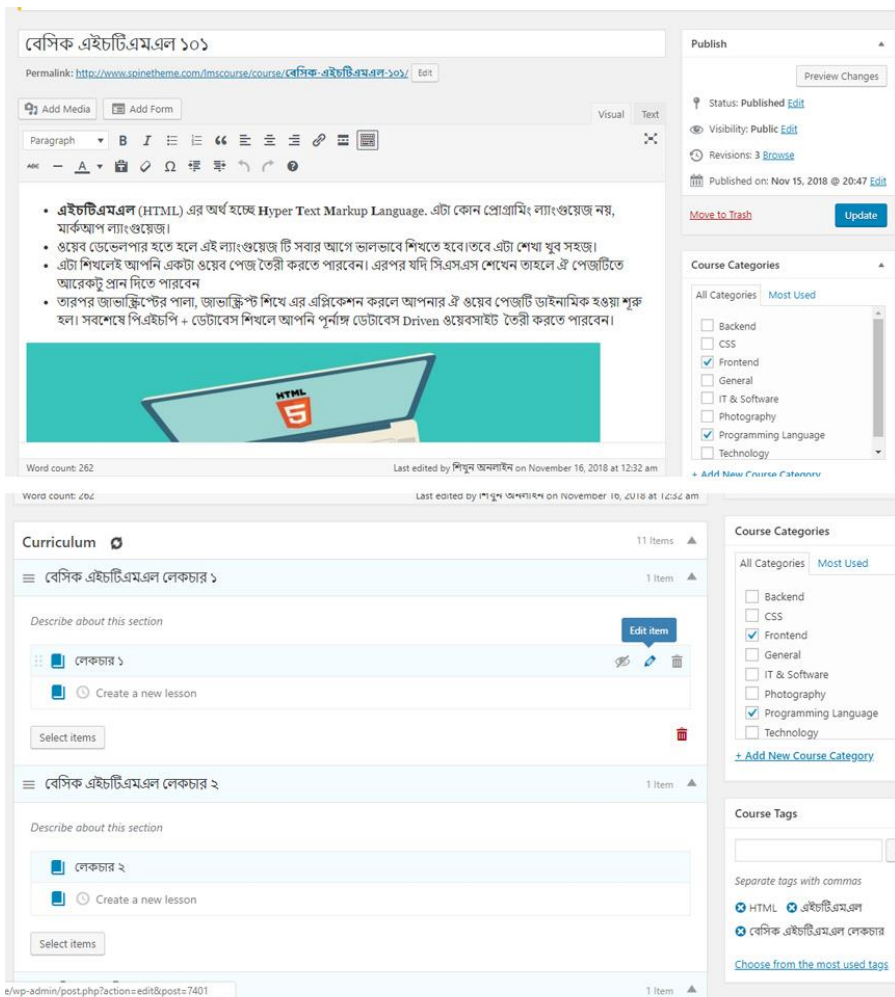


Fig 4.2.4: Course creating process for teacher.

When the course published, then the course will show in course list. The following fig 4.2.5: all course list.

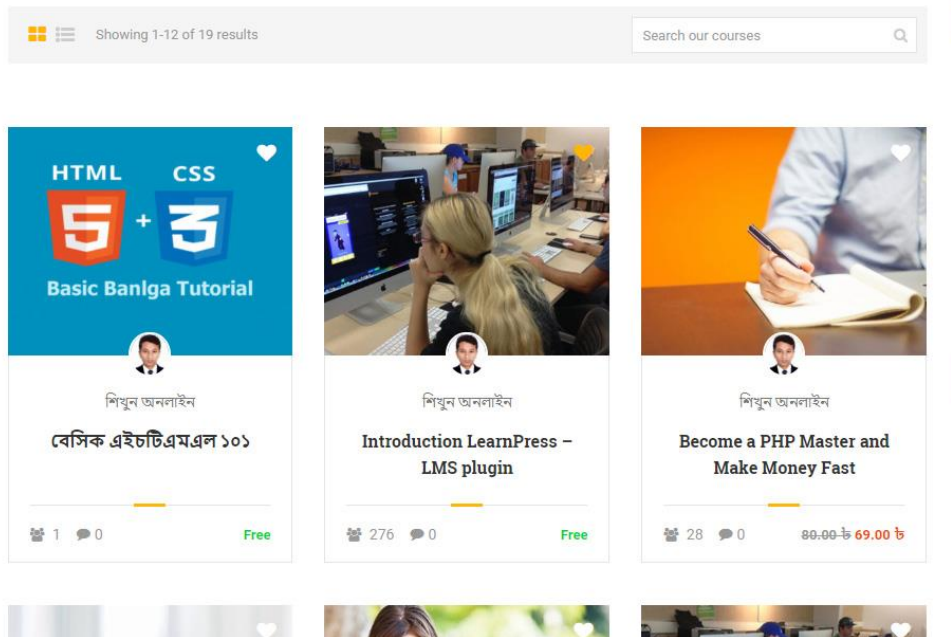


Fig 4.2.5: all course list, which course's already published.



Fig 4.2.6: Course details page

Student enroll the course, they get course all content and can start learning. Shown in fig 4.2.7.

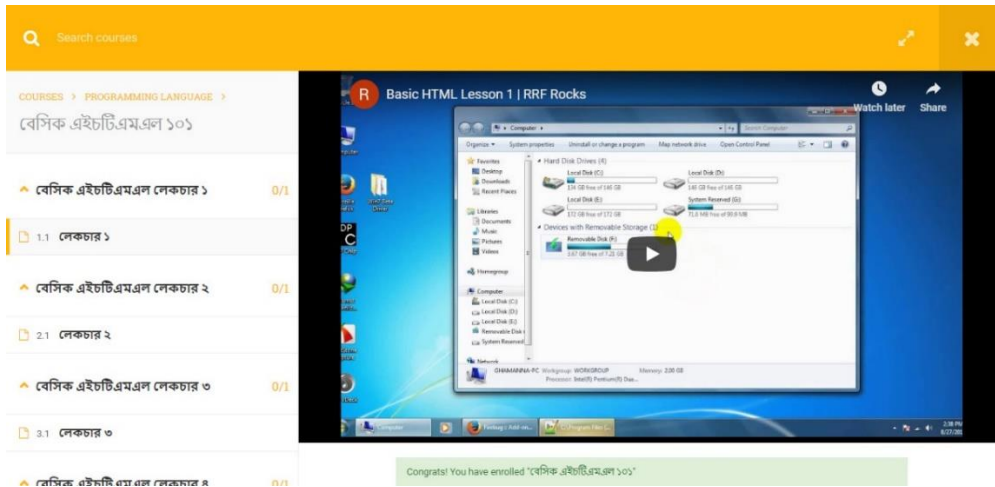


Fig 4.2.7: Course content page

If anyone want to get all new offer, news, blog, event date. They can get all the information by subscribe with email address the following which is displayed in fig 4.2.8.

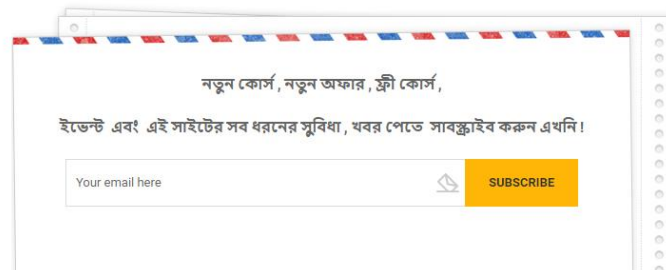


Fig 4.2.8: Subscribe form to get all news and offers.

The students can also search as filtering by keywords and category which are shown the following fig 4.2.9.

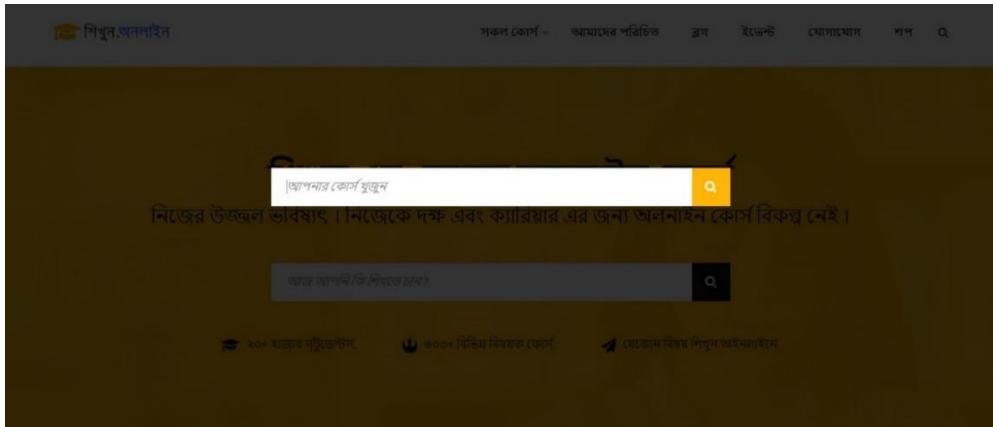


Fig 4.2.9: Search with keyword

When a visitor wants to buy products for them, they need go to shop page and order with payment. Following fig 4.3.1

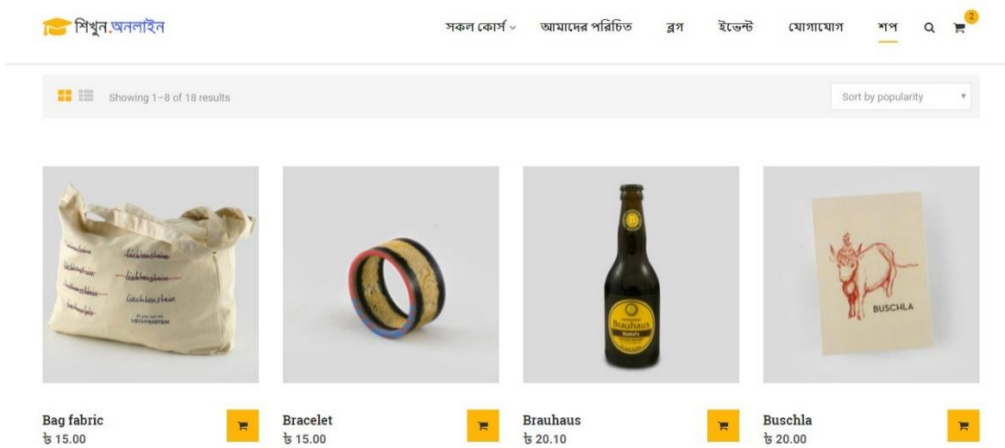




Fig 4.3.1: Shop page

		Product	Price	Quantity	Total
		Corkscrew	₹ 18.20	<input type="text" value="1"/>	₹ 18.20


Coupon code **APPLY COUPON** **UPDATE CART**

CART TOTALS

Subtotal	₹ 18.20
Shipping	Free shipping Calculate shipping
Total	₹ 18.20

PROCEED TO CHECKOUT

bKash Charge	₹ 0.76
Total	₹ 38.56



Direct bank transfer
 Check payments
 Cash on delivery
 bKash 

Please complete your bKash payment at first, then fill up the form below. Also note that 2% bKash "SEND MONEY" cost will be added with net price. Total amount you need to send us at ₹ 38.56

bKash Agent Number : +8801759499702

bKash Number

bKash Transaction ID

Rocket 
 PayPal 

I have read and agree to the website [terms and conditions](#) *

PLACE ORDER

Fig 4.3.2: Product order page and payment

When a visitor wants to see the upcoming event and event information, then she/he needs go to event page. Following fig 4.3.3.

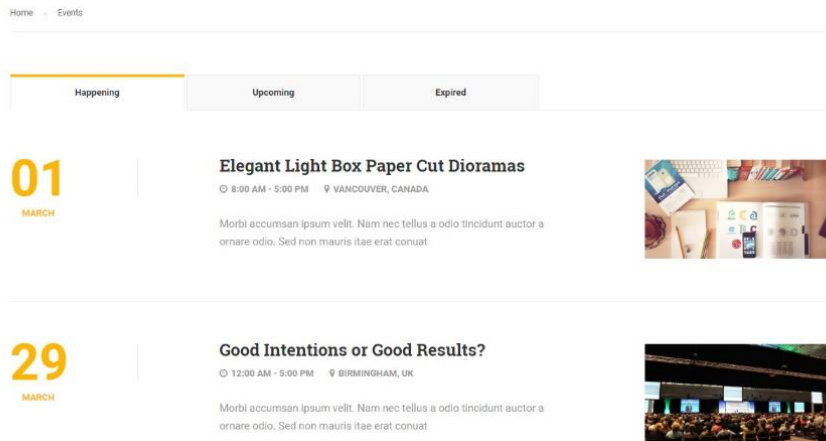


Fig 4.3.3: Event page.

An android app creating for this project. Now days everyone use smartphone with Android ISO. So I make this android responsive apps for this project. Development work of this apps processing - APK. See the fig 4.3.4

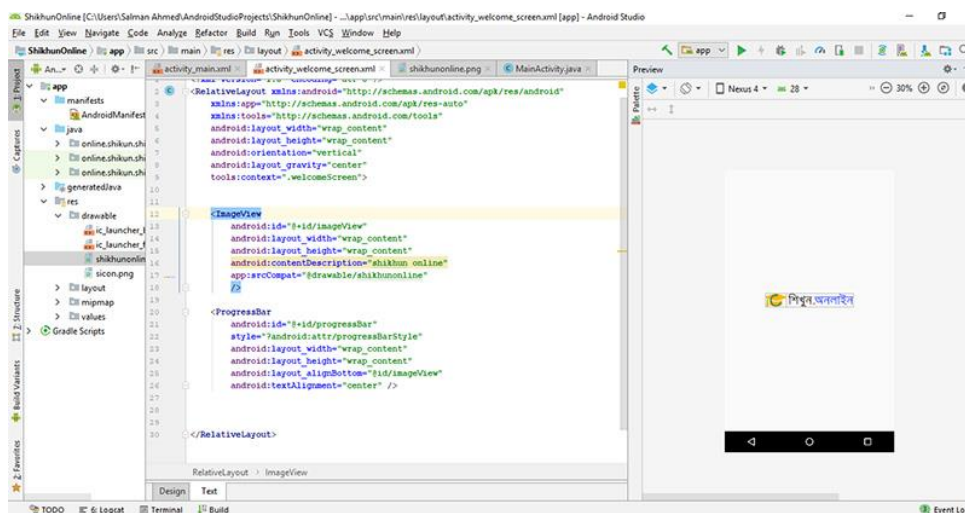


Fig 4.3.4: Project Android App Development Processing (screenshot).

4.3 Interaction Design and UX

This is a question we hear a lot. Unfortunately, there's no simple answer to this question. Firstly, that's because there no globally agreed definition of the two website different. That means that our explanation user needs to change and requirement in the suggestion with priority in the website perspective.

Interaction design is specifically a discipline, which examines the interaction between a system and its user. Actually an interaction design which call

understand the user problem domain, process the problem and find the result, do the action by respecting the result and solve the problem.

There no doubt that the activity created by an interaction designer needs to follow some form of UX design process. There no point in conducting user research and working out what user want if interaction designers who are responding to those needs are kept arm's length from UX research outputs.

Actually an interaction design which call understand the user problem domain, process the problem and find the result, do the action by respecting the result and solve the problem.

On the other hand, user experience focuses on the overall experience between a user and an application. In our project, there is some feature that can interact the user, one of the features is personal blog that can share the imagination or thought from one to another and could be motivate the system's use For UX I have tried to give some tremendous experience by my website. I keep my system simple and easier to use for better experience and performance to my worked so many to decrease the data loading time on my application and that effort will be continued. [7]

CHAPTER 5

IMPLEMENTATION AND TESTING

5.1 Implementation of Front-end and Back-end Design

The front-end and back-end is the important part to creating a web app. Without implementation them it is impossible to create a web app. In my system used some of the programming language which has some of the short description.

HTML AND CSS in the project: I have used HTML and CSS in Our project as a frontend Design. Web Page's header, center, footer, logo, menu, logo, photos all are created and design by HTML and CSS.

Usages of Bootstrap in the project: I have used Bootstrap for responsive to our web app so that it can supported in any kinds of big screen or small sizes device like projector, big monitor of PC, tablet device and any sizes of smartphones.

Database Management System in the project: In my system is used mysql for data retrieve and fetching for student registration, teacher registration, student info data, course provider info data, collection and counting data for order and fetching data for course requesting and published data and customer takes order info.

Usage of JAVASCRIPT and JQuery in the project: In my project JAVASCRIPT has been used for counting of course, shop customers and JQuery has been used for attractive design of my web app and animate.

PHP in the project: In this project for all tasks and activities we have used PHP as a backend. I used it for send data, fetching data, retrieving data and get request data from and to MySQL.

WordPress CMS in the project: WordPress is a free and open-source content management system based on PHP and MySQL. In this project i used it for main backend and for send mail, content store. WordPress keep very important rule for this project.

Learn Press in the project: Learn Press is a comprehensive WordPress LMS Plugin for WordPress, just like WordPress Moodle is. Learn press use for making course, course control and course all function for this project.

5.2 Testing

- ✓ Unit Testing
- ✓ Integration Testing
- ✓ Regression Testing
- ✓ System Testing

Unit Testing:

- ✓ Every individual activity is tested
- ✓ Finding service provider service's data
- ✓ Testing customer application and buying records.

Integration Testing:

- ✓ The back button leads to previous page

Regression Testing:

✓

If mobile data not enabled the app doesn't work.

System Testing:

✓

The entire system is tested to confirm the apps functionality

Black Box Testing:

✓

This test is all about whether the user is getting the information they want without concerning how the information they are getting.

5.3 Test Cases

The following table 5.3.1 describe my app registration test case result. Now we see that is very sincerely to create profile.

Table 5.3.1: Create Profile or Register Test Case

Test Case	Expected Output	Actual Output	Result
User Name	Salman	Successfully entered	success
Enter Email	salmancreationbd@gmail.com	Successfully entered	success
Enter Password	853	Error(PS must be 4 digit)	Failure
Click register Button	Successful create profile	Successful create profile	success
Blank Email	Error	Error	Failure
Blank Password	Error	Error	Failure

User Log in test case describe the following Table 5.3. 2

Table 5.3.2: Student / Teacher Log in Test Case

Test Case	Expected Output	Actual Output	Result
Enter Email Address / User Name			
Enter Password			
Click log in Button	Successful log in	Successful log in	success
Wrong Email	Error	Error	Failure
Wrong Password	Error	Error	Failure

The process of finding course with keyword ways which has been shown in fig 5.3.3

Table 5.3.3: Finding Course Case

Test Case	Expected Output	Actual Output	Result
Enter Keyword	Html	Found	Success
Enter Keyword	Amazon	Not Found	Failure
Enter Keyword	WordPress	Found	Success

The following Table 5.3.4 describe the test case of creating a profile for students.

Table 5.3.4: Creating Profile Case for Student.

Test Case	Expected Output	Actual Output	Result
Enter User Name	Harse	Successfully changed	Success
Change Password	123	Password must be minimum 6 digits	Failure
Select Image	Done	Successfully Entered	Success

CHAPTER 6

CONCLUSION AND FUTURE SCOPE

6.1 Discussions and Conclusion

After connecting with the application through the live server its overall features and functionalities just work fine. This application workflow and beautiful design are user-friendly and efficient enough to work with.

I have encouraged to developing this type of application because I think online based Learning system is not enough in Bangladesh than other developing countries and students and teacher of our countries lagging behind the other countries. So that's why I think to do something that helps our education system and student get more skills, also teacher can share they are knowledge and can earn money by selling course. I also include online shopping system, so that all user get this service in one web site, which is very helpful for them. I also created blogging community that helps the students, teacher and customers to get better service with commenting if they have any suggestions, reports and reviews to web site owner. Which is motivates to given good services to students, teachers and customers.

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

6.2 Scope for Future Developments

The system has been developed with future development possibilities in consideration. The proposed system should have the following facilities to serve the better education to the student and teachers.

- ✓ Cloud Hosting System.
- ✓ Android Apps More power full and download system for offline.
- ✓ SMS based alert system for students, teachers and customers.

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PLAGIARISM

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