

PROFESSION HUNTER: AN ONLINE CAREER GUIDANCE SYSTEM

BY

NAZMUL HAQUE

ID: 172-15-9934

AND

ASMAULL-HUSNA

ID: 173-15-10312

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

Supervised By

Fahmida Afrin

Lecturer

Department of CSE

Daffodil International University

Co-Supervised By

Zerin Nasrin Tumpa

Lecturer

Department of CSE

Daffodil International University



DAFFODIL INTERNATIONAL UNIVERSITY


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APPROVAL

This Project/internship titled “PROFESSION HUNTER: An online career guidance system”, submitted by “Nazmul Haque” and “Asmaull-Husna” 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 8 October 2020.

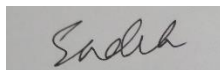
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Department of Computer Science and Engineering
Faculty of Science & Information Technology
Daffodil International University

Internal Examiner



Dr. Md. Saddam Hossain
Assistant Professor

Department of Computer Science and Engineering
United International University

External Examiner

DECLARATION

We hereby declare that, this project has been done by us under the supervision of **Fahmida Afrin, Lecturer, Department of CSE, Daffodil International University**. We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

Supervised by:

Fahmida

Fahmida Afrin

Lecturer

Department of CSE

Daffodil International University

Co-Supervised by:

Zerin Nasrin Tumpa

Zerin Nasrin Tumpa

Lecturer

Department of CSE

Daffodil International University

Submitted by:

Nazmul Haque

Nazmul Haque

ID: -172-15-9934

Department of CSE

Daffodil International University

Asmaull-Husna

Asmaull-Husna

ID: -173-15-10312

Department of CSE

Daffodil International University

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ABSTRACT

Career guidance is a challenging domain in the world. If higher education is the bridge of a career, then the beginning of that career is through the selection of a department. For solving career related problem in different level, different countries follow different strategies. Since there is no such digitalized guidance system in our country .Especially for our mentioned user groups & most of the people in our country are weak in English, so we take this project as a challenge & developed it for Bangla spoken users in Bangladesh. This is a career-based online student's guidance application where school students can find out more about planning for their future careers. In our country after 8th-grade students suffer from the decision-making problem about the groups between science, arts & commerce what are best for him. On the other hand, the 12th-grade students suffer from decision making that they cannot understand which department or domain is best for him. This project will provide various services such as career-assessment test tools for our mentioned user group, discussion forums, course directories, directories of educational institutions, various e-books on careers, information on different types of careers and courses. By joining the forum, students will be able to share barriers to their careers, find solutions, verify themselves using testing tools to know themselves, learn about educational institutions scattered in different places & learn about departments and courses at different educational institutions.

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CHAPTER 1

Introduction

1.1 Introduction

In today's competitive world the selection of the right career path or academics is a big challenge. The main purpose of career thinking is to benefit humankind along with personal success by exploiting the innate potential of the brain. Educational and Career Guidance is not a simple task as it sounds; it is a complicated thing that depends upon many factors and aspects. People think more and more that after sometimes they are not able to decide even not able to get what they want to do for their life and in the end, they end with nothing and fell into wrong hands and things, which made any country the sounding alert. Moreover, in professional life, it has seen that many of them are working on something beyond their choice. Therefore, they do not give good productive results & subsequently, it has a bad effect on the economy in our country. There are some career guidance systems for students of different levels in different countries of the world. But there is no such guidance system in our country, especially for students from eighth grade to undergraduate. So our project of career guidance system will develop for a certain group of Bengali speaking users in Bangladesh where students will get guidelines on how to prepare for their future careers. In our guidance system, it has career testers as tools, will provide various services such as discussion forums, course directories, directories of educational institutions, various e-books on careers, information on different types of careers and courses.

1.2 Motivation

Generally, the seeds of a future career are formed in the period from eighth grade to undergraduate. In our country, after passing the eighth grade in the general education system, students have to choose one of the divisions in science, arts, commerce. Then the students do not understand which division they will go to and so they start running. On the other hand, after 12th grade in the general education system, the family members have decided most of the domain for career Selection. Sometimes for their career guidance, they rush to the beloved elders get to know about the department that will be best for their career.

Because of that, a student suffers from decision-making. They fell into depression and mental health problems. They waste their valuable time. Moreover, Some Are become unemployed after the undergraduate level because of not undergrad on the demandable subject based on the job market. Some of them do jobs in domains outside of their interests. Therefore, if these students find the right guideline for the department, topic choice, career formation then the harassment, unemployment problems, financial loss in our country will reduce. Therefore, through this project, we will try to give these students proper guidance, which will help them to build a successful future career.

1.3 Objective

Design and build a working prototype of a guidance system that will help students of our country to choose their future careers.

1. To Guide the students of different levels such as junior secondary, Secondary & higher secondary level for choosing their right career path by their self-assessment test.
2. To help junior to higher secondary level students about their courses and future career-related questions by using discussion forum.
3. To solve various kinds of career-related problems.
4. To give direction by using institutions & course directory.
5. To give up-to-date information about demandable topics.
6. To give information about the job sectors.

1.4 Expected outcome

The traditional approach to career guidance is a manual method that is Incompetent and inefficient. The electronic approach provides effective and efficient career guidance & reduces the waste of time. In this project, we will develop a web-based career guidance system that assists the students in Bangladesh to choose a career path independently at anytime, anywhere with the use of the computer system as applicants seek admission into various fields of study in Bangladesh or abroad. We develop this application for those students who are not able to decide their future studies and career. We will get an effective system & this is the easiest way to find a better career for the students in Bangladesh who

are confused. Moreover, by developing this project in the future we expect this system will reduce the unemployment problem in our country & could make a great impact on our economical & social life.

1.5 Report Layout

Chapter 1: Introduction:

In this chapter, we will discuss the Introduction, goals, encouragement and expected outcomes of our project.

Chapter 2: Background study:

Chapter 2 covers Introduction Preliminaries, related works such as our web application, comparative analysis, the scope of the problem and the difficulties we face in implementing this web application.

Chapter 3: Requirement specification:

Requirement specifications such as business process modeling, requirement analysis and modeling, logical data model and design criteria will be discussed in chapter 3.

Chapter 4: Design specification:

Chapter 4 covers front-end design, back-end design, interaction design and UX and implementation specifications, which will be defined briefly in this section.

Chapter 5: Implementation and testing:

The implementation of the database, front-end design implementation, implementation of testing and test results and reports will be covered in Chapter 5.

Chapter 6: Impact on society, Ethical Aspects & sustainability:

The topics mentioned in Chapter 6 are the effect of our project on our community and the environment, the ethical implications and a brief overview of the sustainability plan.

Chapter 7: Conclusion and future scope:

The conclusion and the future scope for further development of our project are the subjects to be defined in chapter 7.

CHAPTER 2

Background study

2.1 Introduction

Due to the fast development of the society, students require a guidance system to empower them to select an appropriate career. This is a web-based Career Guidance System where students can see various career opportunities. This web application provides some services & tools to a user. A user can use career tester tools of this application that shows various fields available after junior level for selection between science, arts, commerce & after higher secondary level for the future career. The system allows users to give a self-assessment test for the future career based on interest. Mainly it is a series of tests of various general questions. After test completion, a probability score has calculated for each test & recommended some best possible section & careers for that user. This web application has also courses & institutions directories of Bangladesh based on divisions, discussion forum and e-book sections. Therefore, by using these tools & services a user could know the opportunities, description, available jobs & future path selection based on it for their future career.

2.2 Related Works

Different countries have different applications on career guidance systems. Some application systems are:

- a) Afterschool Advisor: It is a Malaysian career based web application where a Malaysian student could find details about his interest-based domains to choose a career with available universities or colleges in Malaysia [6].
- b) Goal Line Careers: Goal Line Careers is a career-based New Zealand platform that creates, authors and markets career educational services used in many New Zealand schools [7].

2.3 Comparative Studies

Afterschool advisor web application is developed for Malaysian students only where they could find the available opportunities & jobs according to their interested domain which available in Malaysia [6]. Goal Line Careers is New Zealand's career-based platform that creates, authors, and markets career education services used in many schools in New Zealand [7].

Our project is different from these career-based applications According to our study, in our country; we have not any online-based career guidance system especially for 8th grade to the 12th-grade student. Therefore, we can said, this is new project for our country. In our project, we will develop a web application where a Bangladeshi student could attend a self-assessment test in Bangla, after generating he could find his most suitable domains based on their interests. After that, he also could know the description of these domains with various future opportunities. Moreover, this specific user group has many questions about their future. Since this time is the seed of their future career, so we keep a discussion forum in this project where they can do questions to get best solution.

2.4 Scope of the problem

A student must have a computer or mobile with an Internet connection for this project, because this is a web-based guidance system. The career database in our country is not available to the public .So this is also a great problem for the implementation of this project.

2.5 Challenges

There could find some several challenges for implementing this project:

1. The student assessment score may not be good but a student could achieve his desire goal only based on his passion, honesty & sincerity.
2. It is an easy system to select domain but the difficulty is for choosing branches of every domain. e.g., .engineering domain has various branches.
3. An internet connection must have to be available during the assessment test.
4. Database collection is not an easy task. Especially due to epidemic reason. Because the schools & are colleges are closed in our country.

CHAPTER 3

Requirement specification

3.1 Business Process Modeling

BPM or Business Process Modeling is a process for the design of a system or process structural view. It contains some method, a start, some symbol, some state like a data flow diagram. We are constructing a BPM model in our project, which shows users & admin processes in this application system.

Figure 3.1 demonstrates the business process modeling.

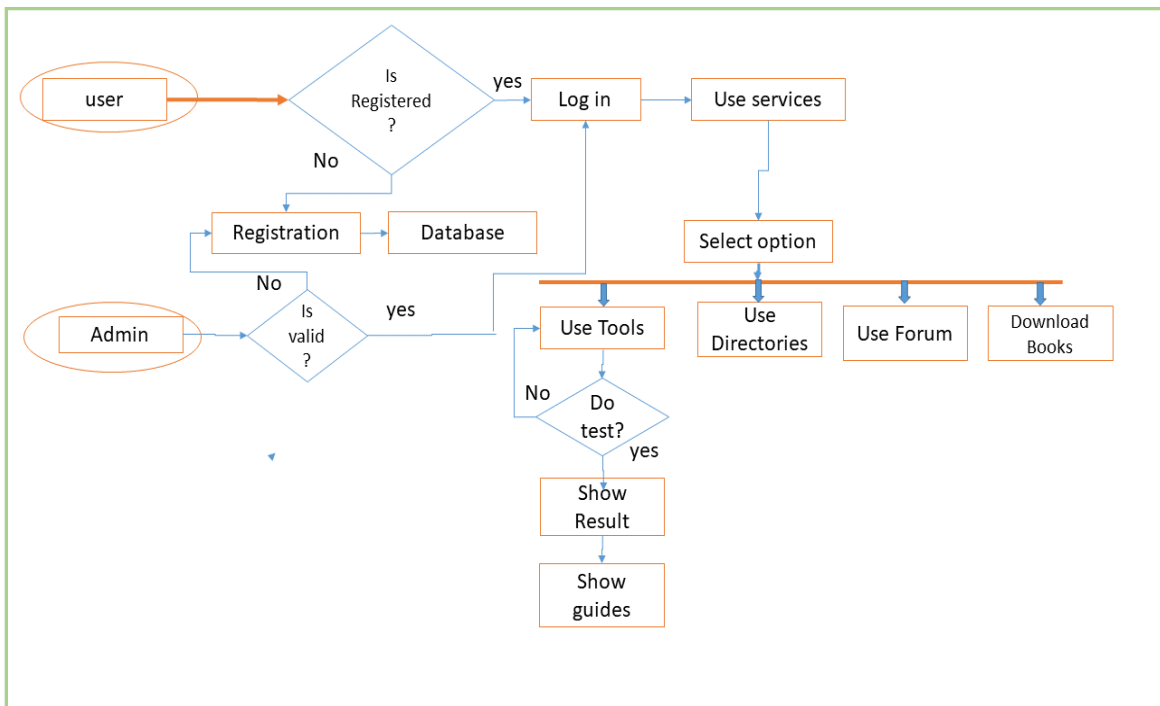


Figure 3.1: BPM of Career guidance System

3.2 Requirement Collection and Analysis

These are very important words for the construction of a system or any web application of any kind. It satisfies the user's and the admin's objectives. As our application is concerned with the requirement of 8th grade to 12th-grade students, so we went to them and has tried to find out what are their requirements for this application.

Career guidance is a hard term for every person. Since our project is for specific users, so we go to some of the students & hear their requirements. Then Analysis & research on it. However, because of some epidemic reason, we could check our newly developed project on some students only. It seems they are happy & appreciate it & request us to develop it more in the future. We think this application will provide them a great service.

3.2.1 Software Requirements

We used the following software & tools to create this web application:

Frontend Design:

- System Design: Adobe Photoshop, Adobe XD, Canva.
- Language: HTML, CSS, JavaScript.
- Framework: Bootstrap 4 (CSS), SCSS.
- Editor: Sublime text.
- Device: computer.

Backend Design:

- Language: python.
- Framework: Django.
- Editor: PyCharm.
- Database: MySQL.

3.3 Use Case Modeling

The use case model is a graphical description of the interactions between the device components. The use case is a technique used in system analysis to define, explain and coordinate system specifications. Figure 3.2 demonstrates the use case modeling of the application.

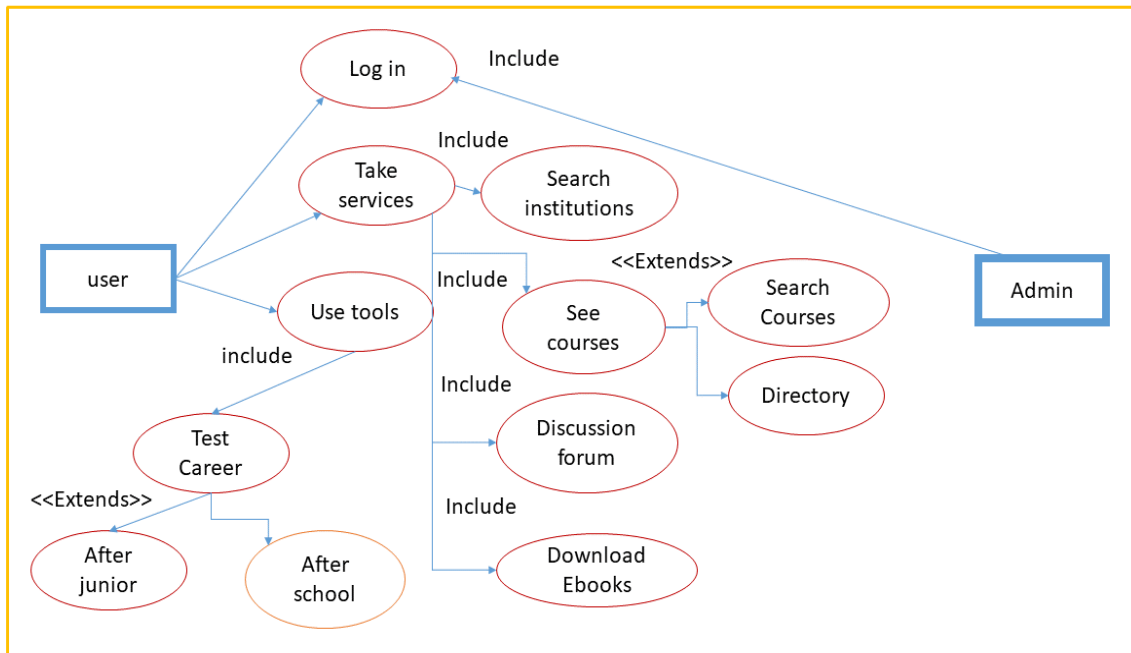


Figure 3.2 Use case modeling of the application.

Use Case: log in

Actor: user

Precondition: Sign In

Primary Path:

1. Click on “Sign Out” button

Alternate Path:

1. Go for Registration

Use Case: Approve log in

Actor: Admin

Precondition: Registered before

Description: After login Admin will check-in the database that the login is valid or not.

Use Case: Take services

Actor: user

Precondition: log in

Description: After logged in user can take services & it extends as they can see courses & institutions directory, download e-Books, discuss their course & future career-related problem in the discussion forum.

Use Case: Search Institutions

Actor: user

Precondition: Take Services

Description: After take services user can search Institutions, which are available in our country.

Use Case: See courses

Actor: user

Precondition: Take Services

Description: After take services user can see courses, which are available in our country. It extends the directories of available courses in our country & courses description based on test result and departments.

Use Case: Discussion forum

Actor: user

Precondition: Take Services

Description: After take services user can discuss in the forum about their problems. School students have many career-related questions and a lot of curiosity but they cannot get proper guidelines. By using this service, they could get various solution and guidelines.

Use Case: Test career.

Actor: user

Precondition: log in

Description: This section extends two assessment tests as junior-level & after higher school level. Junior-level students will check between science, arts & commerce section & the system recommended them their probable section based on the test. After school level, students will get suggestions based on their interest level & abilities. This test method is focused on the theory of three factors on career guidance by Professor Frank Parson (1909)[1], who is known as the founder of the vocational guidance movement and from the strong interest inventory established by Professor Edward Kellog Strong Jr.[2]. It has designed for high school students, college students, and graduates [3], which matches a person with a career based on his own interests and abilities.

3.4 Logical data model

It also known as Entity Relationship diagram. Figure 3.3 demonstrates the logical data model of the application.

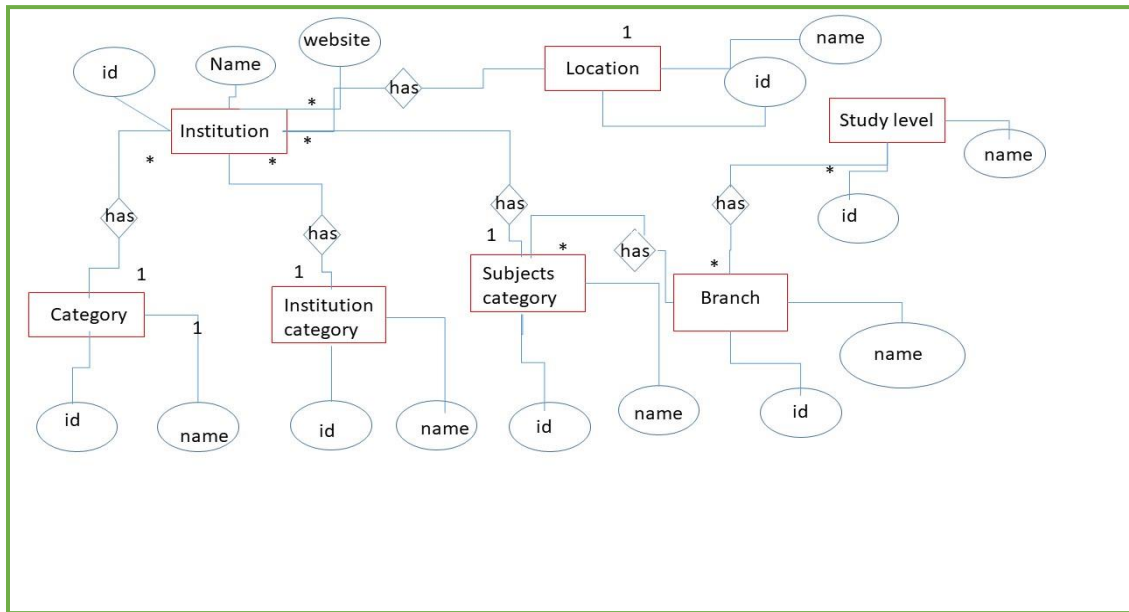


Figure 3.3 logical data model of the application.

3.5 Design Requirements

The most important activity for completing the entire project is to figure out the specifications. The other side of the development is dependent on designing the system.

That graphically represents how the system will be working:

- This web application has a log in section, services & tools menu.
- In the services menu, it has some submenus such as institutions directory, course details & directory, discussion forum & E-books.
- In the tools menu, it has a submenu as group tester for junior-level students, which will be, recommended users the probable group between science, arts & commerce. The other submenu is future career tester that is for higher secondary level students that will recommend to them their probable future career based on their interests & skills. It has also three submenus based on humanities, science & business studies sections.

CHAPTER 04

Design Specification

4.1 Front-end design

The front-end design is a graphical front-view of any program. This is the client-side representation of any program where its functions can be seen & used by a user. Therefore, for the front-end design & development we use HTML, CSS, Bootstrap and JavaScript in this project.

HTML: We used this language for documents design, which has to display in a web browser in this project.

CSS: We used CSS3 & SCSS in our project for adding style to our Web documents.

Bootstrap: We used Bootstrap 4 in our project to make our project responsive, mobile-friendly front-end web development.

JavaScript: JavaScript is a high-level, multi-paradigm, dynamic, prototype-based object-oriented programming language. We used this language for programming some functions in our project such as making result of the career assessment tests.

4.2 Back-end design

The backend programmer knows the backend as server-side programming, which is only accessible & manageable. In this project, we used python & Django for backend programming & MySQL for generating the database.

Django: We used Django, which is a python framework, and one of the strongest aspects of Django is an admin panel. Read metadata from our models to provide a simple, model-centric interface by following (MVC) model-view - controller architectural pattern, where

authorized users can control and oversee content on their web. Figure 4.1 shows the Django admin page.

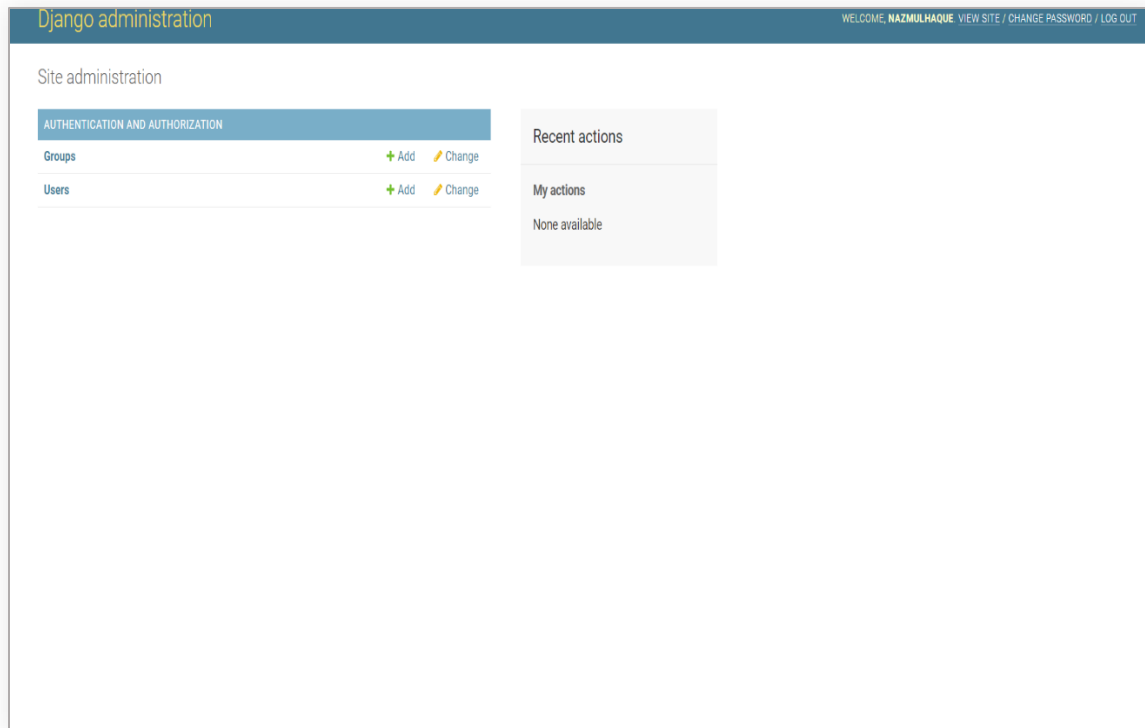


Figure 4.1: Django Administration page

4.3 Interaction Design and UX

Interaction design is the design of interaction between users and items. UX or User Experience Design is about developing or forming the experience of using a product, and much of this experience requires some interaction between the user and the product. How often the application would be popular with the user that depends on the engagement of the app with the user. If the program is handy to use and gives a great result to the customer, it can gain popularity. UX or user interface design is the most challenging aspect of a programmer. Always have to concentrate on the experience of consumers using applications. Therefore, we are paying attention to this sector and looking to implement an application that has a satisfactory user-accepted interface.

4.4 Implementation Requirement

We need various types of equipment, components and applications to develop our project.

- For frontend Implementation, we require HTML 5, Bootstrap 4, CSS 3, SCSS and JavaScript.
- For Backend development, we need Python & Django framework.
- For Database implementation, we need MySQL & XAMPP server.
- We also need PyCharm for an integrated development environment.
- We will use Git for version control of the project.

CHAPTER 5

Implementation and testing

5.1 Implementation of Database

We explain in this section how we implemented our database. We use MySQL & XAMPP for the implementation of the database. We built project data models using Django, and then Django automatically provides us with a database abstraction API that allows us to build, restore, update and delete objects. In figure 5.1, we can see the site administration of Django Database API.

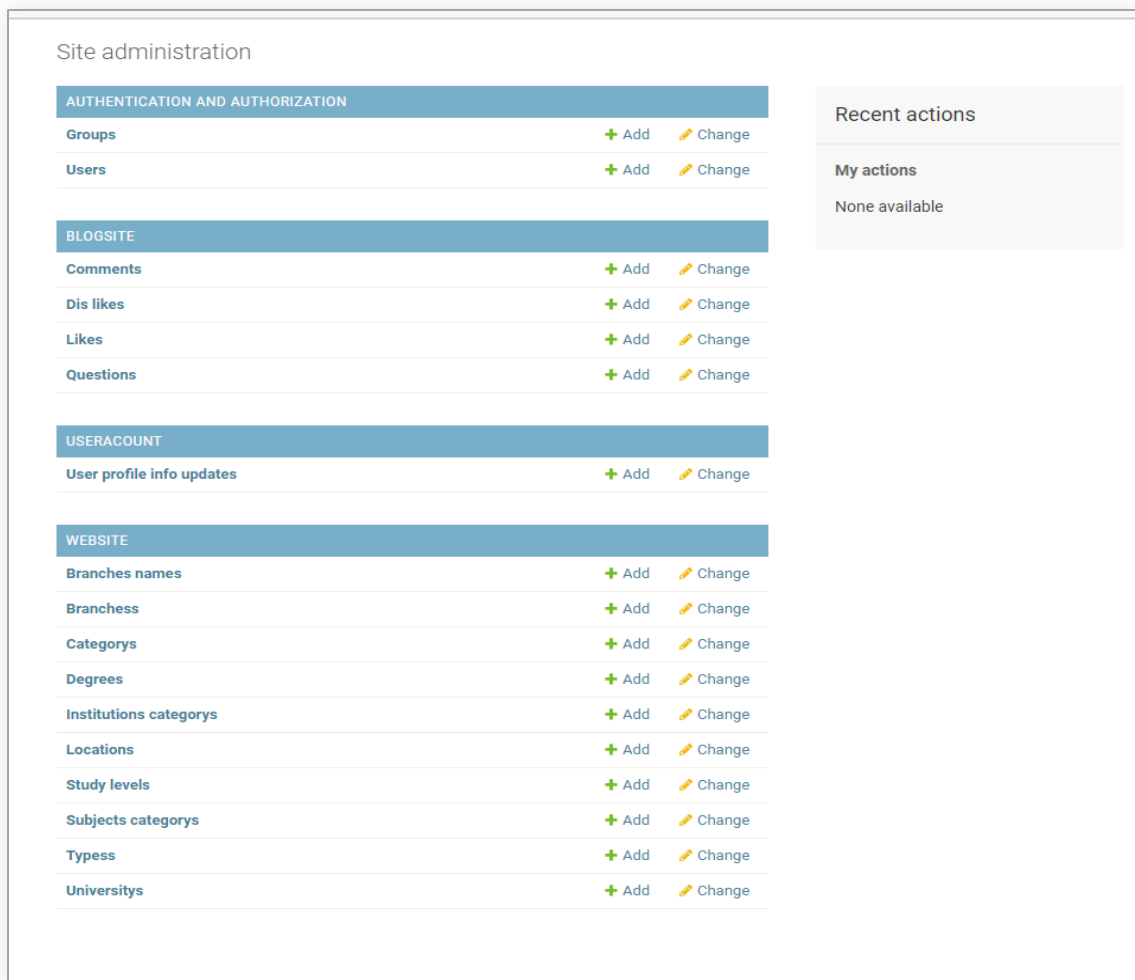


Figure 5.1 Site administration of Django Database API

Now In figure 5.2, we show the database & sub-database table of the local server home page, by using XAMPP & MySQL on the server-side.

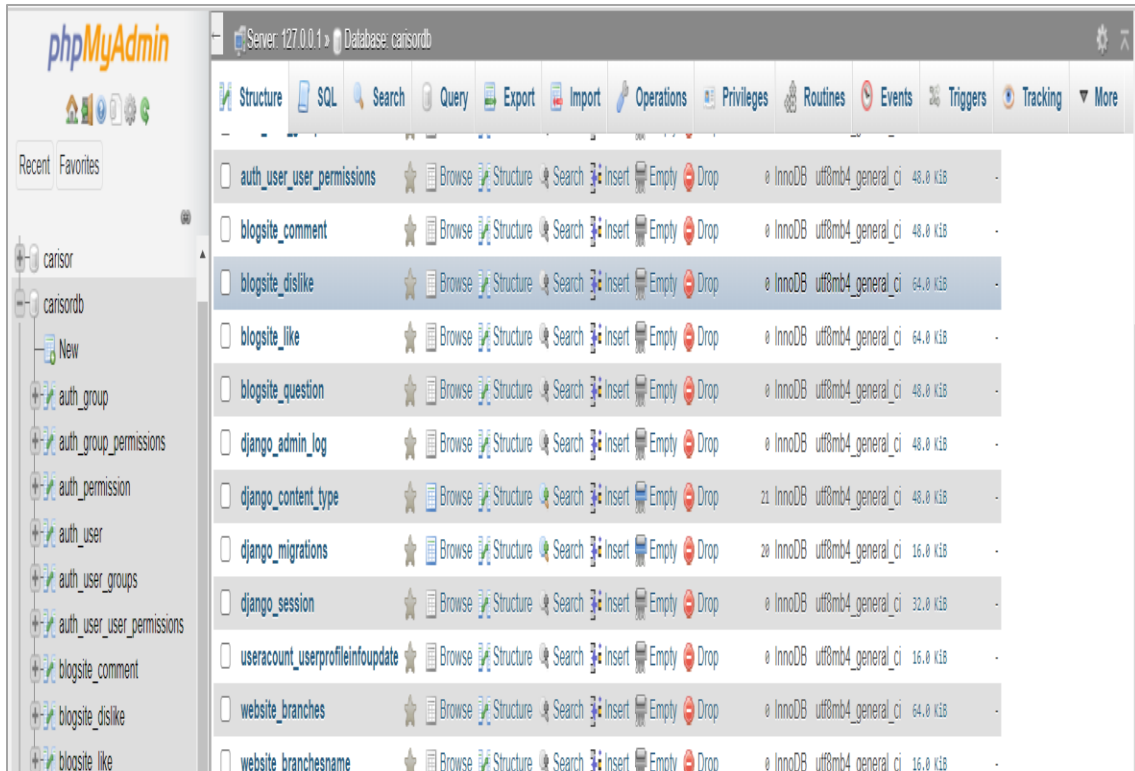


Figure 5.2: Implementation of the main system table

We have Courses Directory & Institutions directory. Suppose when a user wants to see an institution in his division he could search in frontend & then backend will give data from this page. Every institution has a unique id. In figure 5.3, we show Institutions directory.

+ Options				id	institutions_Category
<input type="checkbox"/>	Edit	Copy	Delete	1	সাধারণ বিশ্ববিদ্যালয়
<input type="checkbox"/>	Edit	Copy	Delete	2	বিজ্ঞান ও প্রযুক্তি বিশ্ববিদ্যালয়
<input type="checkbox"/>	Edit	Copy	Delete	3	কলেজ
<input type="checkbox"/>	Edit	Copy	Delete	4	টেক্সটাইল বিশ্ববিদ্যালয়
<input type="checkbox"/>	Edit	Copy	Delete	5	কেন্দ্রীয়ভাবে সংযুক্ত
<input type="checkbox"/>	Edit	Copy	Delete	6	ইনস্টিটিউট
<input type="checkbox"/>	Edit	Copy	Delete	7	মেরিটাইম ইউনিভার্সিটি
<input type="checkbox"/>	Edit	Copy	Delete	8	কৃষি বিশ্ববিদ্যালয়
<input type="checkbox"/>	Edit	Copy	Delete	9	প্রকৌশল বিশ্ববিদ্যালয়
<input type="checkbox"/>	Edit	Copy	Delete	10	মেডিকেল কলেজ
<input type="checkbox"/>	Edit	Copy	Delete	11	ইঞ্জিনিয়ারিং কলেজ
<input type="checkbox"/>	Edit	Copy	Delete	12	আন্তর্জাতিক বিশ্ববিদ্যালয়
<input type="checkbox"/>	Edit	Copy	Delete	13	পলিটেকনিক ইন্সটিটিউট
<input type="checkbox"/>	Edit	Copy	Delete	14	মেডিকেল বিশ্ববিদ্যালয়

Check all With selected: Edit Copy Delete Export

Figure 5.3 Institutions directory

5.2 Implementation of Front-end Design

For any kind of application, the development of the front-end is the most important section. Frontend works on the presentation layer & users can directly interact with it.

We display a sign in page in Figure 5.4. The user has to log in to this tab if the user is registered. If the password is forgotten, it must be reset, and then the password reset box will appear. The Reset Password tab is shown in Figure 5.5.

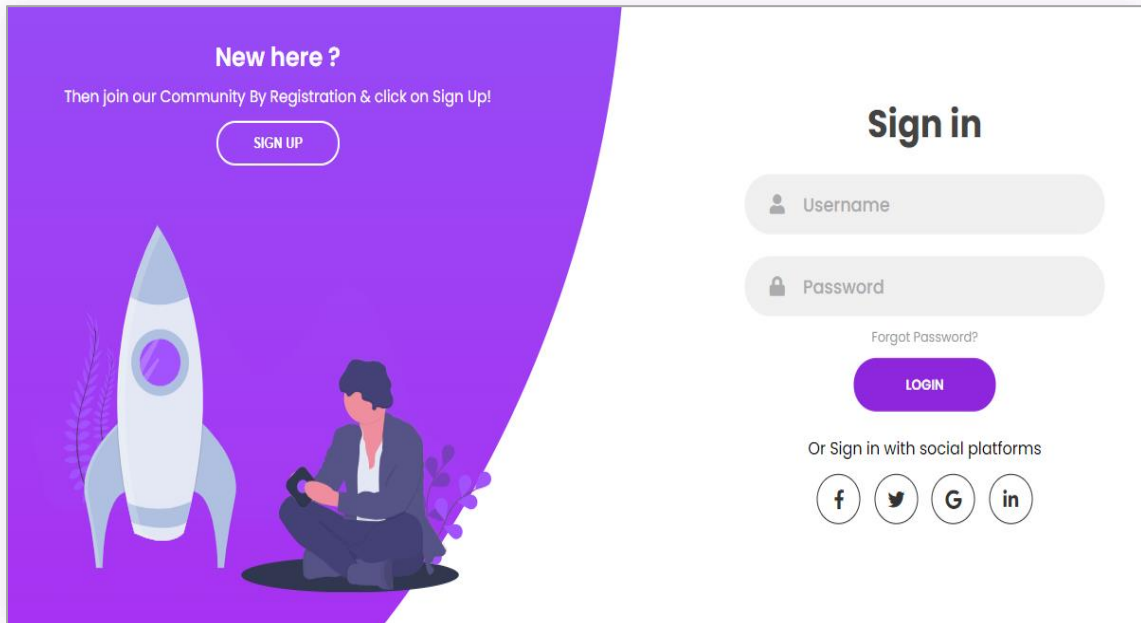


Figure 5.4 Sign-in page.

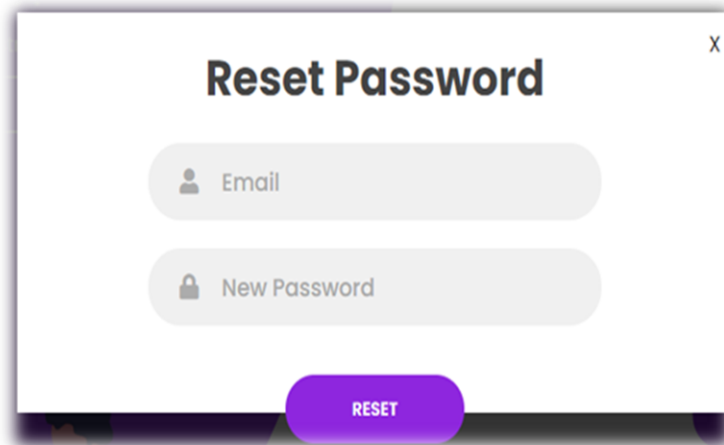


Figure 5.5 Reset Password option.

If the user has not registered then he has to register by Sign up page. Figure 5.6 shows sign up page.

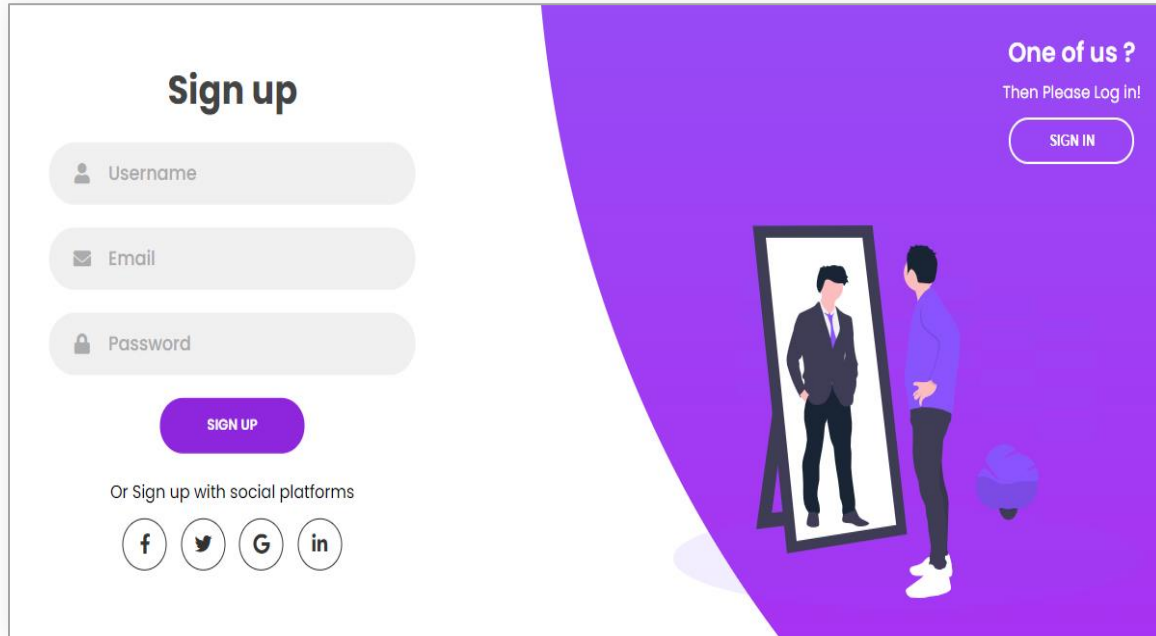


Figure 5.6 Sign-up page for new registration.

After sign in, this demo project has services, tools & log in menu. In the tool's menu bar, it has two submenus, which are a kind of future career tester. We developed these tools by using a combined version based on *The strong interest inventory* of psychologist Edward Kellogg Strong (1927) and professor Frank Parsons (1909) career recommendation law [1]. Strong (1927) presumed that an interest inventory could predict a person's entry into the occupation at a higher rate than chance [2].

On the other hand, Parsons suggested in essence that career decisions should be based on [4]:

- Self-reflection (i.e. understanding of one's career-relevant qualities, such as interest and talent).
- Exploration of potentially compatible careers and what they have to say (i.e. career knowledge acquisition),
- Efforts to balance, by the use of "actual reasoning" (i.e., proper decision-making), self-to prospective occupational paths.

So In this project for intermediate level students we arranged assessment questions based on their interest & ability, then match them with users & suggest some courses on the probability rate. In the same way, we take an assessment tests for junior level students based on their attributes as interest, talent and ability.

In figure 5.7, we show the test page for junior level students where we can see three questions, where the number 1 question is about interest [2], number 2 Question is about talent [4] and number 3 question is about the ability of Science group students [4].

Home About Services Tools Language Login

বিজ্ঞান এবং গনিত বিষয়ে পড়াশোনা করতে তোমার কেমন লাগে?

খুব ভালো মোটামুটি ভালো লাগে না

তুমি গনিতে এবং বিজ্ঞানে কেমন?

খুব ভালো মোটামুটি তেমন ভালো না

তুমি কেমন পরিশ্রম করতে পারো?

Figure 5.7 Group tester tool after 8th-grade students.

After test, system shows the result. Figure 5.8 shows the suggested result in the probability factor.

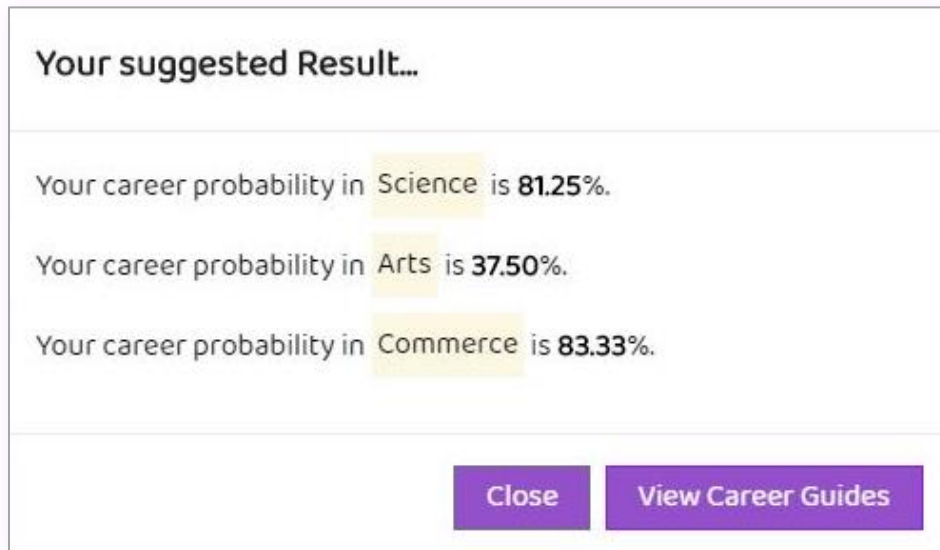


Figure 5.8 Result of group tester tool for 8th-grade students.

Figure 5.9 shows questions on interest and Figure 5.10 shows questions on ability for the intermediate level students for choosing subject for graduation. We want to noted that all questions of this project comes from various renowned website such as career.gov.nz [8], which is a government website based on career for the development of their people's in New Zealand, Career explorer.com [10], betterteam.com [9] and some career related books [1].

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১. তোমার পাঠ্য বইয়ের উদ্ভিদ বিজ্ঞান বিষয়ক অধ্যায়গুলো পড়াশোনা করতে তোমার কেমন লাগত/লাগে ??

খুব ভালো ভালো মোটামুটি ভালো
 ভালো লাগে না

২. প্রকৃতি এবং পরিবেশ রক্ষা এবং এ সম্পর্কিত পড়াশোনা -জড়িত এমন কাজের ক্ষেত্রে আপনি কতটা আগ্রহী?

কাজের মাধ্যমে অন্তর্ভুক্ত থাকতে পারে:

- পৃথিবী, সমুদ্র এবং আকাশ সম্পর্কে অধ্যয়ন।
- পরিবেশে দূষণের প্রভাবগুলি নিয়ে গবেষণা করা।
- পরিবেশগত বর্জ্য হ্রাস করার উপায়গুলির বিষয়ে পরামর্শ দেওয়া।
- পরিবেশ রক্ষা করতে আইন প্রয়োগ করা।
- মাটি এবং জলের পরীক্ষা করার মতো বাবহারিক কাজ।

খুব আগ্রহী আগ্রহী মোটামুটি আগ্রহী

Figure 5.9 Future Career tester tool for 12th-grade students.

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৪. তুমি পদার্থবিজ্ঞানে কেমন ?

খুব ভালো ভালো মোটামুটি ভালো
 তেমন পারি না

৫. তুমি গণিতে কেমন ?

খুব ভালো ভালো মোটামুটি ভালো
 তেমন পারি না

Figure 5.10 Future Career tester tool for 12th-grade students.

Then the based on questions some suggested subjects as result for graduation will show with probability factor. Figure 5.11 shows result.

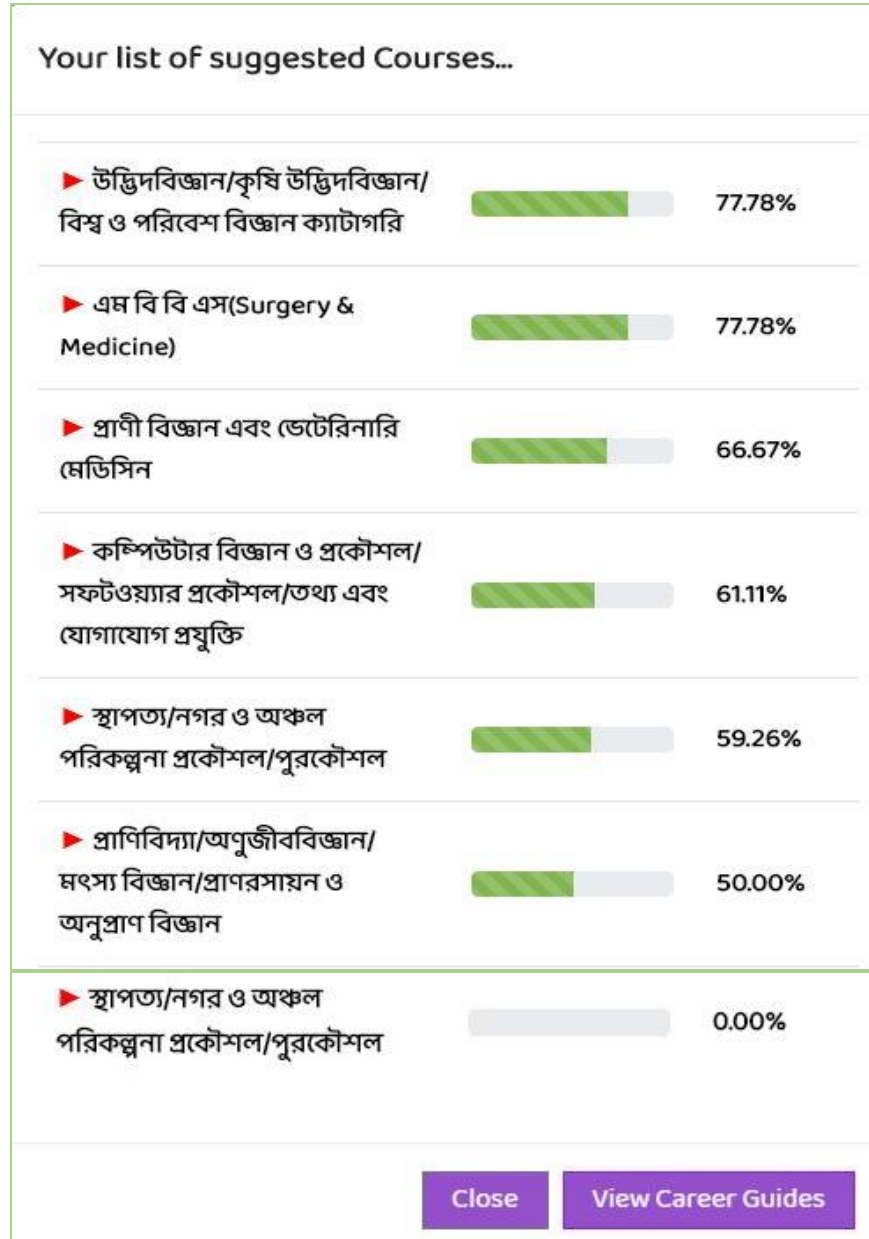


Figure 5.11 Result of future Career tester tool for 12th-grade students.

After showing the result, users can close it or view career guides .Then if a student click on view career guides, system will directed himself to the career guides page, where he could see the career guides as courses according to the science, humanities and business studies group, which is available in our country. Figure 5.12 shows the demo page of career guides based on courses.

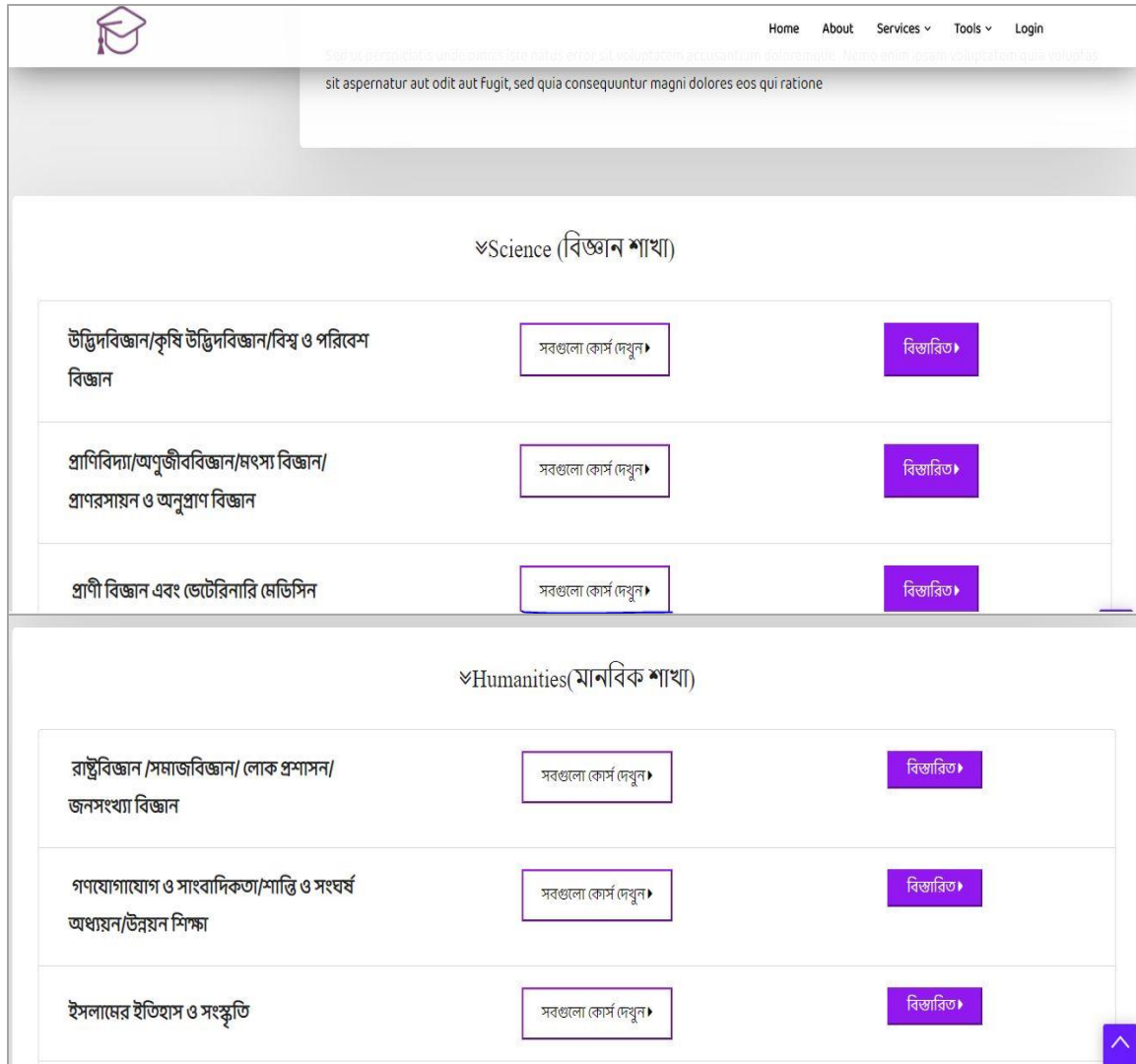


Figure 5.12 the demo page of career guides based on courses.

After that if, we want to see any course details with available opportunities in our country, then we have to select that course. Then we can see the opportunities of that course. Figure 5.13 shows the demo page of a selected course to see details of available opportunities.



Figure 5.13 the demo page of the selected course.

In the services menu bar, it has some submenus & these are Institution directory, Courses details & courses directory, Discussion forum & E-books.

Here this figure 5.14 shows the “discussion forum”. Educational life is a time of preparation for the future career. The seeds of a future career are formed at this time. During this time, they have a lot of career-related questions and a lot of curiosity but they cannot get proper guidelines. Therefore, it is an online discussion and Q&A forum where they can solve their problems related to their future career issues by questions and answers.



Figure 5.14 Discussion, questions & answers forum.

Another submenu of services is “Institutions directory”. Directories are important cause it has many listed & grouped information & it reduces waste of time for searching this information. In the directory page of our project, a user can search and see all institutions of Bangladesh depends on division. This will save users valuable time for searching for information about institutions in Bangladesh. Figure 5.15 shows these directories.

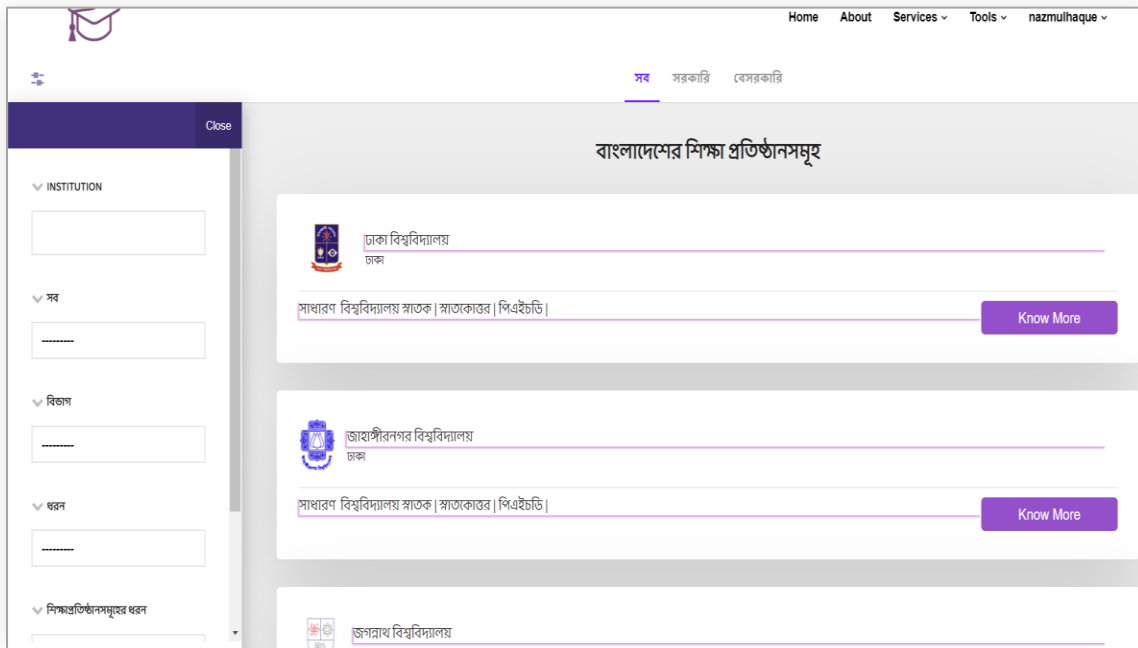


Figure 5.15 Institutions directory.

In the Courses submenu, this system shows about course details & course directories, which are available in Bangladesh. Figure 5.16 shows course details and Figure 5.17 shows course directory this system.

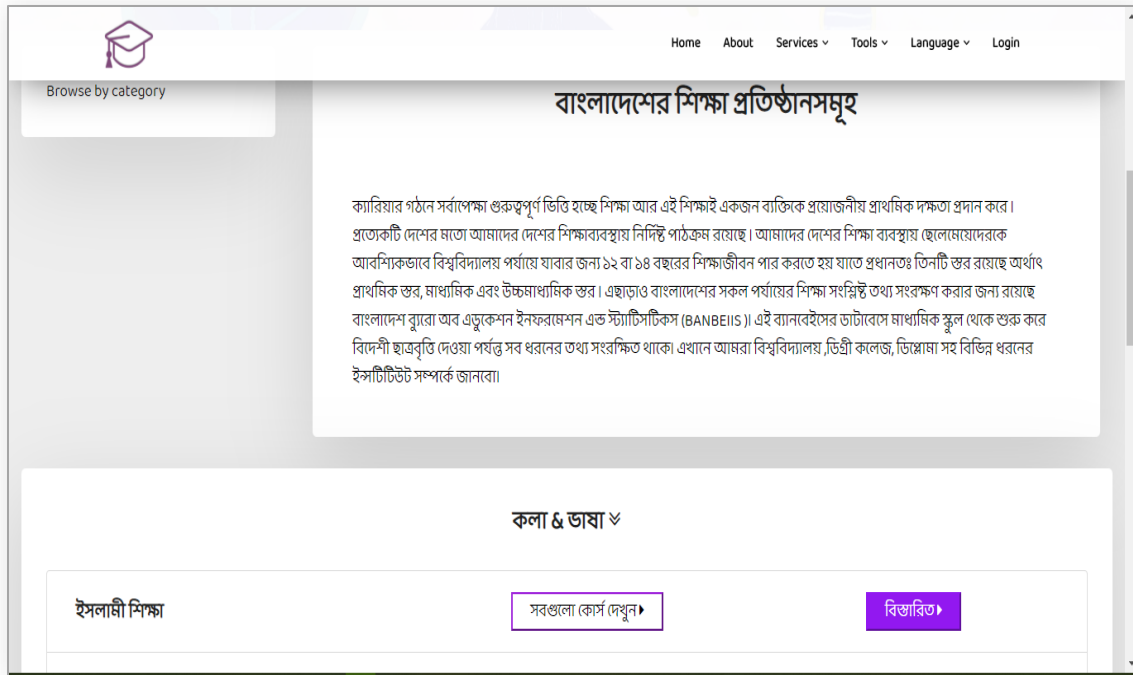


Figure 5.16 course details of this project

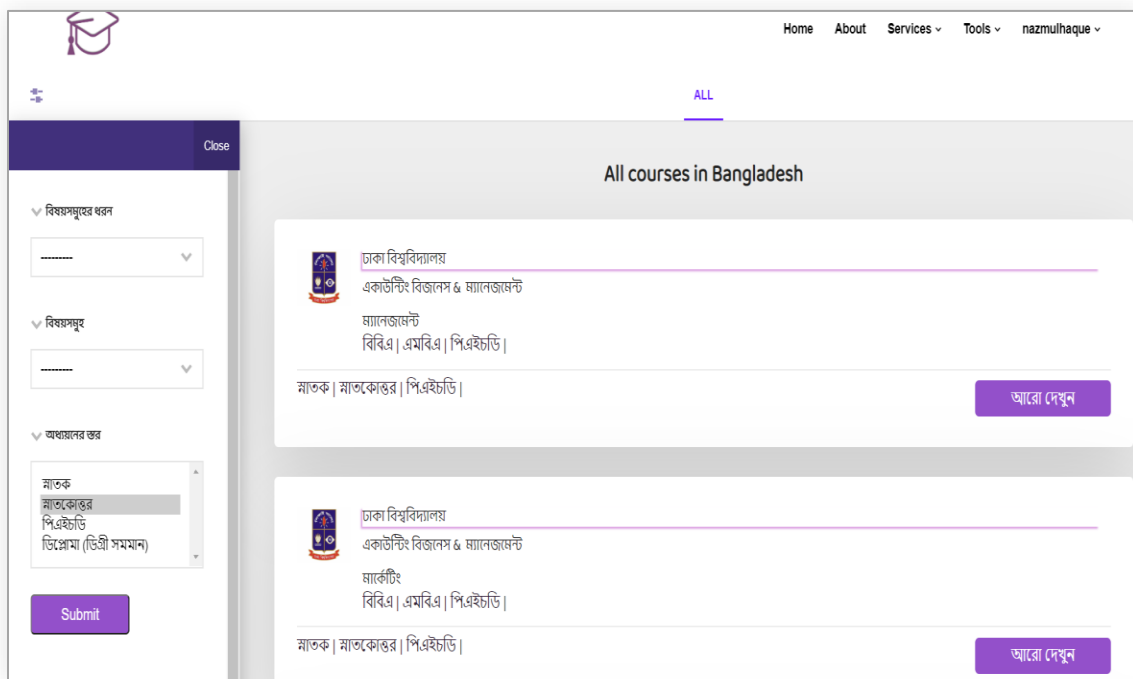


Figure 5.17 course directory of this project

5.3 Testing implementation

Implementation of testing is the process of confirming whether the system features are fully functioning. It also examines our system's upcoming implementation, where the administrator can see the case and make the right decision. We test the functionalities of our project many times to give bug free services and to make it user friendly and compatible.

5.4 Test result and reports

TABLE 5.1 TEST RESULT AND REPORTS OF THIS PROJECT

Step	Test Case name	Test case description	Expected Result	Actual result	Status (Passed/Failed)
1	Log in	Verify the Logged in on the log in page.	Login successful or an error message "Failed to Sign in" must be shown	Login success	Passed
2	Provide Password	Provide Incorrect password.	Warning or show Forget password	Displayed warning	Passed
3	Search a university In Institution directory	Search available government agricultural university which is located in the Dhaka division In Bangladesh.	Show available list of that selected course or Show not available in database.	Displayed available list with directories of that selected course	Passed
4	Take assessment Test.	Take a career assessment test of science group of higher secondary level students.	Suggest result by sorting and show career guides or Show Warning for answer all questions.	Suggested result and show career guides based on user assessment test.	Passed

CHAPTER 6

Impact on Society, Ethical Aspects and Sustainability

6.1 Impact on Society

Career guidance is one of the most challenging task in the world. In the digital guidance system, it will give more efficiency than the traditional approach. Our project of career guidance system is develop for a specific group of Bengali speaking users in Bangladesh where students will get guidelines on how to prepare for their future careers. We expect by this digital system, it will create a great impact on our society to detect and determine a right career path. People would take decision not only by their guardian's wish but also by the student's interest, ability, talents and market demand. By implementing a validate proposal focused on the digital framework, society will more dedicate to taking such kind of digital services. Lack of proper guidelines will reduce the dropout rate of students. Wasting time about searching solution, Unemployment problems, economical loss in our country will reduce.

6.2 Ethical Aspects

Educational and Career advising is not an easy task as it seems, it is a complex thing that relies on several variables and aspects. People think more and more that after sometimes they are not able to decide even not able to get what they want to do for their life and in the end, they end with nothing and fell into wrong hands and things, which made any country the sounding alert. Moreover, in professional life, it has seen that many of them are working on something beyond their choice. Therefore, they do not give good productive results. In our Society, most of the times career Selection has been decide by the family members without knowing the students interest, ability, talent. However, according to the *parson's career theory* (1909) and *the strong interest inventory* (1927), testing school students by their interests, ability, attitudes & talents are the most accepted method for selection of the right career path in the world. We use these methods in our project for assessment test. At present in our country, the tendency of suicide rate has increased due

to poor academic results or lack of expectations and career frustration. Through our forum platform, students will be able to share their issues and seek solutions or best advice through experts.

6.3 Sustainability plan

In various developed countries such as New Zealand, their governments have various information and databases about the careers of their residents, by which they provide all kinds of career-related facilities to their young people. However, we do not have such a system in our country especially for our targeted user. We expect that in the future this project will develop more according to the demand of our country with the help of the government and private sector. It will help the youth of the country and will be able to provide various services about their careers. Moreover, many career opportunities will be create based on youth interest. In this way, they will improve their own according to the needs of the country, which will reduce unemployment and provides the economic development of the country.

CHAPTER 7

Conclusion and future scope

7.1 Discussion and Conclusion

Career guidance is not an easy term .So in the world; different country has different types of career guidance system for the development of the people in their country & economy. However, our country has no such applications especially for the 8th-grade class to 12th-grade class people, but this time is to sow the seeds of their career. Therefore, we are bringing this project to students so that they can understand their career cycle, prepare themselves for their future careers based on their interest and skills, share their learning and career challenges so that they can come up with solutions, resolve their curiosity. We hope that in the future, by using our services, our country's students can build themselves based on career & market demand.

7.2 Scope of further developments

At present, due to the lack of a database of our targeted user community, we cannot incorporate all of the essential features in our web-application for an epidemic cause. However, our efforts will not stop.

So, our Future works will be:

- 1) CV extracting system by NLP will be added.
- 2) user details extracting system for gaining quality about users & suggest himself a better solution will add.
- 3) Many carrier-based solutions will be added.
- 4) Career-testing system will be improved. School details & school system solutions will be added.
- 5) We will add blog sites & ask the expert options where professional experts could give career solutions.

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APPENDIX

Appendix A: Project Reflection

Career guidance is a challenging domain in the world. This project is an online career guidance system for solving various problems of school students. Cause this time is the pillar of the future. We take this project as a challenge and have developed it for Bengali speaking users and has designed it in Bangla. Initially we keep some services in our project such as questions & answers /discussion forum, Institution directory, Different courses directory that is available in our country, tools for groups of domain tester & future career tester & details opportunities based on recommended results. We will develop it more & more in the future for solving various kinds of career-related problems. Doing this project, we have to contact with school students .We have heard that maximum students have same problem in our country for being prepared himself for their future career. We have learn from this project many things. We have learn how to detect and solve problem of a specific users group. We have learn also many things & strategies about web application domain. Because of pandemic reason we cannot collect more data about students so that cannot developed more this project. Nevertheless, our efforts will not stop and in future, we will develop & implement this project for our country.

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