

REGION-WISE SCHOOL RANKING THROUGH INFORMATION ANALYSIS

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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 "**Region-Wise School Ranking Through Information Analysis**", submitted by Ankan Lahiri, ID No: 161-15-7074 and Md. Sadiqul Islam, ID No: 161-15-7170 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 7th December, 2019.

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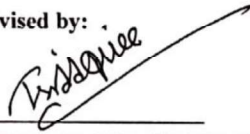
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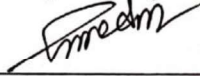
We hereby declare that, this project has been done by us under the supervision of SHAH MD TANVIR SIDDIQUE, Assistant Professor, Department of CSE Daffodil International University. We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

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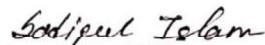


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ABSTRACT

Recently, there are many efforts to develop ranking systems for schools. “Increasing competition and wish for fight as a results of economic process, data based mostly economy and growing interest of knowledge associated with pedagogy establishments thanks to increasing quality of individuals all served for the outstanding quality of ranking systems”. Our website “Region-Wise School Ranking Through Information Analysis” provides the users gets all sorts of information regarding top 20 schools in Bangladesh and top 10 schools in every districts separately in Bangladesh. In our website “Region-Wise School Ranking Through Information Analysis”, there are some sorted features such as user log-in system, user registration, Verify Registration. All the similar districts top 10 schools list of that category and we created this ranking system based on their every years PSC, JSC and SSC result and also based on general peoples feedback. There is also a section for giving review and feedback. For creating new ranked schools profile there are some options such as adding schools name, academic result etc. This web based application runs on Open Source software, the website is written in PHP and the admin panel application is written in PHP & Java Script uses MySQL as the database manager. Respectfully judging the other ranking system related websites, we can assure that this system is the most users friendly and nourished information based website indeed.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

“Region-Wise School Ranking Through Information Analysis” is a web development project which will work as a top school ranking and information system. The users will get important information for admitted their child in school. An internet connection will be necessary if they want to know more information. They will know about the top 20 ranked school in Bangladesh and top 10 ranked school in every district separately. They will get the information about that top ranked schools addresses, academic results, problems, admission fees, users feedback, users ratings etc. This project will help them to know which school is suitable or not suitable for their children.

1.2 Motivation

There are many schools in our country. Some of these schools are good, some of them are bad. So it is very difficult to find out which school is good or bad. Most of the parents in our country can't understand which Schools academic results is good or bad, what kinds of problems are Occurs of these school, so they are much frustrate when they want to admit their child in the school. On the other hand many people are transfer another district for serve their job, in this reason they shift another district with their family. When they first come to another district, they can't know about which school is good or bad, which school is near of their house, tution fees etc of these Schools. In this reason they are much depressed and can't take proper decision.

So solving these kinds of problem we want to create a web application which name is “Region-Wise School Ranking Through Information Analysis” that can provide us what are the top 20 schools in Bangladesh and what are the top 10 schools in every district separately and also contains proper information of all the schools. We create this ranking system based on academic results of jsc, psc and ssc of a school and also based on users rating.

1.3 Objectives

In this website there are some sorted features but we create on some selected elements such as search district, comment box for users feedback, rating option for users for any school. First you will find the website homepage. Then you will get top 20 ranked schools list of that category, academic results lists, schools addresses, schools rating and environment, There is also a section for giving review and feedback. There is a log-in option for giving rating & feedback on schools in this website. On the other hand, there is also a district search option, if you search any districts name, then you can see what are the top 10 schools and all information of that school. If you are new user for this website then you have to completed sign-up method after giving your all information.

1.4 Expected Outcomes

After creating this website, we will have a platform where we can get top rank school with their proper information according to every year academic results, users feedback and rating in a particular district and overall Bangladesh. So that it is helpful for a user to find top rank schools in Bangladesh and separately every districts and also he can know the quality or remark the similarity and dissimilarity between them. users can get knowledge about the results, addresses, problems, environment and good or bad side etc. before admitting school for their child. Also after using this website user is eligible to give his/her feedback, share experience and given rating for that schools. So that if a school is in first position, after surveying that rank and feedback it may send that school to last position. And it is also visible to the schools committee.

In a single word we can say using our website all the people in Bangladesh will understand about Top rank school in Bangladesh and they can take proper decision that which school is perfect for their children and also understand about proper information of that top rank schools.

User:

Peoples can get the all latest information from the website and can search for their desire investigation regards this.

User can give their important comment and feedback in comment section to express their thoughts and views and they can give their own rating for those top rank school. Also they can suggest their choices, expectation and scope of improvement according to their experiences.

If any user forget their password for login this site and any user want to recover their password and other issues there is also a forgot password and recovery option is added to the website.

To control the security issues of the users there is a purifier added to protect the account from the malicious codes.

This website is really helpful if people want to proper information of top rank schools in Bangladesh.

CHAPTER 2

BACKGROUND

2.1 Introduction

To proceed the actual project, we have to research and investigate about the already exist project to further approach. This is known as background study. In doing background study we also compare, criticize with other related work in this field and went to the depth of the project When we first thought about our idea of making this project we were aware of some related project. There are some university ranking system website in the other countries. But no websites for school ranking and information analysis in our country. So in this reason, we though that if we would create this types of website, general people in our country could easily know which are the top rank schools in Bangladesh with some important information and this website could also help them to take proper decision to admitted their child into school.

2.2 Similar Types of Works

After so many researches we found very few websites like school ranking and information system. Let's discuss about their states and circumstances. "NICHE", "QS TOP UNIVERSITIES", "QS world university ranking", "CWUR" etc are this types of project .And also there are different types of websites for hospital information, restaurants information, hotel information and ATM booth information.

We studied some of those website for the betterment of our project. We analyzed those project, their pros and cons to make our project better. We found out their weaknesses and strengths so that we can remove those weaknesses from our project and add more strengths to it. We analyzed many project but here we will be discussing about few of those.

After research we found that every project has its own specialty. We found that the key features of that particular school. They are:

Description about NICHE:

“NICHE” This website provides top school ranking for America[5]. From this what we get is

given below:

There are some special features of this website such as:

This website provides top school ranking for America.

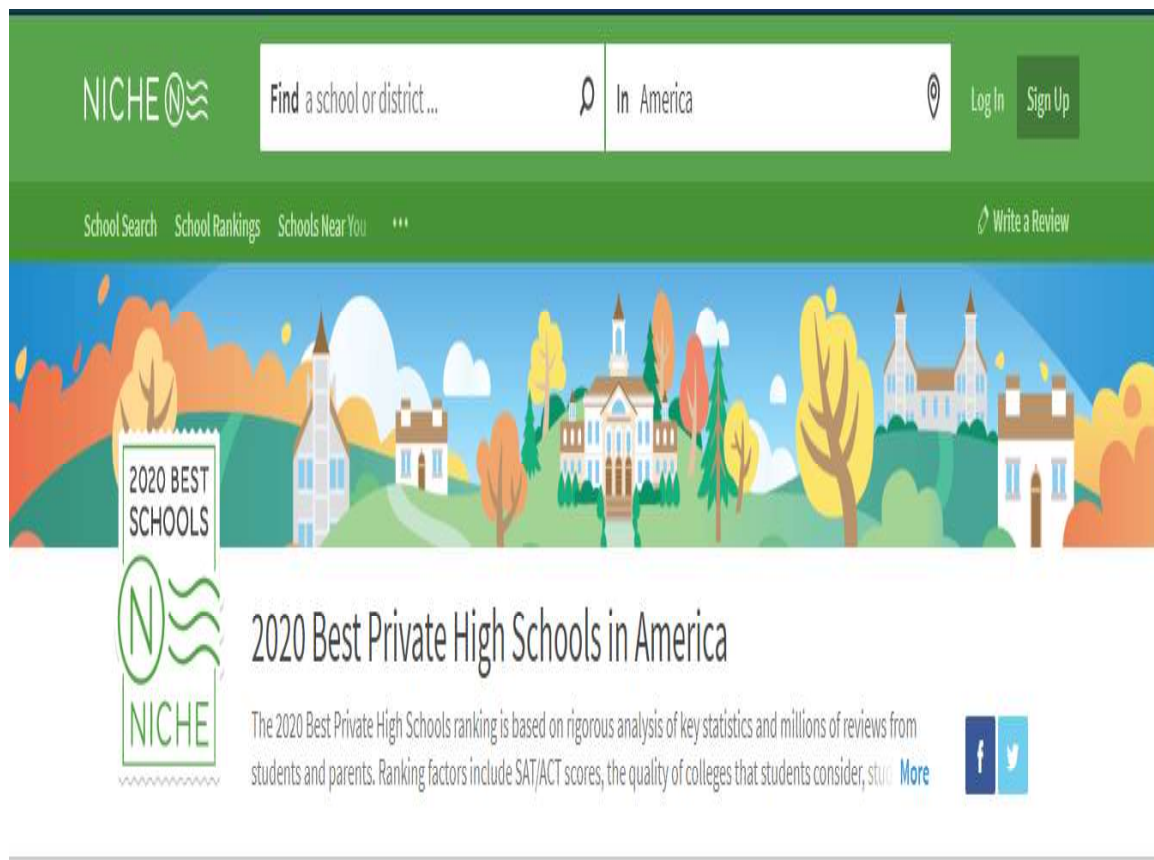


Figure 2.2.1: Top schools in America [5]

There are some special features of this website such as:

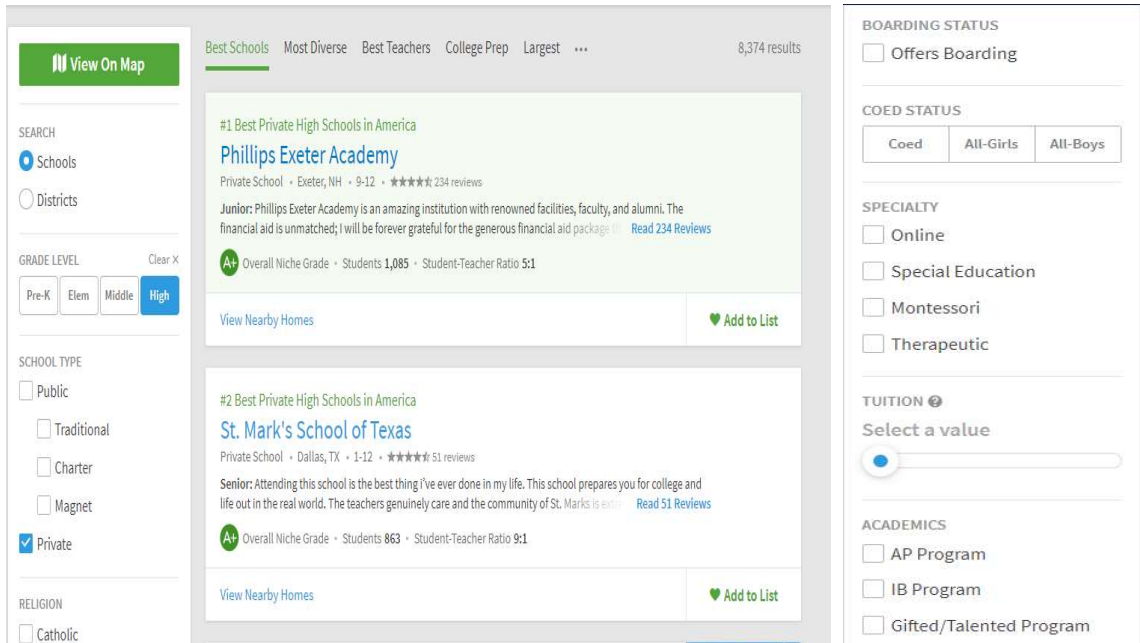


Figure 2.2.2: Top schools in America [5]

QS TOP UNIVERSITIES

This website provides top rank universities with some special features[4].

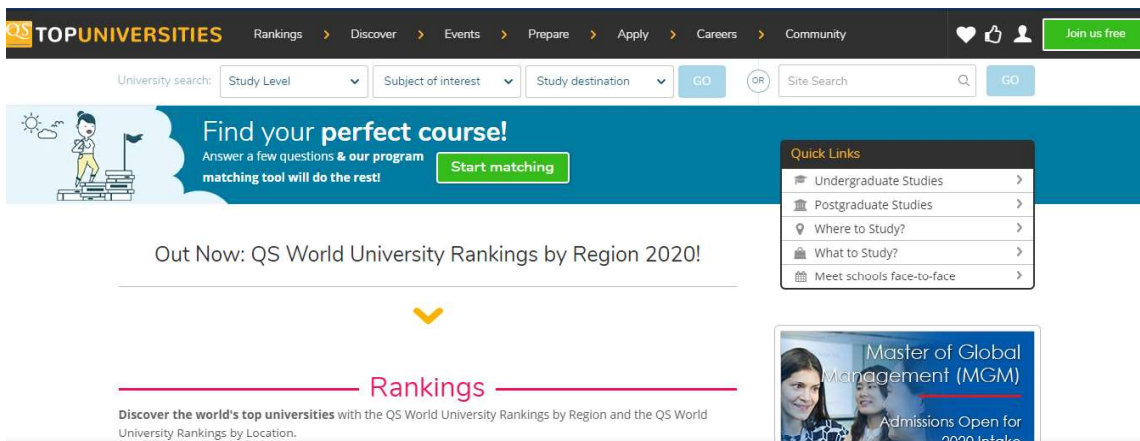


Figure 2.2.3: Top rank university in the world [4]

Here is the list of top rank universities:

The screenshot shows a search interface with filters for 'Study Level', 'Subject of interest', and 'Study destination'. A search bar contains 'University search'. Below the filters, a list of universities is displayed with their logos, names, and locations. The top 7 universities are:

| Rank | University | Location |
|------|--|----------------|
| 1 | Massachusetts Institute of Technology (MIT) | United States |
| 2 | Stanford University | United States |
| 3 | Harvard University | United States |
| 4 | California Institute of Technology (Caltech) | United States |
| 5 | University of Oxford | United Kingdom |
| 6 | University of Cambridge | United Kingdom |
| 7 | ETH Zurich - Swiss Federal Institute of Technology | Switzerland |

Figure 2.2.4: Top rank university in the world [4]

CWUR

This is the another website which informed us top university ranking in the world with some important information[4].

The screenshot shows the CWUR website header with navigation links: 'About', 'World University Rankings', 'Methodology', and 'Media'. Below the header, there are social media icons and a table of top 10 universities.

| World Rank | Institution | Location | National Rank | Quality of Education | Alumni Employment | Quality of Faculty | Research Performance | Score |
|------------|---------------------------------------|----------------|---------------|----------------------|-------------------|--------------------|----------------------|-------|
| 1 | Harvard University | USA | 1 | 2 | 1 | 1 | 1 | 100 |
| 2 | Massachusetts Institute of Technology | USA | 2 | 1 | 10 | 2 | 5 | 96.7 |
| 3 | Stanford University | USA | 3 | 9 | 3 | 3 | 2 | 95.2 |
| 4 | University of Cambridge | United Kingdom | 1 | 4 | 19 | 5 | 11 | 94.1 |
| 5 | University of Oxford | United Kingdom | 2 | 10 | 24 | 10 | 4 | 93.3 |
| 6 | Columbia University | USA | 4 | 13 | 12 | 8 | 12 | 92.6 |
| 7 | Princeton University | USA | 5 | 6 | 14 | 6 | 54 | 92.0 |
| 8 | University of California, Berkeley | USA | 6 | 5 | 40 | 9 | 6 | 91.6 |
| 9 | University of Pennsylvania | USA | 7 | 15 | 8 | 30 | 14 | 91.1 |
| 10 | University of Chicago | USA | 8 | 11 | 18 | 19 | 16 | 90.7 |

Figure 2.2.5: Cwur university ranking website [4]

2.3 Comparative Studies

Similarity:

1. Users can find their desired top rank school by their own location. Top rank schools are showing before than other schools.
2. All the schools are updated with academic result every year, environment, quality, problems, admission fees etc.
3. Users can give feedback and comments in a particular section. Also can rank the quality of the schools. Giving suggestion to improve also included here.
4. Schools are not scattered here. They are categorized in a well result so it is easy to find a good school in different area.
5. Latest information and results are visible to user in an attractive manner. Also new top rank schools are visible.

Dissimilarity:

1. Users can open free account to prompt their rating and feedback. It's very helpful to new user for getting update information fast.
2. The rating and ranking system is updated with artificial intelligence. So that the highest rating of the schools comes forward automatically. It's convenient for someone to distinguish which schools is top rank in this comparative field.
3. The design of the website is completely different from the other existing website. It's more attractive to the users, user friendly, easy to understand and more efficient.

2.4 Scope of the Problem

After discussing the features and comparison studies we understand that some features are similar and some are not. The problems we found which is not to similar to other ranking website and cannot find in these. They are:

- 1.user can open free account to prompt their own rating, suggestion and comment. It's very helpful to new user for find decision about which school is good or bad.
- 2.The rating, ranking system and academic result is updated every year with artificial intelligence. So that, the highest rating of the school and good academic results comes forward automatically. It's convenient for someone to distinguish which school is top in a particular area or all over the Bangladesh.

2.5 Challenges

The challenges is the problem someone is confronted and how they solves that particular problems. The problems we generate, now we have to diminish that problems. The problems are:

- Creating All top rank schools official account sections.
- Implementing artificial intelligence to rank the school automatically based on users uses.
- Implementation of different design, attractive design and add some special features is also a major challenge for us.

If we implement and derive this successfully, we will comfort that we diminish our challenges.

CHAPTER 3

REQUIREMENTS SPECIFICATION

3.1 Business Process Modeling

“When we tend to represent the business processes or workflows of an organization diagrammatically then that graphical representation is called Business Process Modelling”. We implement 2 types of BPM here. From first model we visualize the essential model of the full system. We are able to see the user and system as admin. From this we get the basic idea of this whole business process in a simple manner. Additionally there is workflow and connections from which part is doing their important works. If we see the model user interacts with the system they don't need to open account. But if they want to giving feedback and rating of those top rank school, they have to need opens account, register account, post or delete any updates etc. From this overview we able to summarize the full process in a nutshell.

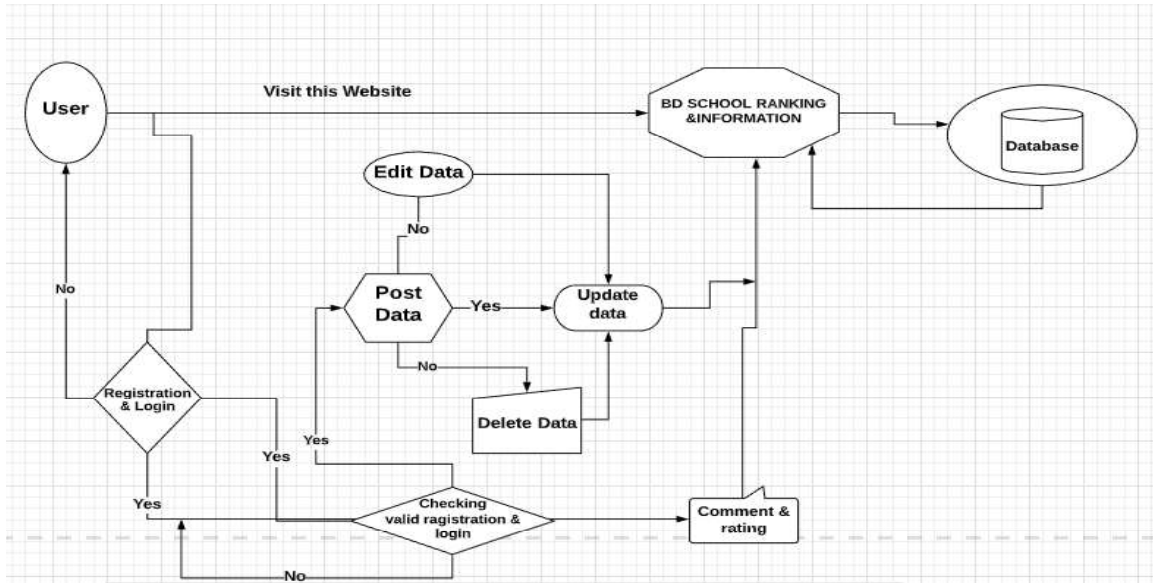


Figure 3.1.1: Business Process Model

The second model is main business process for this project. There are some particular signs and symbols used to implement this business model. In this model we can see there is two lanes: user and admin. Users can visit ranking website, give comments and ratings etc.

Admin has all the access to all the lanes. They can update the database; modify it according to their choice. If user want to giving feedback and rating of those top rank school, they have to need opens account, register themselves, post or delete any updates etc.

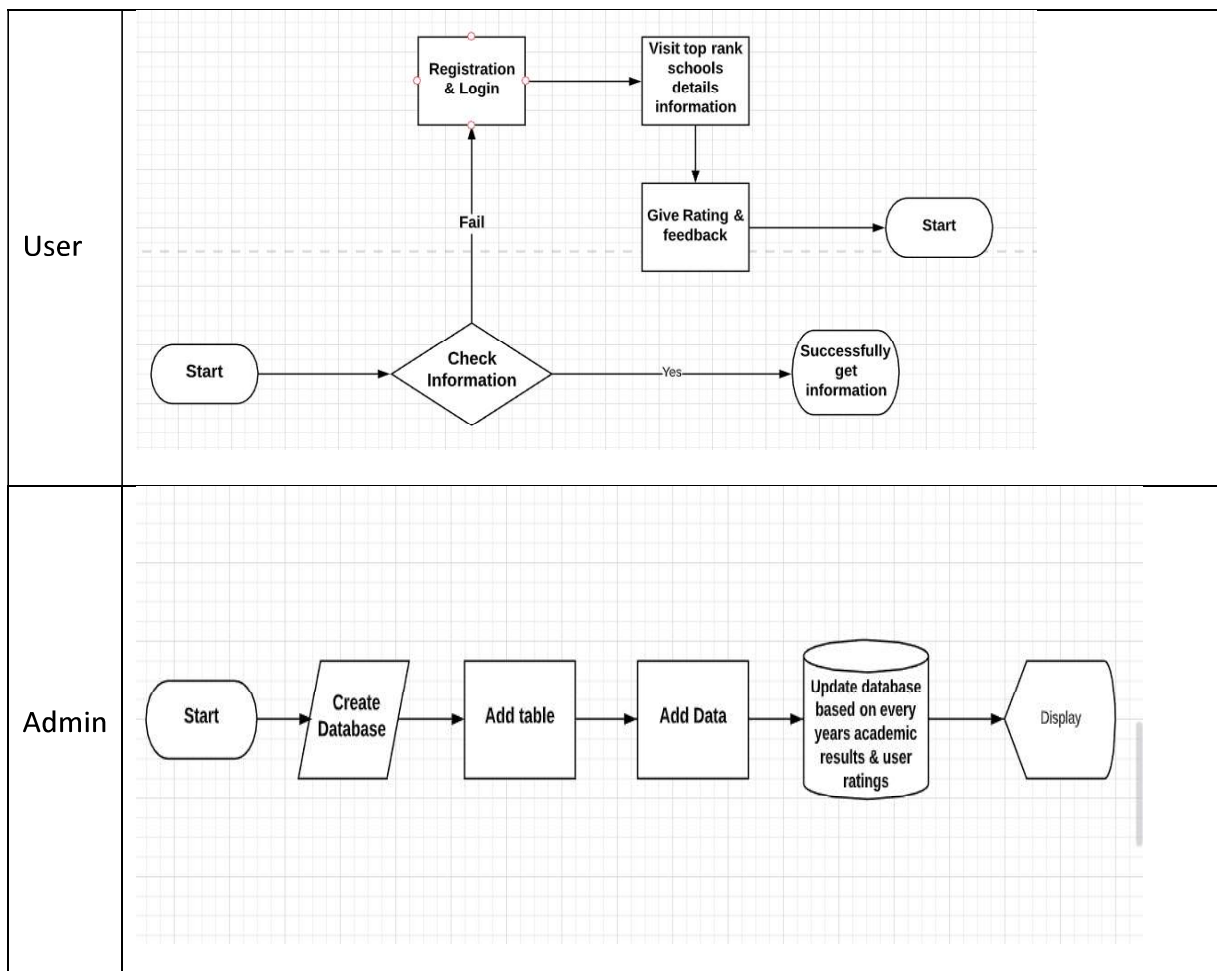


Figure 3.1.2: Business process model

3.2 Requirement Analysis

“Requirement Analysis is a procedure which describes user prospects for a new software to be made or modified. When it is a concern of software engineering, sometimes it is mentioned to loosely by names like requirements collecting or requirements capturing. Requirements analysis includes some tasks which control the necessities or circumstances to meet for a new or changed project. Requirements control the major features of an office information system. There are two types of requirements: Functional and Non-functional. In software engineering, a function of a system, wherever a function is outlined as a specification of behavior between outputs and inputs is named functional requirement. And if a requirement specifies some conditions which may be used to evaluate the operation of a system is called as non-functional requirements”.

3.2.1 Functional Requirement

From the perspective of our project, it had to have some functional requirements such as a registration segment, a login segment where only registered member can access to giving feedback and rating for schools.

3.2.2 Non-functional Requirement

To ensure more effective and optimized performance, non-functional requirements are very helpful. It makes the performance smoother, and quick. Application’s User Interface must be unique and beautiful so that the users can have outstanding experience.

3.3 Use Case Modeling and Description

“A use case is a tactic utilized in system analysis to identify, clarify, and categorize system requirements. The use case is created from a set of possible sequences of interactions between systems and users within an environment and related to a particular goal. The use case ought to contain all system activities that have significance to the users at interval a given system”.

Use cases are used throughout the analysis part of a project to identify system practicality. They separate the system into actors and use cases. Actors represent roles that are contend by users of the system. Users could also be humans, other computers, or may be alternative package systems. In our article, we will examine the importance of Use cases with a facilitate of an easy case study.

Two parts of them are given bellows –

Actor: Actor are something with behavior, like a person, computer system, or organization.

Scenario:

“A scenario is a specific sequence of actions and interactions between actors and therefore the system bellow discussion; it is also referred to as a use case instance. It's one explicit story of using a system, or one path through the use case; as an example, the scenario of successfully using an ATM machine to withdraw cash.”

Importance:

- Holding Functional Requirements in an easy to scan and parsuit format.
- Representing the interaction between an actor and also the system.

In our use case, There two actors: admin, users.

Admin:

- Search for school, academic result, user feedback & rating.
- View school categories and see result & rating of school.
- Get latest update and collection of schools ranking.
- Add and update and delete school table.
- Fetch all data on site and control all menus.
- Add school details and modify it will necessary.

User:

- User registration and login.
- Update profile and delete it.
- Search particular district for getting school ranking & information
- View school categories and see details about school.
- Get latest update and collection of school.
- Get feedback and give comments and rankings.

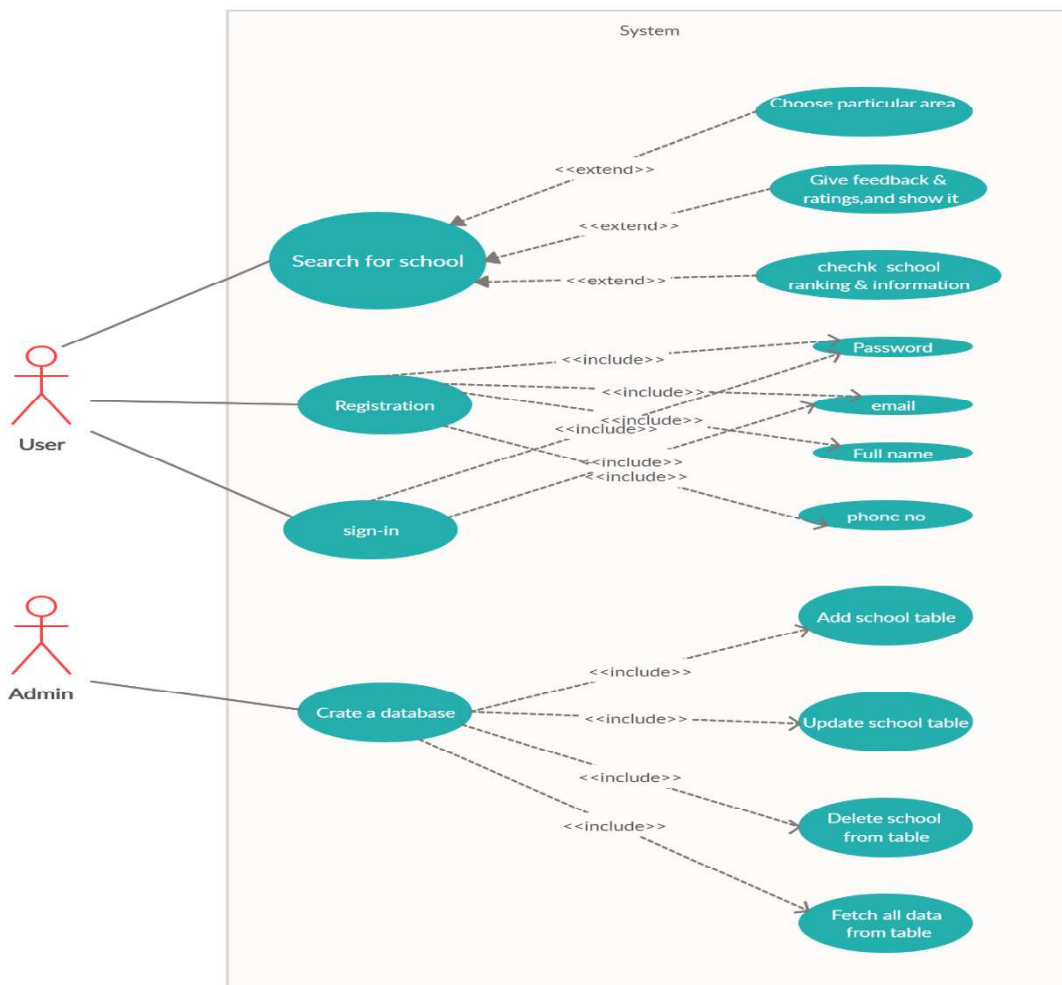


Figure 3.3.1: Use case Diagram

3.4 Logical Data Model

“A logical data model represents the organization of a group of information by standardizing the individuals, places, things (entities) and therefore the rules and relationships between them using a standard language and notation”.

It provides an abstract summary of the structure of the information. Logical data modeling doesn't give any info associated with however the structure is to be enforced or the means that are needed to measure the information structure shown. It is a technology-independent model of knowledge that's developed from the initial structures known by the logical data model.

There are Some of the vital information presented by a logical data model. These are:

1.Entities 2. Key terms (primary keys, foreign keys) 3. Relationships 4. Attributes of entities 5. Normalization

In our web site we can see that there are roughly seven entities. They are: Schools, Users, area, and School info, Collection of schools, category and feedback.

Every different entity has its own characteristics. This is called attributes. Let's think about the User entity. It has unique ID, Mail Id, and Password. Also have name, address etc. It can add, update and delete within the system.

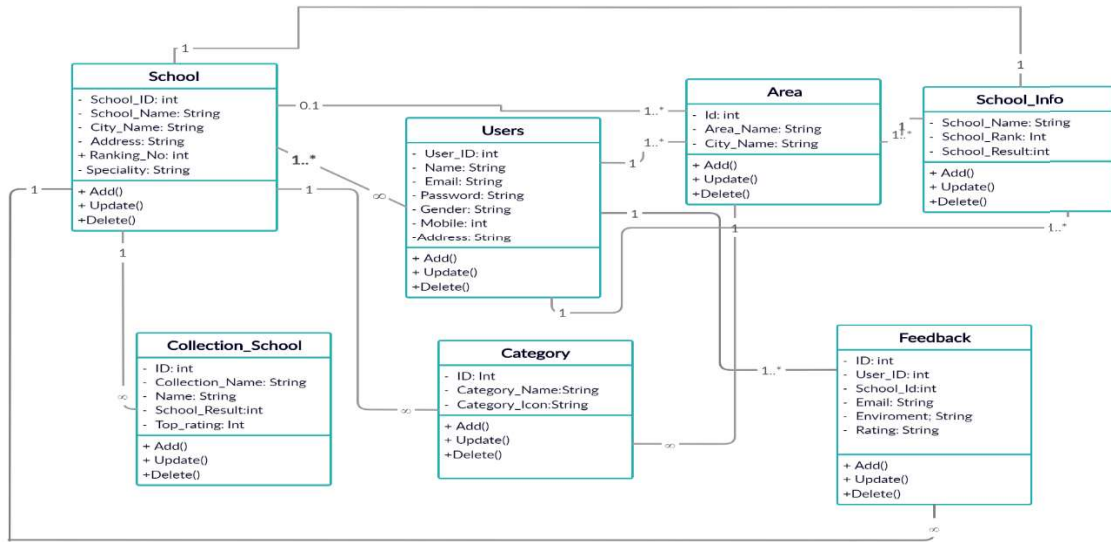


Figure 3.3.2: UML Diagram

3.4 Design Requirements

The design specification is one of the most important part of a web-application. This is the key factor between the project among other current web base applications. This section makes an application different from others application. It makes an application unique and well furnished. We focused on better user experience while creating and developing our project.

- We designed a registration site for our website, so that users can be registered to our website after giving their information.
- We designed a login site which is needed to giving their feedback & rating .
- We also designed a navigation bar from which a user can choose his/her desired option.
- We also designed some segments to keep different kinds of school’s information from which the information will be shown to the users.
- We also designed a logout button so that the users can sign out from the website after given schools rating & feedback.

- We used HTML, CSS, and JavaScript to design our website. These are the common building block of any website. These are also work as skeleton of website. The website becomes unformatted and a plain text without this. we cannot add any image to the website without this.
- We used JavaScript to do interactive elements. It also helped us:
 - 1.for Navigating the website and doing real time action with matter of time
 - 2.for making the interface easy to reload, and add versatile and
 3. Making more functionality to the website.
- We also used Bootstrap which understood as design framework and that we know that it's a free and open-source front-end framework for designing and planning websites and web applications. Bootstrap also contains HTML- and CSS-based design templates for typography, forms, buttons, navigation and different interface parts, as well as optional JavaScript extensions.

CHAPTER 4

DESIGN ANALYSIS

We accomplish the front end design and back end design to our project in various ways. During this section we have demonstrated every and each a part of the look and codes square measure mentioned totally. At the end of the discussion we have a tendency to implement the database table.

4.1 Design of the Front-End

While web design is that the manner a website looks, front end development is however that design really gets enforced on the web. The visible part to the user is thought as front design. The more attractive front design is more acceptable to the users and others. To design the front end there's some specific language and frame is employed. we have used hypertext markup language, CSS, and JavaScript to style our web site. [1]

We had to be very careful and inventive while designing and building the front end design and Graphical User Interface (GUI) of our website. Because building up the front end and GUI upfront and comprehensible plays a awfully abundant very important role. a optimize front end design can fulfill the users' demands and may give a higher user expertise. That's why we tend to tried very hard to retain our front end design as simple as we could when developing our website. For this the users can use the website easily and comfortably. We will be showing the front end design of our website from currently on:



Figure 4.1.1: Home page

This is the homepage of our website. You will see the Top 20 bar where you can find the top 20 School's & information in Bangladesh. You will see some another navigation bar such as About us, Rating, E-book, admission etc.



Login

Username

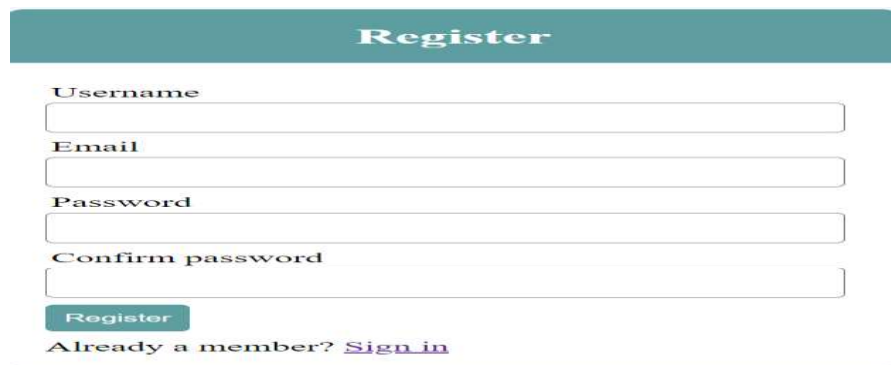
Password

Login

Not yet a member? [Sign up](#)

Figure 4.1.2 Shows the log-in page of our website

This is our websites login page. User has got to sign in for the login page by giving their email id and password. If you don't have your account, you'll produce new account and so you'll login.



Register

Username

Email

Password

Confirm password

Register

Already a member? [Sign in](#)

Figure 4.1.3 Shows the register page of our website

School Rating Analyzer

Search Your School Here

| Search | | Dhanmond | | | | |
|----------|----------|-----------|--------|---|-----------------------------|----------------------------------|
| DIVISION | DISTRICT | THANA | Rating | INSTITUTE_NAME | LOCATION | PHONE |
| DHAKA | DHAKA | DHANMONDI | 176 | COLLEGE OF DEVELOPMENT ALTERNATIVE (CODA) | HOUSE-23, ROAD-14/A(NEW) | Rate |
| DHAKA | DHAKA | DHANMONDI | 177 | GOVT. LABORATORY HIGH SCHOOL AND COLLEGE | 4/E COLLEGE AREA NAYEM ROAD | 01556334383 Rate |
| DHAKA | DHAKA | DHANMONDI | 178 | JARINA SIKDER GIRLS SCHOOL AND COLLEGE | 295/A DHALI OFFICE ROAD | 1552344147 Rate |
| DHAKA | DHAKA | DHANMONDI | 179 | JUST INTERNATIONAL SCHOOL & COLLEGE | 5-5/A | 01727118553 Rate |
| DHAKA | DHAKA | DHANMONDI | 180 | MEHERUNNISA GIRLS SCHOOL & COLLEGE | NEWMARKET | 8629082 Rate |
| DHAKA | DHAKA | DHANMONDI | 181 | Y. W. C. A HIGHER SECONDARY GIRLS SCHOOL | 11 GREN SQUARE | 01712076541 Rate |

Figure 4.1.4 Shows top school in Bangladesh

Here the collection of all top rank school's are to be displayed. Different types of categories such as Top school in Bangladesh, top school's in every district separately are added here. If you click the segment of this category, then all the top rank school's will be shown up in different location.

Here are the Top 20 Schools in Bangladesh

«
1
2
3
4
5
»

1. Viqarunnisa Noon School and College, Dhaka



- Address: 1/A, New Baily Road, Dhaka- 1000.
- Phone: 02-56310500
- Email: vnsc_bd@yahoo.com, vnsc.edu@gmail.com.
- Website: www.vnsc.edu.bd
- Branch: Baily Road, Azimpur, Dhanmondi, Bashundhara.
- Online Application Will Start: 31st August 2019
- Online Application Will End: 18th September 2019
- Date of Admission Test: 11th October 2019 [Friday 10:00 am to 11:00 pm]
- Admission Result: 13th October 2019
- Number of Available Seats: 3,818

--> [Read More ...](#)

2. Government Laboratory High School, Dhaka

Ebook

- Text Book class(1-9)
- Humayun Ahmed
- Story Book

Follow Us On Facebook

School Rating Analyzer

Liked 2 likes

You and 1 other friend likes this

5. Dhaka Residential Model College, Dhaka



- Address: Mirpur Road Mohammadpur, Dhaka 1207.
- Phone: 02-8118834,
- Fax: 9129917
- Website: <http://www.drmc.edu.bd/>
- Online Application Will Start: 31st August 2019
- Online Application Will End: 18th September 2019
- Admit Card Collect Date: 29th September to 3rd October 2019
- Date of Admission Test: 11th October 2019 [Friday 10:00 am to 11:00 pm]
- Admission Result: 13th October 2019
- Number of Available Seats: 3,818

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6. Holy Cross Girls' High School, Dhaka



- Address: Farmgate, Tejgaon, Dhaka – 1215.
- Contact No: E-mail: info@hccaa.net
- Website: <http://hccbd.com>
- Online Application Will Start: 31st August 2019
- Online Application Will End: 18th September 2019
- Admit Card Collect Date: 29th September to 3rd October 2019
- Date of Admission Test: 11th October 2019 [Friday 10:00 am to 11:00 pm]
- Admission Result: 13th October 2019
- Number of Available Seats: 3,818

[--> Read More ...](#)

17. Scholastica School



- Address: N/A
- Telephone: 8960147
- Fax: 8813141
- Email: info@scholasticabd.com
- Web: <http://www.scholasticabd.com/>
- Online Application Will Start: 31st August 2019
- Online Application Will End: 18th September 2019

[--> Read More ...](#)

18. Sylhet Government Pilot High School



- Address: Dakbanglow Rd, Sylhet
- Phone: 0821-716382
- Web: www.sylgovpilotshs.edu.bd
- Online Application Will Start: 31st August 2019
- Online Application Will End: 18th September 2019
- Date of Admission Test: 11th October 2019 [Friday 10:00 am to 11:00 pm]
- Admission Result: 13th October 2019
- Number of Available Seats: 3,818

[--> Read More ...](#)

Figure 4.1.6 Shows top school in Bangladesh

In featured category the most famous and popular and top 20 school in Bangladesh will be displayed based on their academic result & user rating.

1
School Rating Analyzer
LOGIN REGISTER


HOME ABOUT US TOP 20 RATING E-BOOKS ADMISSION

Welcome to the Site of School Rating Analyzer

In our project we provide top 20 schools in Bangladesh and top 10 schools in every district in Bangladesh by their academic result and General peoples ratings. We will also take general peoples feedback and ratings about that school .The school is good/bad that also depends on general people ratings. So their ratings plays a vital role for every schools for reaching top ranking. We also provide proper information about that top class schools.

Large number of people in our country could not understand which school is good, which schools academic result is good what kinds of problem occurs of that school and they have not proper information about many school in Bangladesh. In this reason they are much depressed and can not take proper decision that which school is perfect for their children. So thinking about that problem we would motivated and we want to create an web application which name is "BD SCHOOL RANKING & INFORMATION ANALYSIS SYSTEM(BSRIAS)" that provide us what are the top 20 school in Bangladesh and what are the top 10 schools in every district in Bangladesh separately and also that contains proper information of all the schools in Bangladesh.

By our project all the people in Bangladesh will understand about Top rank school in Bangladesh and they can take proper decision that which school is perfect for their children and also understand about proper information of that top rank schools.



CONTACT US
QUICK LINK
OUR SERVICES
GET IN TOUCH

Figure 4.1.7 About page

Give Your Feedback For This School

Rate The School

★ ★ ★ ★ ★

Title*

Comment*

Save Review Cancel

- No Image
By User
Sep 21, 2019
★ ★ ★ ★ ★
new
sdrghjki
- No Image
By User
Sep 21, 2019
★ ★ ★ ★ ★
dafd
dtrcyvbhjnkmk
- No Image
By User
Sep 21, 2019
★ ★ ★ ★ ★
abr
hg
- No Image
By User
Sep 21, 2019
★ ★ ★ ★ ★
valo na
jhgh

Figure 4.1.8 Shows Rating & feedback section for user

This is the side where user can give feedback and rating for top rank school, General user can see that.

Give Your Feedback For This School

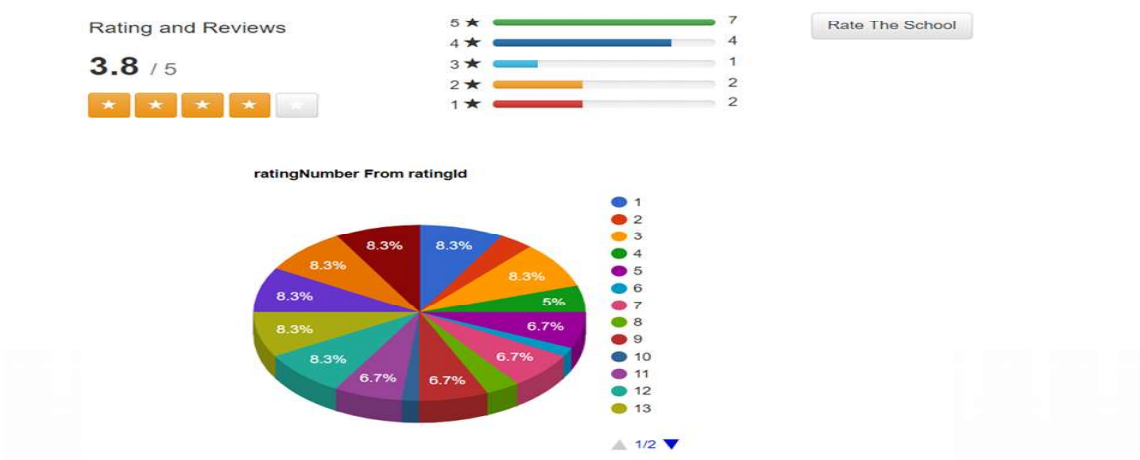


Figure 4.1.9 Shows overall pie-chart for top rank school



Figure 4.1.10: NCTB E-Books

Here is the lists of the entire Books are displayed here. Here you can also see the rating of this restaurant such as if the restaurant quality is high then it will appear first.

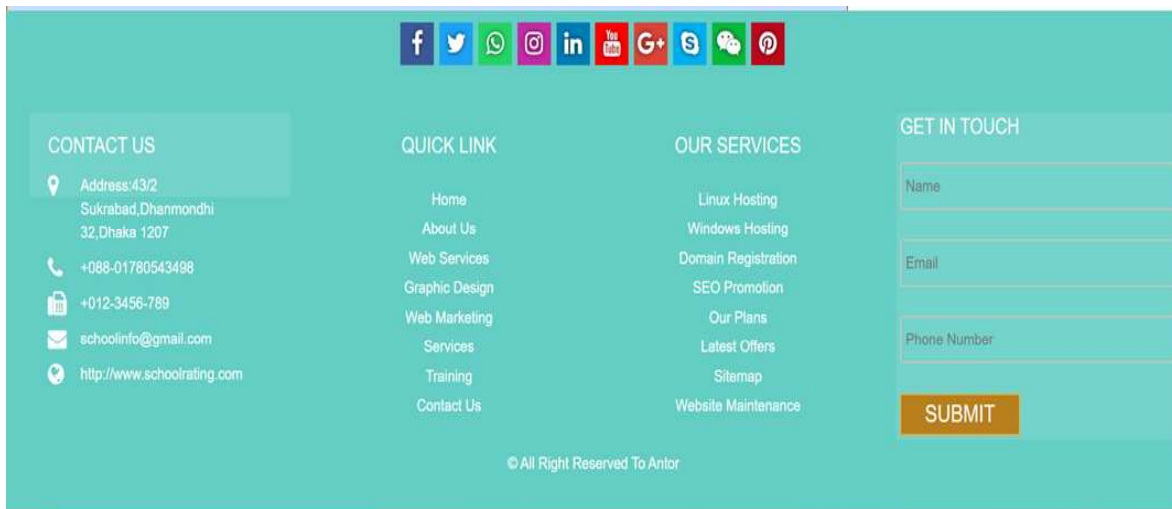


Figure 4.1.11: Footer Page

4.2 Design of the Back-End

We know that, the backend usually consists of 3 parts: first part is a server, second is an application, and third is a database. We get the information and data from front end and implement it through application or software. When obtaining the information, we tend to store that in database and run by server. The total coding for this implementation, run and store is though as back end design. For coding we used HTML, CSS, JavaScript and php.

Software:

Sublime text, notepad++: These two software provides us to support for many languages as (PHP, JavaScript, etc.) and frameworks.

Server:

Apache, XAMPP: An application that permits you to setup an online server and database server instantly with none extra configuration.

Database:

MySQL: Oracle-backed open supply online database management system based on Structured Query Language (SQL).

Language:

PHP: We know that, a server side scripting language that is used to develop Static websites or Dynamic websites or Web applications. It is very simple for a newcomer, however offers several advanced option for an expert programmer.

Database connection:

```

<?php
$connect = mysqli_connect("localhost", "root", "", "user");
$output = '';
if(isset($_POST["query"]))
{
    $search = mysqli_real_escape_string($connect, $_POST["query"]);
    $query = "
SELECT * FROM mytable
WHERE DIVISION_NAME LIKE '%" . $search . "%'
OR DISTRICT_NAME LIKE '%" . $search . "%'
OR THANA_NAME LIKE '%" . $search . "%'
OR INSTITUTE_NAME_NEW LIKE '%" . $search . "%'
OR LOCATION LIKE '%" . $search . "%'
OR MOBPHONE LIKE '%" . $search . "%'
";
}
else
{
    $query = "
SELECT * FROM mytable ORDER BY id";
}
}

```

Figure 4.2.1 Code for database connection

From this section database is connected by the whole system.

```

7
8 ~ if(isset($_POST['login'])){
9
10 ~ try {
11
12     $email= $_POST['email'];
13     $password=md5($_POST['password']);
14
15     $query="SELECT * FROM register WHERE email='".$email' AND password='".$password'";
16     $fire = mysqli_query($con,$query) or die("Can not insert data into database. ".mysqli_error($con));
17
18 ~ if(mysqli_num_rows($fire)>0) {
19
20 ~     session_start();
21     $_SESSION['name']="feedback";
22     header('location:index.html');
23 ~ }
24
25 ~ else {
26     throw new Exception ('Your information is not correct');
27 }
28
29 }
30
31 catch(Exception $e) {

```

Figure 4.2.2: Login code 01

4.3 Requirements for Implementation

A database connection allows you to access database data sources. With a database connection, you will be able to browse data from database tables, perform SQL queries or insert records into database tables. These actions are taken by the elements using a database connection. The visible part to the user is known as front design. The lot of engaging front design is more acceptable to the users and others. To design the front end there are some specific languages and frameworks used.

We used HTML, CSS, and JavaScript to design this website. The backend generally consists of 3 parts: a server, an application, and a database. We tend to get the information and data from front end and implement it through application or software. once obtaining the information we store that in database and pass by server. The entire coding for this implementation, run and store is though as back end design. For coding we used HTML, CSS, JavaScript and php.

CHAPTER 5

IMPLEMENTATION AND TESTING

5.1 Implementation of Database

A database connection permits you to access database information sources. With a database connection, you will browse data from database tables perform SQL queries or insert records into database tables. These actions are taken by the elements using a database connection.

There are many steps to make a database:

- Define Scope of the Database for the website
- Perform Training
- Select Database Management System tools.
- Develop Initial Implementation Plan, Schedule and update info
- Design Database
- Proper Organize Database Project
- Install and Test Database properly
- Develop Detailed Conversion Plan
- Convert Existing Applications for project
- Periodically Review Database Performance for website.

After finishing the database we get some database tables. Every database table provide us its own identity. Here each table has column name, its type, attributes, and default value.

The tables are shown below and also the names of the tables also are attached.

Table 5.1.1: Database mytable

| Column | Type | Attributes | Null | Default |
|--------------------|-------------|------------|------|----------------|
| id | int(11) | | No | auto_increment |
| DIVISION_NAME | int(11) | | No | |
| DISTRICT_NAME | varchar(40) | | No | |
| THANA_NAME | varchar(40) | | No | |
| EIIN | int(11) | | No | |
| INSTITUTE_NAME_NEW | varchar(40) | | No | |
| POST_OFFICE | varchar(40) | | No | |
| LOCATION | varchar(40) | | No | |
| MOBPHONE | varchar(40) | | No | |

Table 5.1.2: Database school_rating

| Column | Type | Attributes | Null | Default |
|--------------|--------------|------------|------|----------------|
| ratingid | int(11) | | No | auto_increment |
| itemid | int(11) | | No | |
| Userid | int(100) | | No | |
| ratingNumber | int(100) | | No | |
| title | varchar(300) | | No | |
| comments | text | | No | |
| created | datetime | | No | |
| modified | datetime | | No | |
| ststus | Tinyint(1) | | No | |

Table 5.1.3: Database users

| Column | Type | Attributes | Null | Default |
|----------|-------------|------------|------|----------------|
| id | int(11) | | No | auto_increment |
| username | varchar(40) | | No | |
| email | varchar(40) | | No | |
| password | varchar(40) | | No | |

5.2 Front-End Design Implementation

While web design is the method a website looks, front end development is how that design really gets enforced on the web. The visible half to the user is known as front design. The more attractive front design is a lot of acceptable to the users and others.

To design the front end there's some specific language and frame is employed. We used HTML, CSS, and JavaScript to style this website.

HTML(Hyper Text Markup Language) and CSS(Cascading Style Sheets) these are the common building block of any website. It's conjointly work as skeleton of website. Without this the website becomes unformatted and a plain texts. Images couldn't add to the website without these.[3]

- We used HTML, CSS, and JavaScript to design our website. These are the common building block of any website. These are also work as skeleton of website. The website becomes unformatted and a plain text without this. we cannot add any image to the website without this.
- We used JavaScript to do interactive elements. It also helped us:

1. For Navigating the website and doing real time action with matter of time

2. For making the interface easy to reload, and add versatile and

- We also used Bootstrap which understood as design framework and that we know that it's a free and open-source front-end framework for designing and planning websites and web applications. Bootstrap also contains HTML- and CSS-based design templates for typography, forms, buttons, navigation and different interface parts, as well as optional JavaScript extensions.

Demo:



Figure 5.2.1 Shows demo of homepage

5.3 Interactions Implementation

It's very important however and website interacts with its users. If the users will communicate with the website easily it helps the website to be famous. If they will act with the website comfortably and satisfied with this website then it may be said that the system is successful to fulfill its purpose. That's why it is most important to make a system interactive with the users. [2]

We have implemented our website system with quickly reactive UI. It will make sure of higher user experience. We used some useful icons, text view, button etc. For its understandable and beautiful UI the users can be able to communicate with the website easily.

We also used jQuery for our website.

5.4 Testing Implementation

- We ran some initial tests on our project. The result and discussion over it's given below-
- We used black box testing for our project. It had been a primary approach and everything the tests passed through has have a close look to any or all the tests from registration to log out.
- For testing 'registration' we inputted mail address that was taken and stored in the database beside the password token, Also the password matching choice with the "confirm password" was passed.
- For testing the login option we inputted the proper e-mail and password that were already provided throughout registration. The system was ready to match the accurate e-mail and password with database and gave access to the system.
- In our system, for creating post a template is also given. That works perfectly when a blogger access this option? We also crated a text editor called "WYSIWYG" to write the blog. Each part during this editor like bold, italic, font changing, header, footer etc. works accurately.
- We tested to transfer .jpg and .png format image to attach in our blog post that passed the test. Once clicking on upload image button, the browser opens to pick photo to attach.
- There are bunch of tags like School, Academic result, environment etc. which might be included with the posts to make it simple to find out. We tried to incorporated this tag in our posts and it worked. also we were able to create, edit and delete these

tags. We also added rating site that's why users can give rating on any top rank school.

- After storing the posts into database, we tested if we could retrieve the posts from database and show into the blog. The test worked accurately.
- There will be many sorts of writing in our blog. Therefore to manage these posts in an exceedingly categorized method there is this option “Category”. Just like Tags, we could manage to keep a post in any category. We were ready to create, edit, delete category.
- We successfully could edit any post. When edition, the post was ready to update and vies within the database perfectly.
- To delete a post there's also a dedicate button “Delete” to from the operation. We viewed any random posts in our blog and clicked on the “Delete” button and therefore the post was fully erased from the blog. Also the post got deleted from the database. Therefore, this test passed with a success.
- The “Blogs” tab is to indicate recently created posts. The last created post ought to seem first, previously created post ought to seem in second position then on. After we clicked on the “Blogs” tab the posts were showed because it ought to be.
- We already apprehend there is also a comment option to share opinions of the users to any posts. To test this feature, we inputted the mail address, name, body of the comment and post the comment during a blog post. And it worked accurately.
- In our system a “Contact” template is given to from contacts with the blogger. We tested the contact system by inputting the correct e-mail address, subject of the mail, body of the mail and send it to the blogger. Each element of this contact template worked correctly.

- After finishing all task we proceed to the logout button to get out of the system. When clicking on the “Log out” button we successfully could logged out from this section.

CHAPTER 6

CONCLUSION AND FUTURE WORKS

6.1 Discussion and Conclusion

“Region-Wise School Ranking Through Information Analysis” is a website where a user gets all sorts of information about top rank School & Top 20 school in Bangladesh and top 10 school in separately every district.

In our website “Region-Wise School Ranking Through Information Analysis” there are some sorted features such as school category, school ranking, and school location. All the top rank school's list of that category and Every year's academic result, Important information, quality, Address and environment are updated. There is also a site for giving ratings and feedback. For giving school's ratings and feedback users must need to create an account by giving their e-mail and password and after that they have to sign in using their account.

This website and application runs on Open Source software, this website is written in PHP and therefore the desktop application is written in JAVA uses MySQL because the database manager.

We have a platform wherever we are able to get similar types of schools based on their academic result and user ratings in keeping with best to worst in a particular district. So that it is easier for a user to find a top school in a convenient place and also he can estimate the quality or remark the similarity and dissimilarity between them.

A user can get information about the school's ranking, results, user's rating, environment, address, problems and quality etc. before visiting a specific school. Also after visiting any school a user is eligible to provide his/her feedback, ratings, share expertise and most vital delegate rank for that school. So that if a school is in 1'st position, after measuring that rating and feedback it may send that school to lower position.

So that it will help to take a proper decision among a user about which schools is suitable for their child.

6.2 Future Works

In our website “Bd school ranking & information analyzer”, there are some sorted features such as school category, school ranking, and school location. All the top rank school's list of that category and Every year’s academic result, Important information, quality, Address and environment are updated. There is also a site for giving ratings and feedback. For giving school's ratings and feedback users must need to create an account by giving their e-mail and password and after that they have to sign in using their account.

6.3 Limitations

But we have some limitations in this project. In this we only worked for School ranking & information, there is no ranking system for college/University. So in future we have a plan for adding college/university ranking & information Section. Thus user will also get the ranking & information regarding college/University.

The website will improve and provide higher performance by more uses of the user. If the user's provide review and ratings in daily basis then it’s possible to get more perfect output information from this website. Because more uses and more feed backs allow to provide more correct information.

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Lahiri_Bd school ranking & information analyzer report

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|------------------|------------------|--------------|----------------|
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