Job Finder: find job or employee with your preferences

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Degree of Bachelor of Science in Computer Science and Engineering

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APPROVAL

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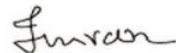   **Internal Examiner**

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DECLARATION

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

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ABSTRACT

"Job Finder: find job or employee with your preferences" is a website where users can create a strong profile, post a new job, apply for a job and filter applicants. Now every organization has online notification for their empty post or new post. And they get a huge amount of CVs. It is difficult to select the appropriate CV for the post and they cannot filter CVs. On this website we can filter applicants by author requirement skills and match with applicant given skills. As a result, organizations can save their time. In the user profile, they can attach a CV and they can easily update or delete necessary data. In the category section, job providers can select job titles and post their status. Job providers can add an "Apply" button for direct application. Job seekers can see posts in his/her news feed. They can also search for a job in the category section and they can click on the "Apply" button to apply in a simple way. In this website job seekers can easily find right career opportunities and job providers can reach out to potential candidates. Job Finder is a free project where no user has to pay any fee. In this report we have discussed all the features with a technical overview.

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CHAPTER 1

General Information

1.1 Introduction

Our project title "Job Finder: find job or employee with your preferences" is a web based project. We are living in a digital world where we can do everything online. Everyday job seekers are applying for jobs. To apply in different companies or organizations they need different types of CV. Because all companies or organizations are not the same. So the applicant has to add necessary data, delete unnecessary data and sometimes they have to change CV format. At the same time, job providers get a huge number of CVs against their post. It is difficult to check all CVs. Sometimes they do not check all CVs and it is unfair to applicants. So in this project we have made a website that can filter applicants by the author requirements keywords. There are many websites where we can apply for jobs but there is no filtering system. Here users are able to apply for a job by one click and upload their CV and add their skills. Then the author will filter them by their given skills.

1.2 Objective

- Make a strong profile
- Post new jobs
- Find job by preferences
- Apply for a job directly without any difficulties
- Filter Applicants

1.3 Motivation

Nowadays each company or organization receives a huge CV against their circular. It is difficult to check all the CVs, and it is a waste of time to check all the CVs because all of them are not in an appropriate format or good enough. So we think our project will help to solve this problem efficiently. This project will also be helpful for applicants. They can create a strong profile and apply for a job directly without any difficulties.

1.4 Expected Outcome

We will provide a website based solution with excellent user interaction where job seekers apply for a job directly without any difficulties, make a strong profile and the author can filter applicants. Our team will always try to update this project. We believe our project is very easy to use and it will be helpful.

CHAPTER 2

PROJECT MODEL AND SPECIFICATIONS

2.1 Introduction

In this section, we are trying to clarify our proposed model including important charts and descriptions. What types of models should we choose to describe our idea properly and how it will be user-friendly? A proposed model should be built when a model is chosen then it will require some features to work on.

2.2 Business Process Modeling (BPM)

BPM is the activity to describe a process of a business so that a popular process can be explained, analyzed, improved, executed, and automated in business process management. BPM supports us to construct a model that can be helpful for creating a working model of a business.
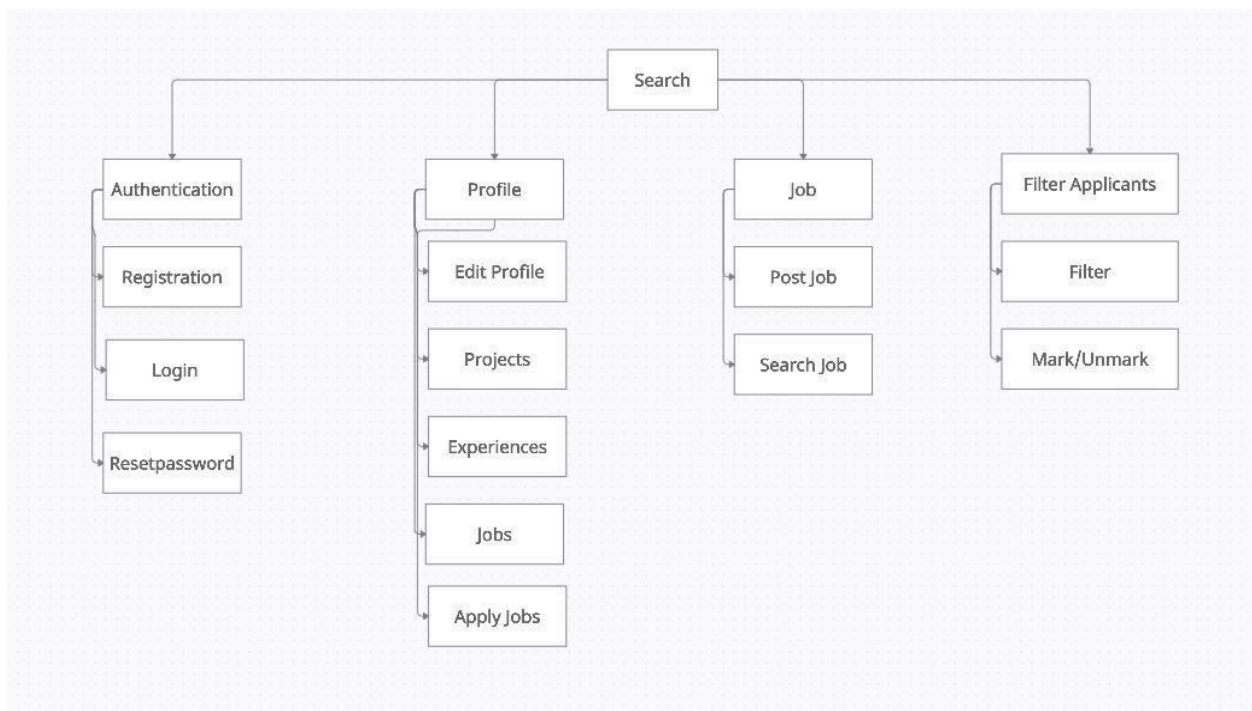
Fig 2.1: Business Process Model

2.3 ER Diagram

Entity Relationship diagram (ER) displays the relationship of entity sets stored in a database. ER diagrams help to explain the logical structure of databases. Mainly ER diagrams are created based on three basic concepts: entities, attributes and relationships.
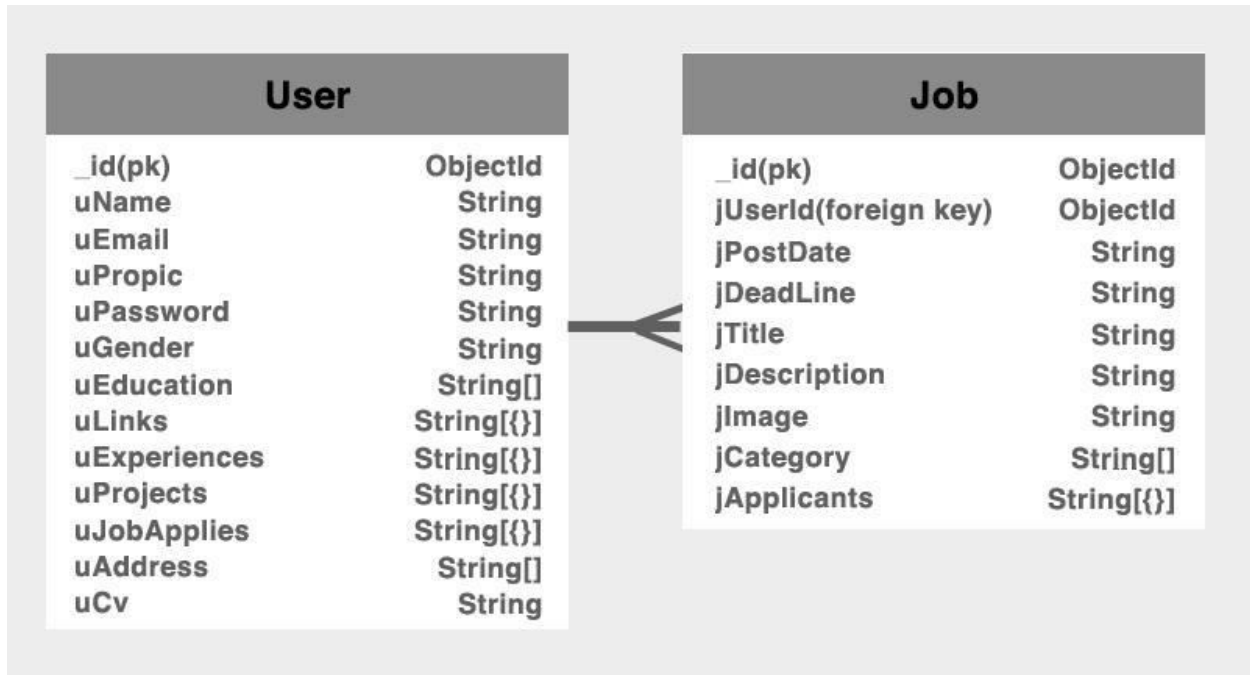
Fig 2.2: ER Diagram

2.4 Requirements and Specification

For any project Requirements and Specifications are important because it contains what is necessary to build it. It can be changed for a certain time as the project builds on as its demand.

2.4.1 Hardware Requirements

We need hardware components to build this project such as:

- Personal computer (Desktop/Laptop)
- Internet connection.

2.4.2 Technical Requirements

We use different types of languages and frameworks to develop this project so that it can be user-friendly.

Frontend: HTML5, CSS3, JavaScript, React.js.

Backend: Node.js, Express.js Framework.

Database: MongoDB.

Operating System: Windows.

2.4.2.1 HTML5

HTML is defined as Hypertext Markup Language. It is a markup language that makes up most web pages and online applications. To refer to other pieces of text a hypertext is used. while a markup language is a series of markings that tells web servers the style and structure of a document. HTML is not a programing language because it can't create dynamic functionality.

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With this markup language, web users can create and structure sections, links using elements, paragraphs, and attributes, and tags [1].

2.4.2.2 CSS3

CSS is defined as Cascading Style Sheets. It is a design language. By this language, we can make our website presentable. By designing with CSS, we can handle the look and feel of the part. If the interface of a webpage does not look good, then most of the time users do not use the webpage. So we need to design a smart user interface. we can control the style of fonts, the color of the text, the spacing between paragraphs, how columns are sized and laid out, what background images or colors are used, layout designs, variations in display for different devices and screen sizes as well as a variety of other effects [2].

2.4.2.3 JavaScript

JavaScript was originally developed as a way of organizing and building various components of web applications. JavaScript can be written as a script (a tiny computer program) or as a series of HTML or XML tags. Common JavaScript terminology includes a define, function, if-statement, else clause, etc. Some of the major advantages of the scripting language include: It is cross-browser, portable, dynamic, standard, secure, simple, extensible, works everywhere, easy to learn, fun to work with, and extremely robust [3].

2.4.2.4 React.js

React is a JavaScript library created for building fast and interactive user interfaces for web and mobile applications. It is an open-source, component-based, front-end library responsible only for the application's view layer. In Model View Controller (MVC) architecture, the view layer is responsible for how the app looks and feels [4].

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2.4.2.5 Node.js

Node.js is an open-source server-side runtime environment built on Chrome's V8 JavaScript engine. It provides an event-driven, non-blocking (asynchronous) I/O and cross-platform runtime environment for building highly scalable server-side applications using JavaScript.Node.js can be used to build different types of applications such as command-line applications, web applications, real-time chat applications, REST API servers, etc [5].

2.4.2.6 Express.js

Express.js is a web application framework for Node.js. It provides various features that make web application development fast and easy which otherwise takes more time using only Node.js. Express.js is based on the Node.js middleware module called connect which in turn uses http module. So, any middleware which is based on connect will also work with Express.js [6].

2.4.2.7 MongoDB

MongoDB is a database where we can store data. It is a document-oriented NoSQL database used for high-volume data storage. It does not use tables and rows like traditional databases, it makes use of collections and documents. Documents consist of key-value which are the basic unit of data. Collections contain sets of documents and functions which are the equivalent of relational database tables [7].

2.5 USE-CASE Diagram

By this USE-CASE diagram, we identify the interactions between the system and its actions.
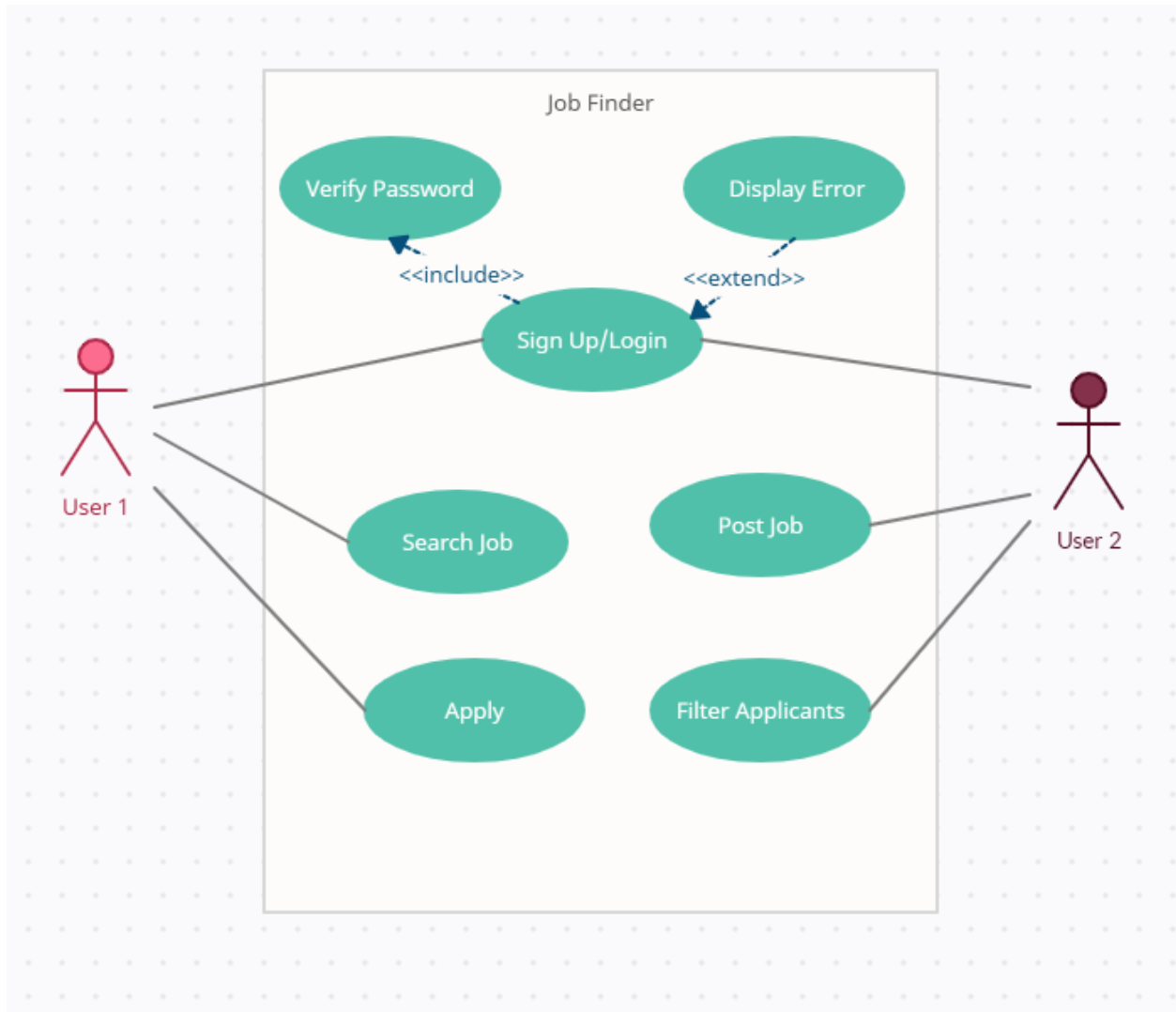
Fig 2.3: USE-CASE Diagram

CHAPTER 3
FEATURES AND DESIGN

3.1 Introduction
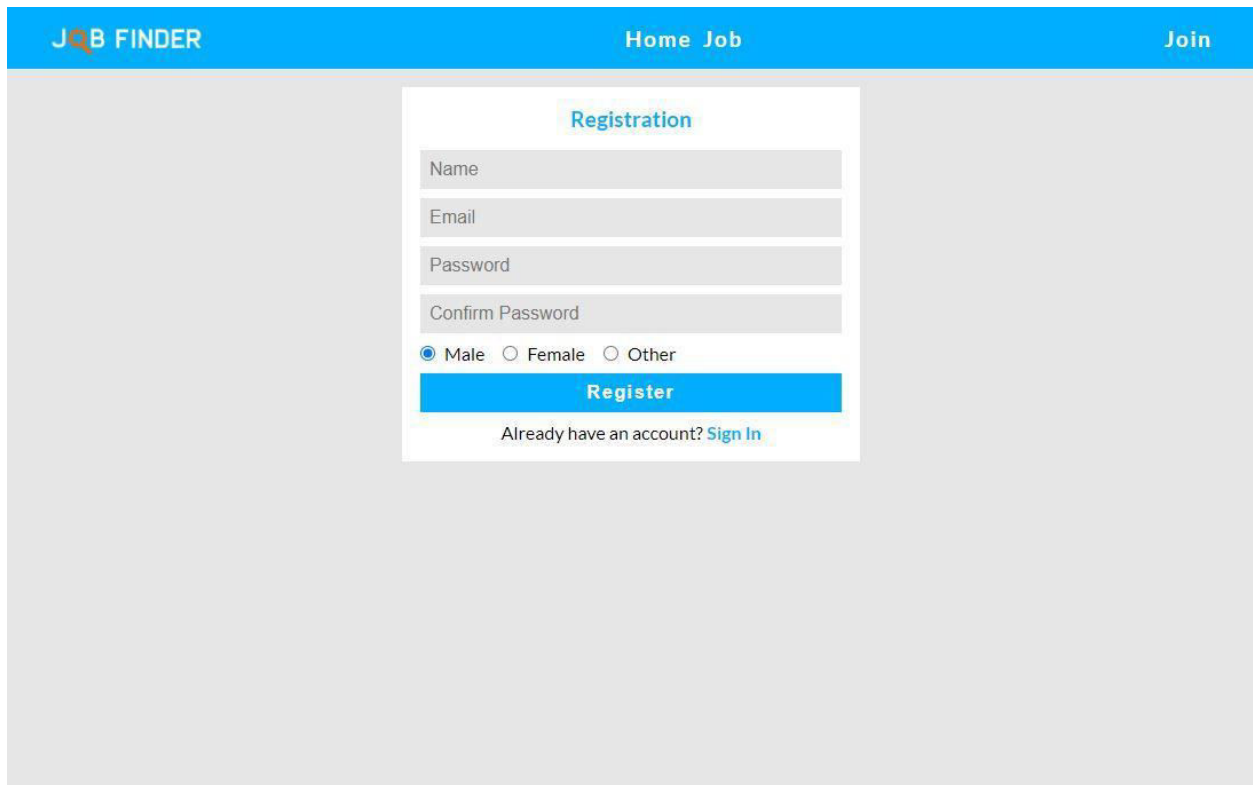
In this section, we will talk about features and design for our project.

3.2 Front-End

The user interface is one of the most important parts of every website. The achievement of a website depends on how user-friendly a website is. We try to design this website very simple and user-friendly.

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3.2.1 Registration Page

For accessing all page users need an account. To create an account, user need a name, valid email address, minimum six (6) digit password and gender selection. Each email address can create only one account. After registration, users can make a strong profile.

Fig 3.1: Registration Page

3.2.2 Sign In Page

If a user already has an account, then the user can log in by email and password. Then users can post jobs, apply jobs and filter applicants and many other functionalities.
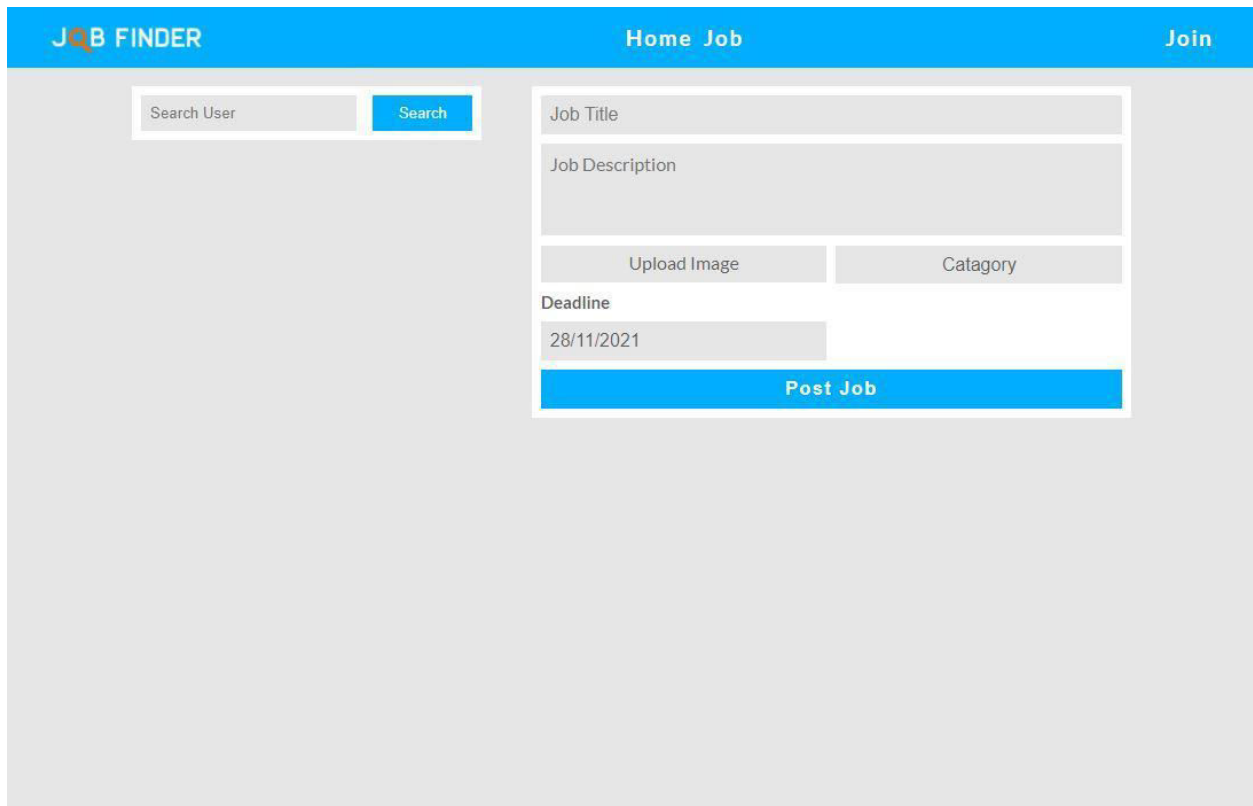
Fig 3.2: Sign In Page

3.2.2 Home Page

On the home page the user will be able to post a new job by giving some information like Job title, job description, any image, deadline and category. But users must be logged in. Job description can contain company details, requirements, and job facilities. User and attached an image related to this job. Category section contains working fields.

Fig 3.3: Home Page

3.2.3 Profile Page

In this section users can create a strong profile and update profile. This section contains user bio information, user previous projects, experiences, jobs posted by the user and jobs which this user applied to.
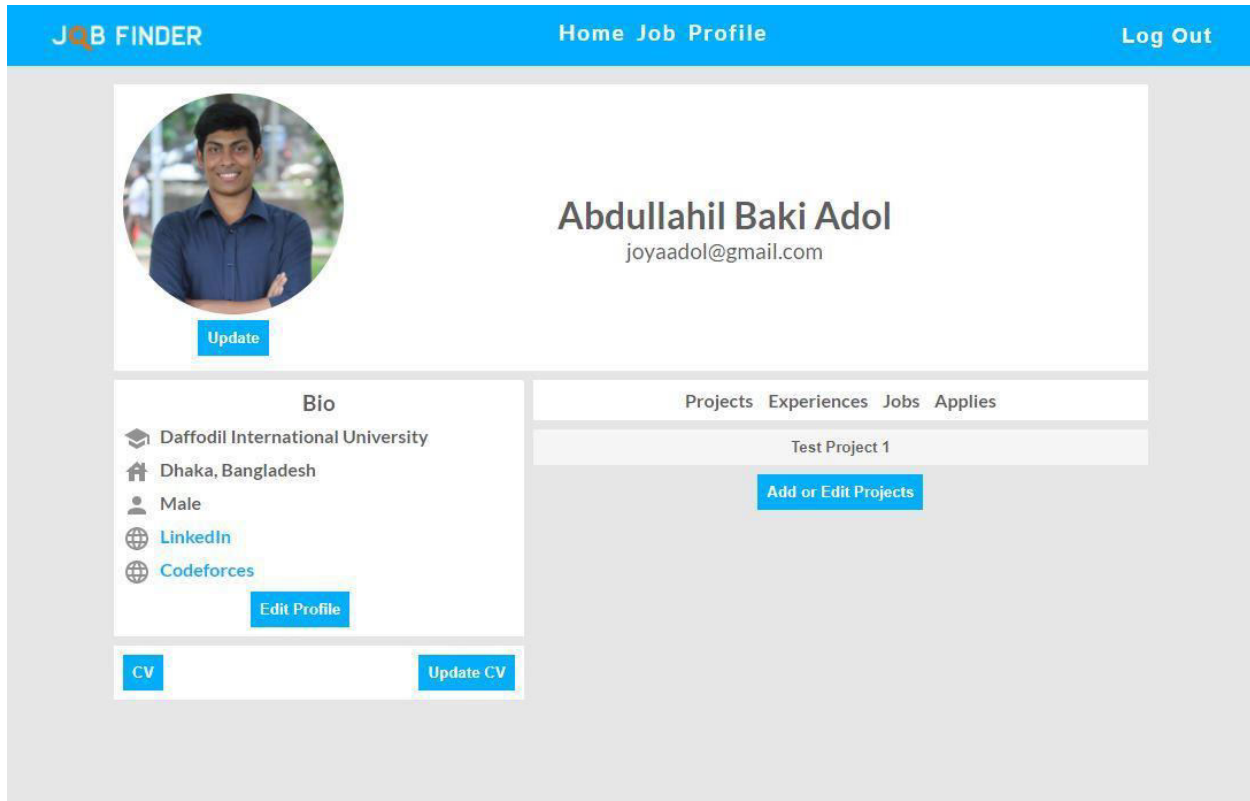
Fig 3.4: Profile Page

3.2.3.1 Edit Bio Page

This section allows users to edit biography information like user profile picture, educational information, address and attached website. Also users can add a CV.

Fig 3.5: Edit Bio Page

3.2.3.2 Projects Page

This section shows users all previous project titles and descriptions. Description may contain project link, source link, and everything about this project.

Fig 3.6: Project Page

3.2.3.3 Edit Projects Page

This section the user can add new projects and be able to edit previous projects.
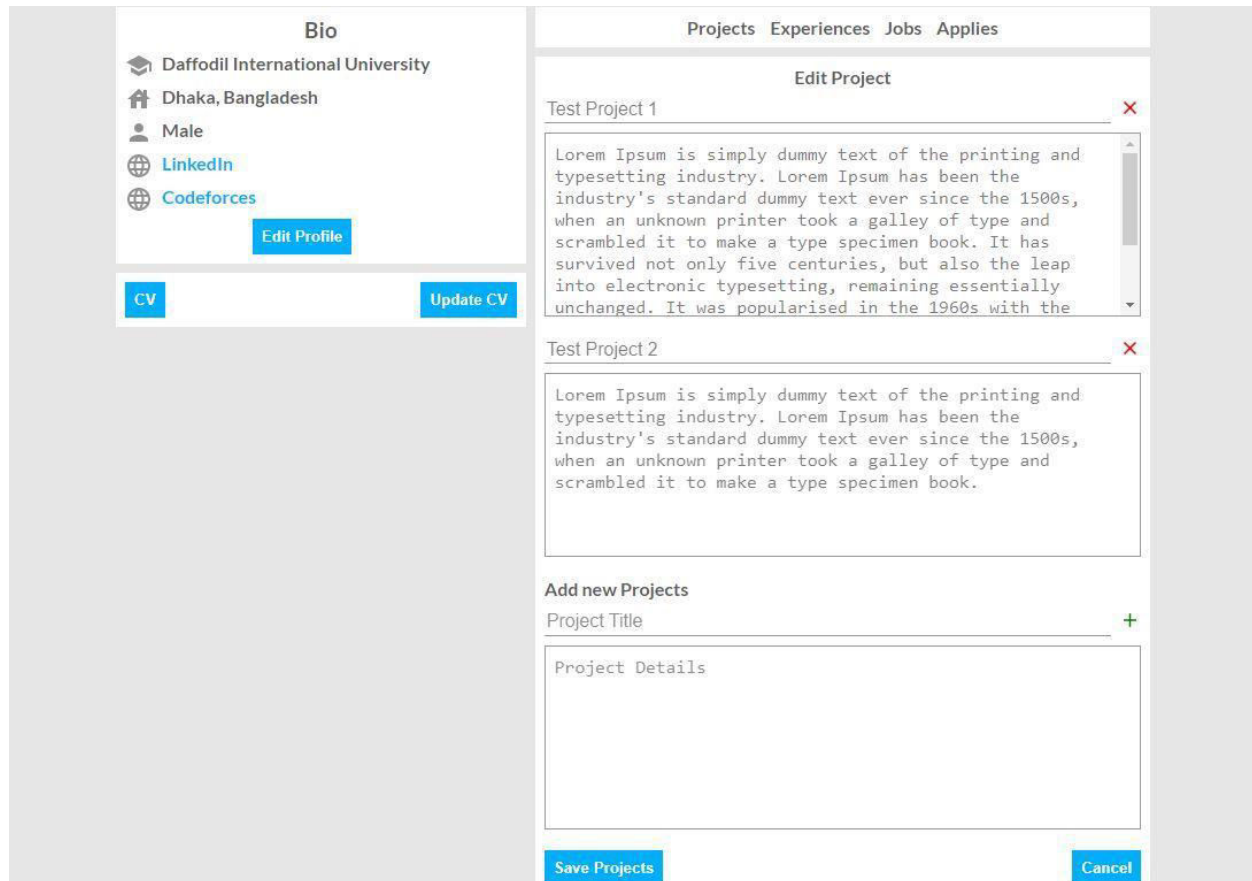
Fig 3.7: Edit Project Page

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3.2.3.4 Experiences Page

This section shows the user all previous experiences. All experiences contain Title and description like experiences details, institute name, experience year.
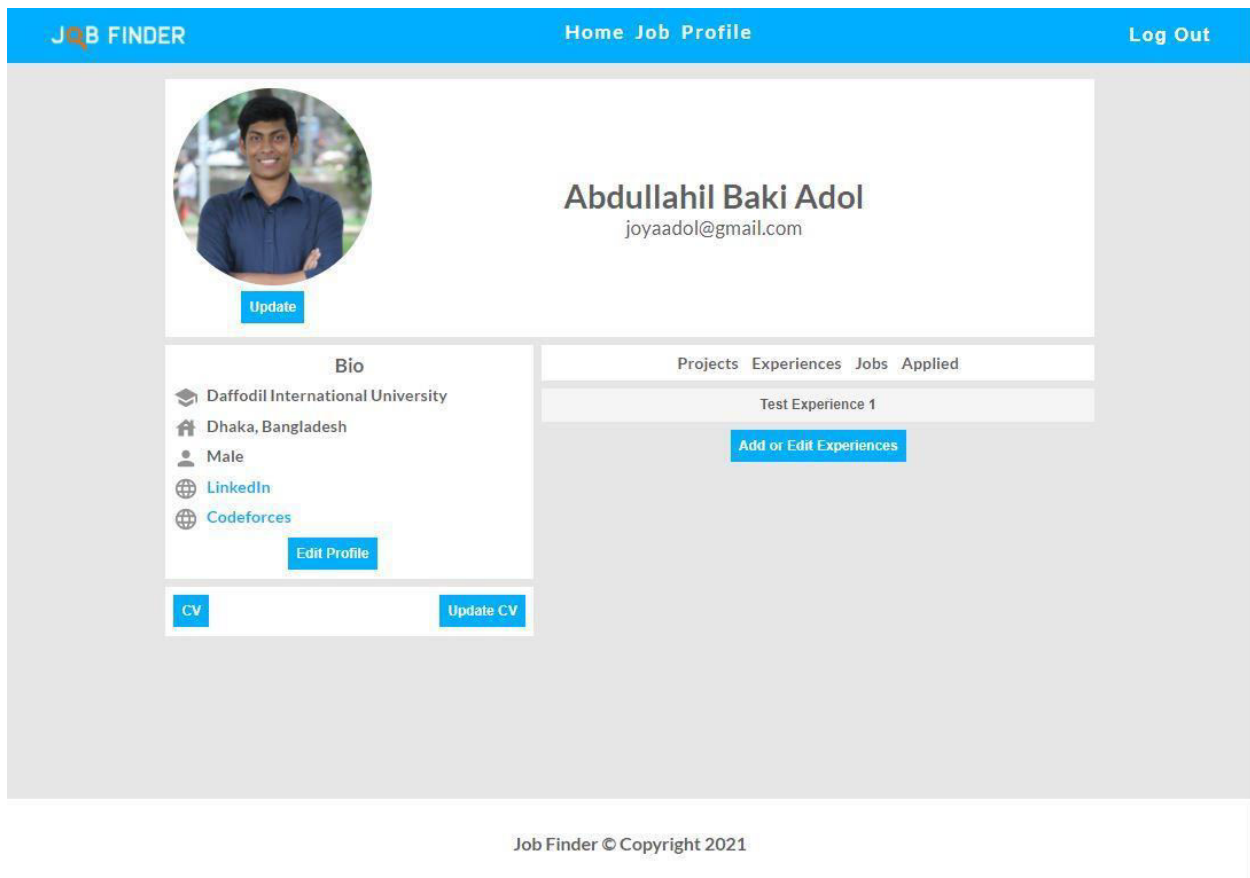
Fig 3.8: Experiences Page

3.2.3.5 Edit Experiences Page

In this section this user is able to add new experience and edit all previously added experiences. If author check applicant profile, then he/she can see their all experience. It will be very helpful to the author for their company or organization.
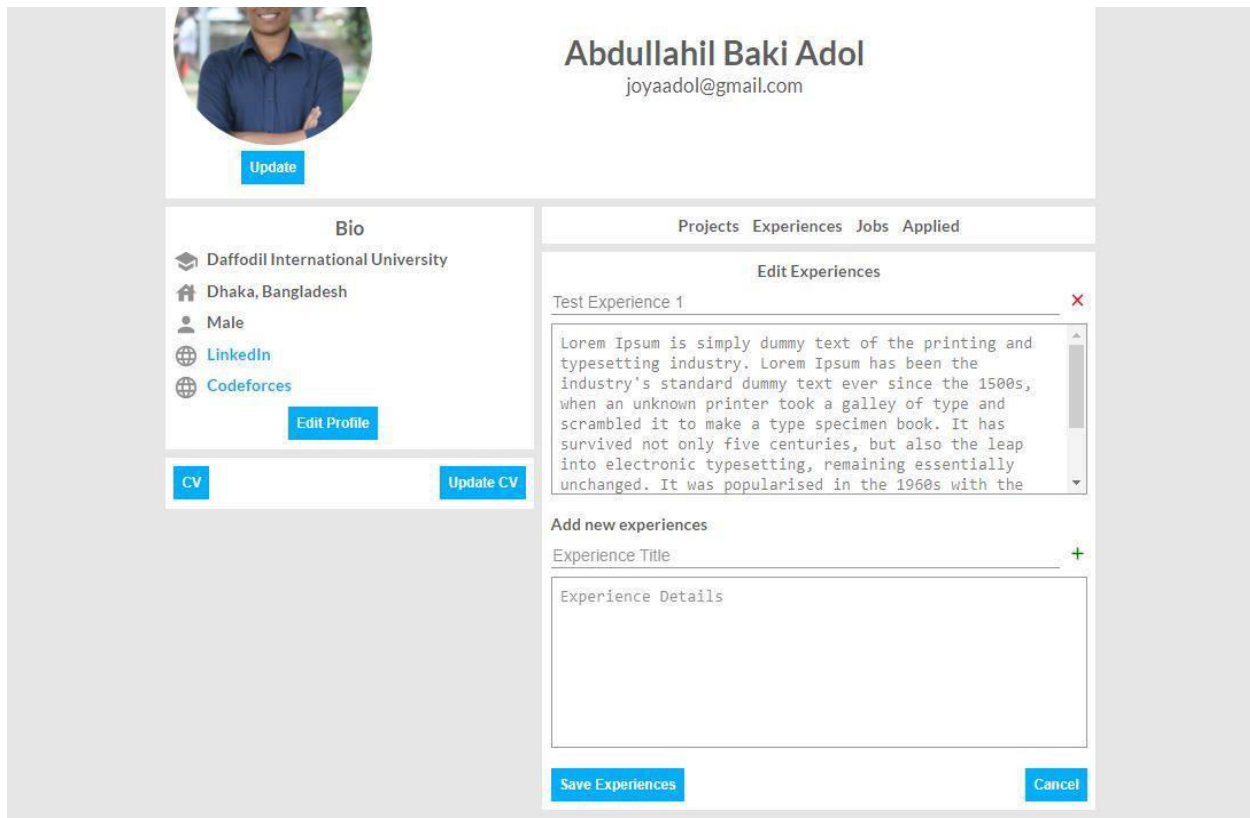
Fig 3.9: Edit Experiences Page

3.2.3.6 My Jobs Page

This section contains all jobs posted by this user. And only here users can start filtering applicants for every particular job.
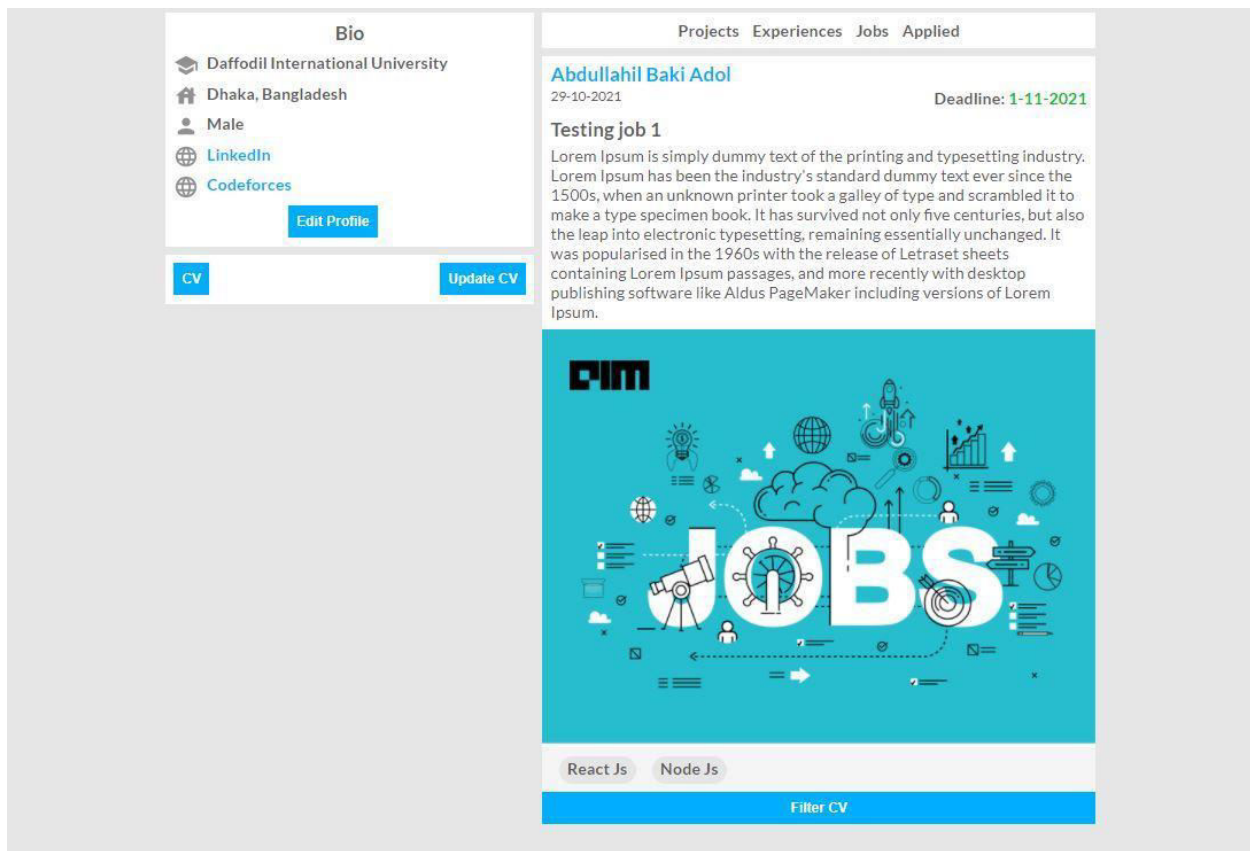
Fig 3.10: My Jobs Page

3.2.3.7 My Applied Jobs Page

This section contains all jobs applied by this user. In this page users can see in which organization he/she already applied. We can say this is a short review page.
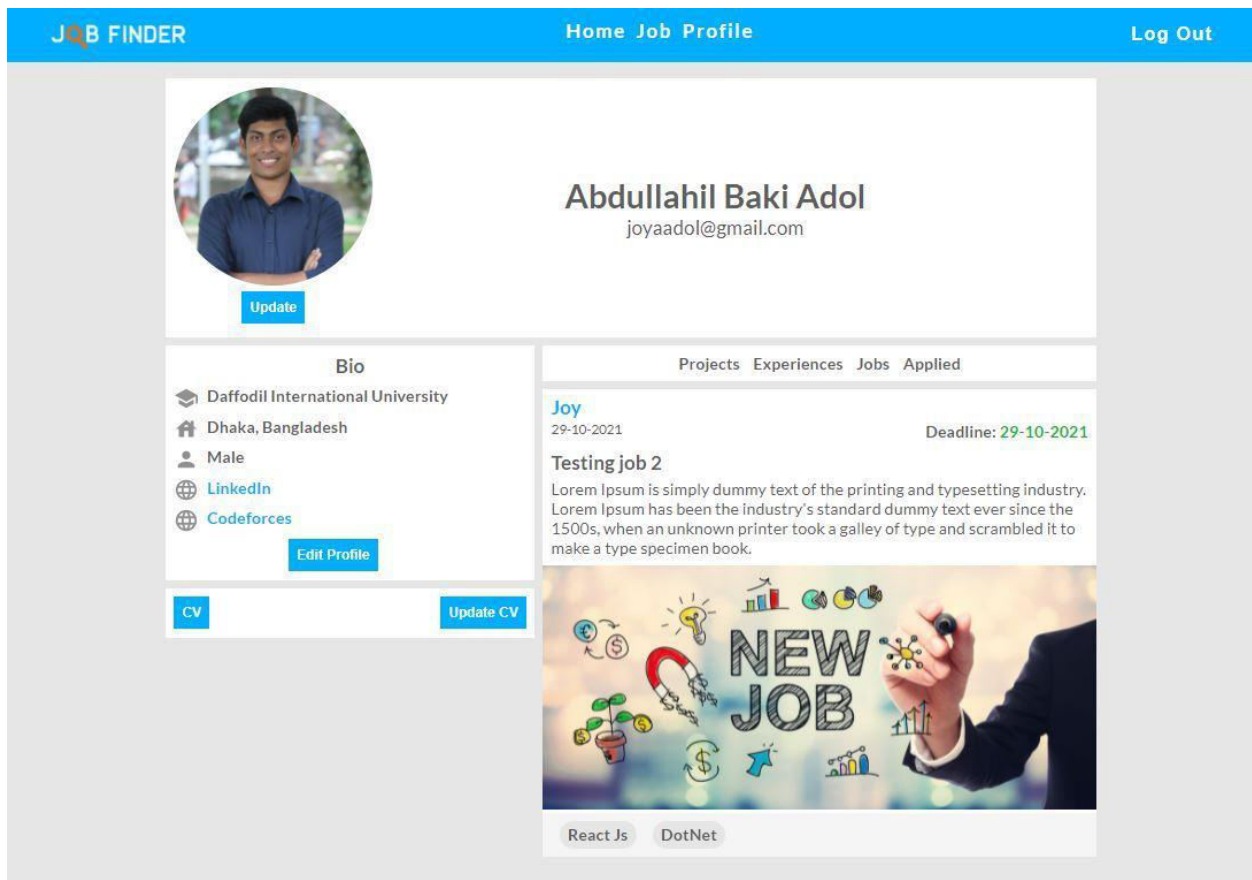
Fig 3.11: My Applied Jobs Page

3.2.4.1 Jobs Page

This section contains all posted jobs. Each job contains Job title, job description, probably image, deadline and requirement categories.
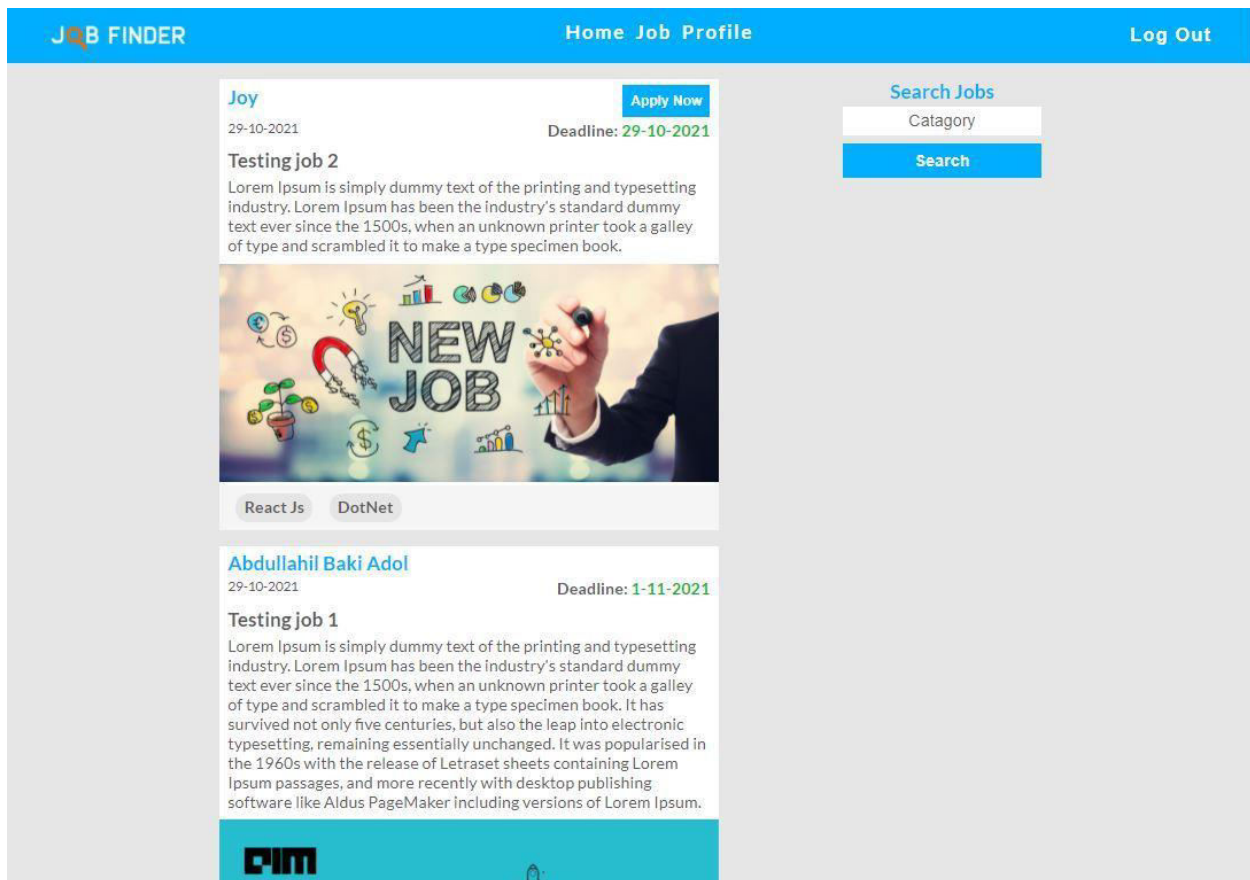
Fig 3.12: Jobs Page

3.2.4.2 Search Jobs Page

This section is a part of the job section. Users are able to search jobs by categories which match those job categories.

Fig 3.13: Search Jobs Page

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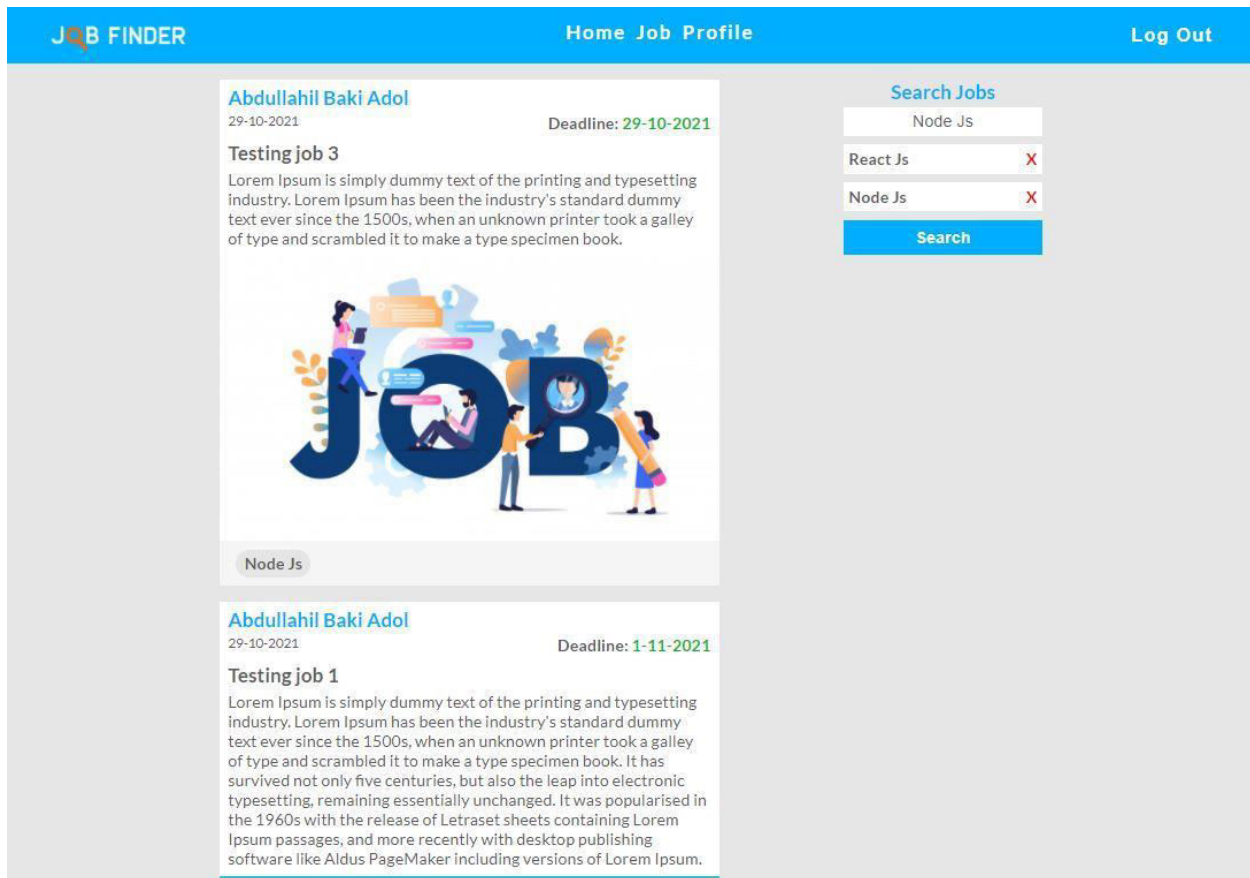
3.2.4.3 Apply Job Page

By clicking a particular job, the user can apply for this job. For applying for this job users need a CV and user skills list.
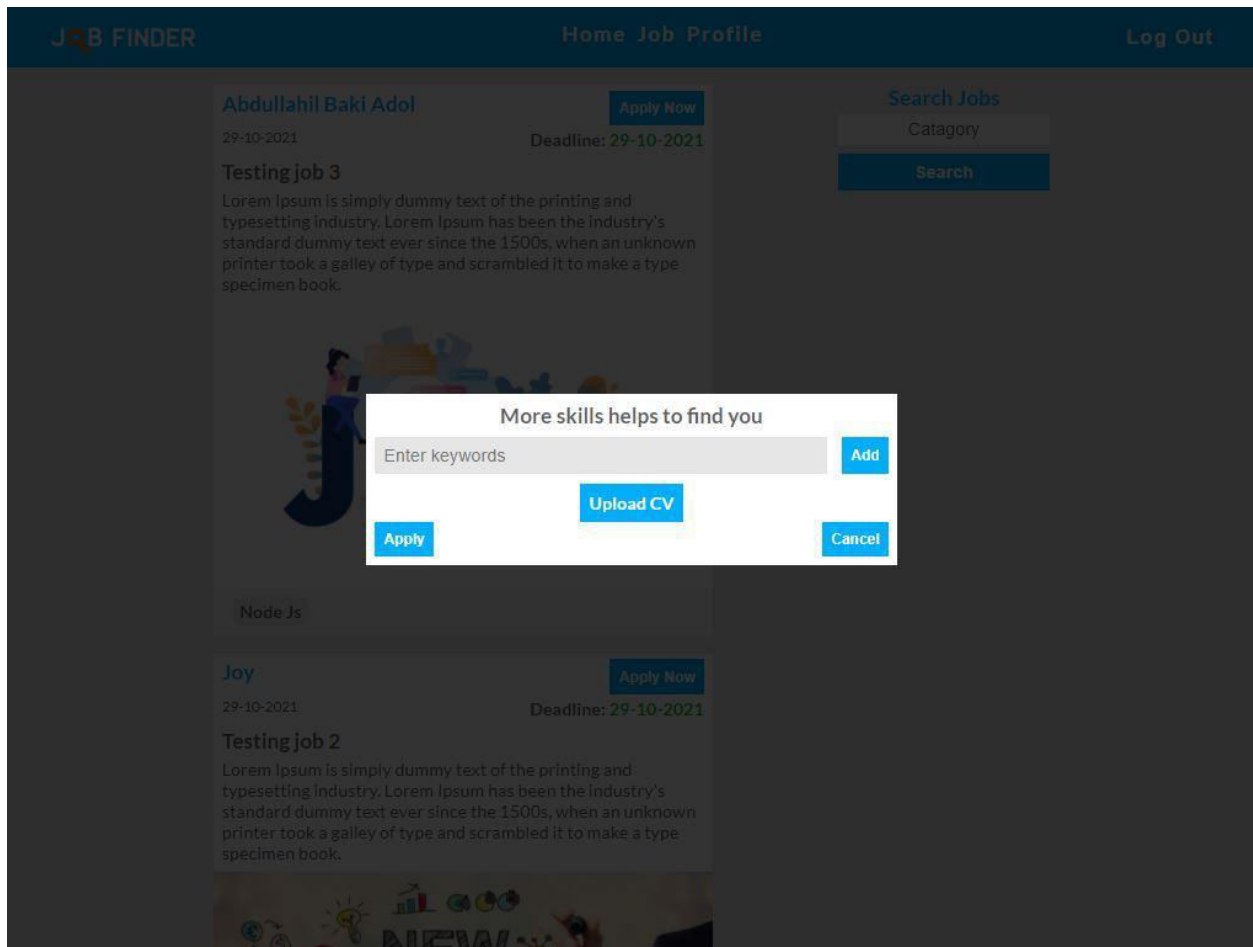
Fig 3.14: Apply Job Page

3.2.5 Filter Applicants Page

In this section the author of a job can see, filter applicants and see their cv also able to look at all applicants Job Finder profile. Author will filter applicants by their requirements skills matched with applicant skills. Author is also able to mark and unmarked applicants. An author can see an applicant CV in one click.

Fig 3.15: Filter Applicants Page

CHAPTER 4
CONCLUSION AND UPDATE IN FUTURE

5.1 Conclusion

Now we are living in a digital world, that is fully dependent on technology and it is changing every day. We want everything on the internet. That is why we have made this project to add something to the digital world. Our project will help an author to select an important CV. They can filter a candidate's CV by keywords. We hope this project will be helpful to the applicant and job provider to find a good job as well as to select a skilled candidate. Thro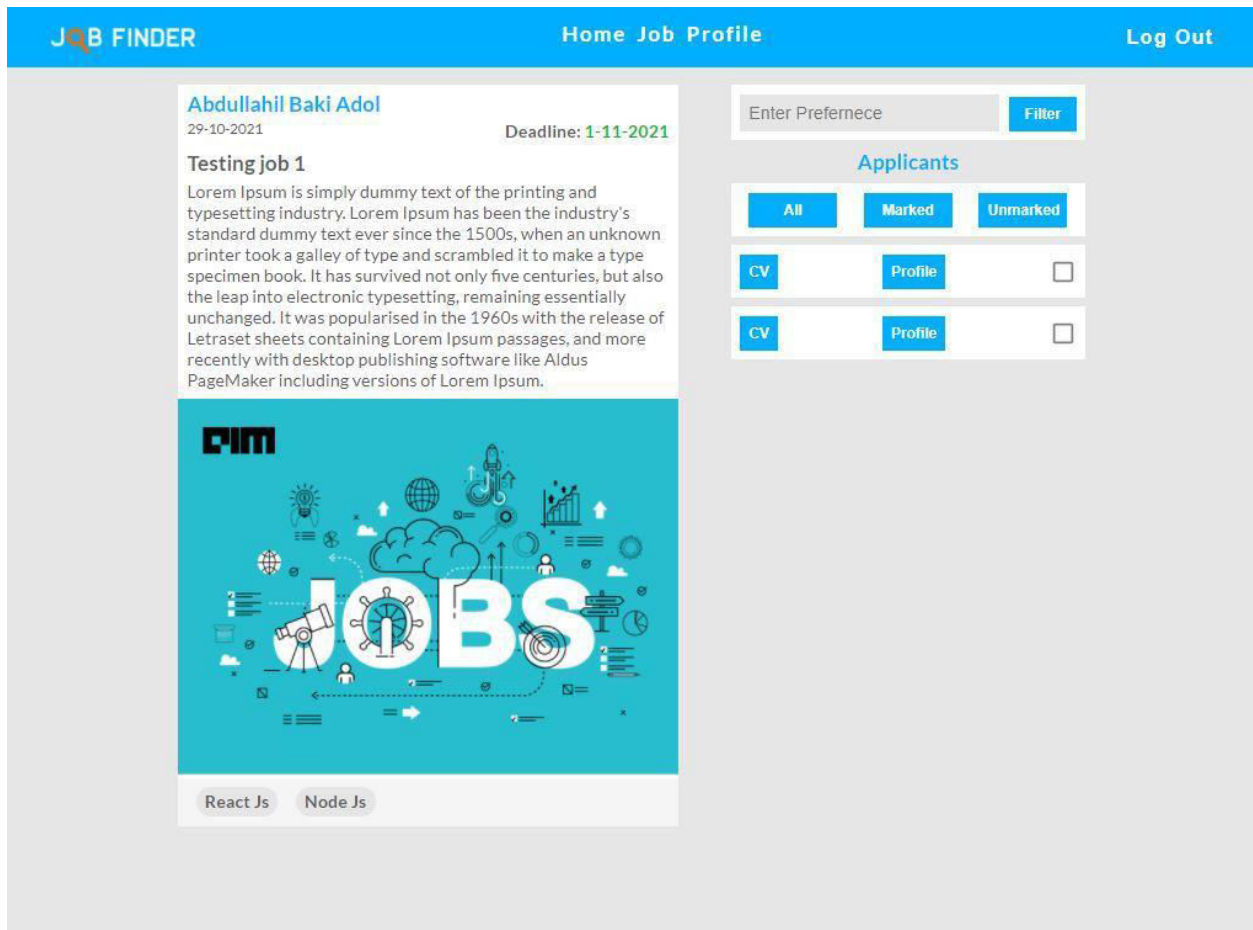ugh this project, we have learned HTML, CSS, JavaScript, MongoDB, React.js, Node.js, and Express.js for web design and development. To develop this project, we had to know and learn some important things that will help us in our professional life.

5.2 UPDATE IN FUTURE

In the future, we can update our project by adding new features. And there are many future scopes in this project. We can add other features so that the users may have a good user experience without any difficulties. In the future we can add the location of the organization by using google maps, we can add job preparation guidelines, we can add alarm buttons that remind the candidate exam date, etc. We will add a dark theme to the website.

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