

CSE471: System Analysis and Design Project Report Project Title: Online Job Portal

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Table of Contents

Section No	Content	Page No
1	Introduction	2
2	Functional Requirements	3
3	User Manual	4-12
4	Frontend Development	13-30
5	Backend Development	31-45
6	Technology (Framework, Languages)	45
7	Github Repo Link	45
8	Individual Contribution	46

Introduction

We worked on an exciting online job portal project that aims to change how people find jobs in Bangladesh. In our rapidly growing digital world, our platform acts like a helpful bridge connecting people looking for jobs with companies that are hiring. Our main goal is to make hiring and getting hired easier by creating a website that anyone can use easily, whether they are looking for a job or looking to hire someone. We focused on making the experience good for users and efficient. Our project includes cool features like showing real-time job numbers, creating personal profiles, and an easy way to apply for jobs. We used the latest technologies to make sure our website can run smoothly. This way, it can keep up with the needs of our fast-paced job world. The project is all about making the job market in Bangladesh more connected and efficient, providing a space where job seekers and employers can easily find each other.

Project Summary

In this project, we developed a frontend and backend web application through which, a job seeker can seek for a job and an employer can hire a skilful job seeker. Job seekers can see the different circulars of the different companies. He will have a profile where he can add all his professional information, even he can add his CV, and can apply through the system. As an employer, one can have a profile, he can see job seekers' profiles and see the list of applicants. A job seeker or employer before registration to the system can see the live statistics where he/she can see the total number of job seekers, the total number of employers and the total number of circulars published to date.

Functional Requirements

Module-1: User registration and authentication

- 1. Seeker's Registration
- 2. Employer's Registration
- 3. User login and logout
- 4. Forgot password
- 5. Verify mail

Module-2: Seeker's Profile

- 6. CV Add/Update
- 7. CV Download
- 8. Add Name, address, Bio, etc
- 9. Add and update Profile picture
- 10. Profile view count

Module-3: Employer's Profile

- 11. Post a Circular
- 12. Set Time limits for circulars
- 13. Show all the Job Circulars, Edit the Circular, Delete
- 14. Add Name, Profile picture, About etc.
- 15. View Applicants and their Profile.

Module-4: User feed

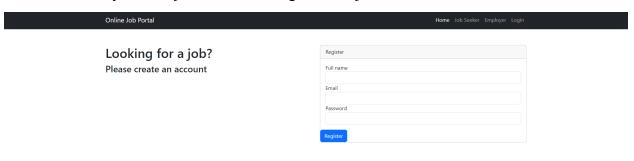
- 16. Filtering
- 17. Searching
- 18. Easy Apply
- 19. Live statistics
- 20. Contact us

User manual:

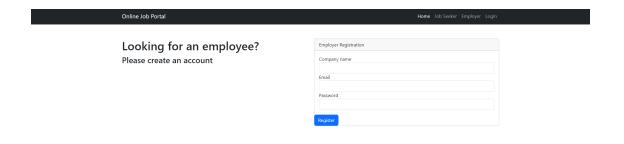
A. New user guide:

1. Register as a job seeker or an employer.

If you are a job seeker then register as a job seeker.



Otherwise, register as an employer.



2. **Verify** your **email** before you log in for the first time.

You will see a text that reminds you to verify first.

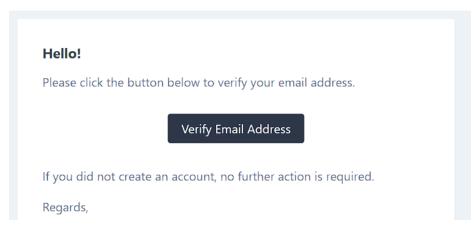
verify before first login

If you log in without verification, you will see this message.

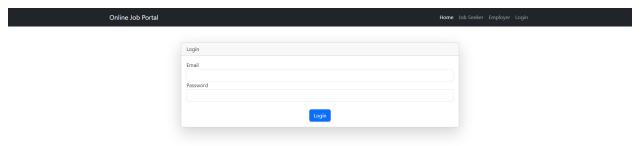
Verify Acount

Your account is not verified. Please check your email and click on the link to verify your account.

Go check your email inbox, and verify your email.



3. Now you can **log in** and have full access. Login as a job seeker or employer.

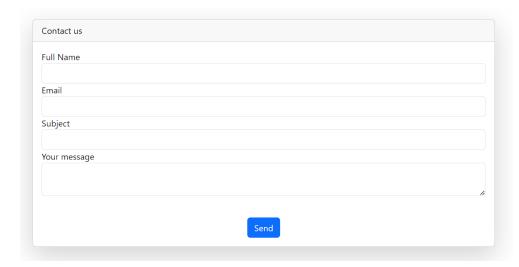


4. From the navigation bar, you can go see your profile, log out, contact us, and redirect to the home page.

Online Job Portal Home Eggout

a. Contacting us

You can share your concerns with us through this form. Make sure you add your account's email address if you need help regarding your account.



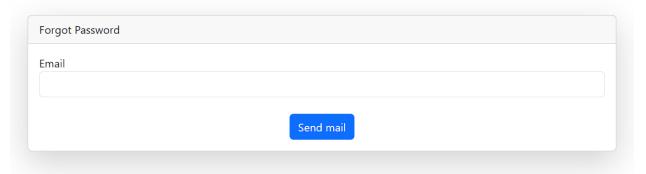
b. Logging out

You can logout after you are done with your account. The logout button will redirect you to the home page

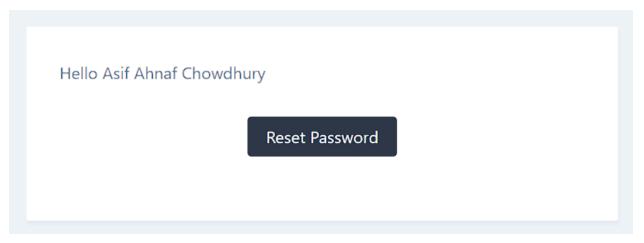


5. Set a new **password** if you have **forgotten** it. It happens to the best of us. Do not worry!

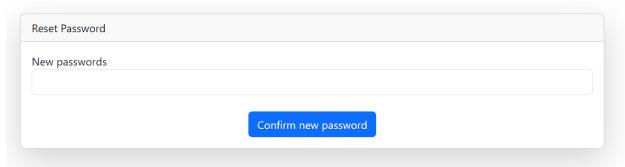
Just put your account's email address in the form shown below;



Check your email inbox to set up a new password by clicking Reset Password.



Here enter your new password, and confirm.



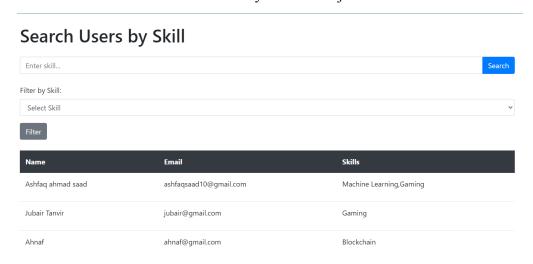
You should log in with your new password afterwards.

6. Also on the home page, you will see live statistics.



B. Seeker's guide:

As a seeker, you can view the list of every circular on our website.
 You can search and filter for your desired jobs



Search Results for "Gaming"

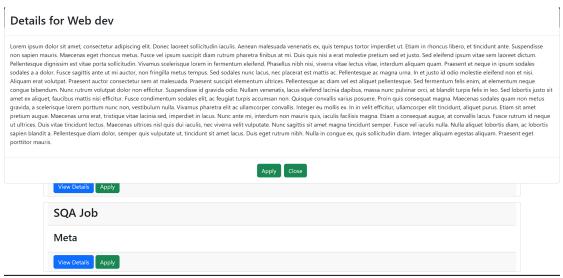


C. Easily apply to the circulars.

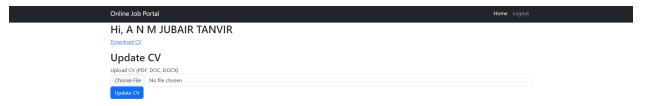
From the circular list, you can directly apply for the jobs you like by pressing the apply button.



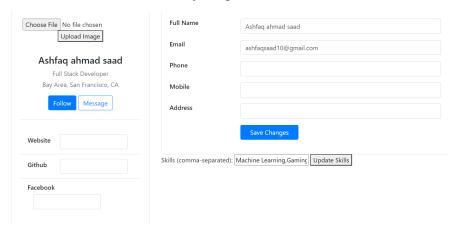
Or, you can see the details by pressing 'view details' and then pressing the apply button.



- 2. Edit your profile to grab the attention of our employers.
 - a. How to add, download, and edit your CV



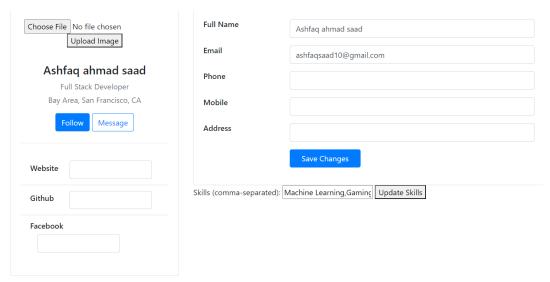
b. How to edit information in your profile



3. Look at the **view count** on your profile to know how many employers took an interest in you.



- C. Employer's guide:
 - 1. Edit your profile to uphold your company.



- 2. Announce circulars to our webpage.
 - a. How to **post circulars**.

Click the button to post a job circular.

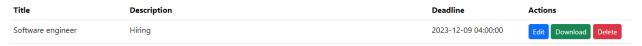
Post a Job Circular

b. Set a **time limit** on the circulars.



c. You can also edit circulars afterwards.

By clicking on the edit button you can edit the current job posting.

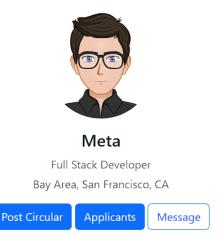


d. View the list of your circulars



3. View the list of applicants and their profiles.

Click the Applicants button



From this list, you can click on any Gmail and it will take you to the applicant's profile

Applicants

- asif.ahnaf.chowdhury@g.bracu.ac.bd
- asif.ahnaf.chowdhury@g.bracu.ac.bd
- asif.ahnaf.chowdhury@g.bracu.ac.bd
- asif.ahnaf.chowdhury@g.bracu.ac.bd

Frontend Development

1. A N M Jubair Tanvir

Home page: In this section there is a hero image with a title. This page represents what the system is about.

Employer's Registration: From the page an employer can register to the system. After completing the registration, he will be able to login and update his profile information. Without registration, he can't login to the system.

```
div class="container mt-5":
   <div class="row">
       <div class="col-md-6">
          <h1>Looking for an employee?</h1>
           <h3>Please create an account</h3>
       <div class="col-md-6">
          <div class="card">
               <div class="card-header">Employer Registration</div>
               <form action="{{route('store.employer')}}" method="POST">@csrf
               <div class="card-body">
                   <div class="form-group">
                      <label for="">Company name</label>
                       <input type="text" name="name" class="form-control">
                      @if ($errors->has('name'))
                      <span class="text-danger">{{$errors->first('name')}}</span>
                       @endif
                   <div class="form-group">
                       <label for="">Email</label>
                       <input type="text" name="email" class="form-control">
                       @if ($errors->has('email'))
                       <span class="text-danger">{{$errors->first('email')}}</span>
                   <div class="form-group">
                      <label for="">Password</label>
                       <input type="password" name="password" class="form-control">
                       @if ($errors->has('password'))
                      <span class="text-danger">{{$errors->first('password')}}</span>
                   <div class="form-group">
                       <button class="btn btn-primary" type="submit">Register</button>
```

User login and logout: A user who is a job seeker or employer can login to the system. From this page, a user can login as a job seeker or an employer. But before that, a user must have to register as a job seeker or an employer. After he/she is done, he/she can logout. After the logout, the system will redirect to the login page again.

```
section('content')
div class="container mt-5">
  <div class="row justify-content-center">
      <div class="col-md-8">
          <div class="card shadow-lg">
              <div class="card-header">Login</div>
              <form action="{{route('login.post')}}" method="post">
                  @csrf
                  <div class="card-body">
                      <div class="form-group">
                          <label for="">Email</label>
                          <input type="text" name="email" class="form-control">
                          @if($errors->has('email'))
                          <span class="text-danger">{{ $errors->first('email')}}</span>
                      <div class="form-group">
                          <label for="">Password</label>
                          <input type="password" name="password" class="form-control">
                          @if($errors->has('password'))
                          <span class="text-danger">{{ $errors->first('password')}}</span>
                      <div class="form-group text-center">
                          <button class="btn btn-primary" type="submit">Login</button>
```

CV add, update and download: A Job seeker can update his profile. As a part of that, he can add his CV, update his CV and download it.

Post a Circular: An employer can post a job circular. He can post a job circular and by viewing it an applicant can apply for the particular job. Applicants can also see the deadline of the circular and see the job requirements. Employers can set the deadline.

Set Time limits for circulars, Show all the Job Circulars, Edit the Circular, Delete: On this page all the job circulars that are posted by the employer are shown. An employer can delete the existing job circulars. He/she can also edit the existing job circulars. The system will automatically delete the circulars after the deadline.

```
<div class="text-center mb-3 mt-3">
   <a href="{{ route('employer.job_circular.create') }}" class="btn btn-primary btn-lg">Post a Job Circular</a>
<h2 class="text-center mb-3">Your Job Circulars</h2>
Title
           Description
           Deadline
           Actions
    </thead>

        @foreach ($jobCirculars as $jobCircular)
                {{ $jobCircular->title }}
                {{ $jobCircular->description }}
                {{ $jobCircular->deadline }}
                    da href="{{ route('employer.job_circular.edit', $jobCircular) }}" class="btn btn-sm btn-primary">Edit</a>
da href="{{ route('employer.job_circular.download', $jobCircular) }}" class="btn btn-sm btn-sm btn-smccess">Download</a>
                    <form class="d-inline" action="{{ route('employer.job_circular.destroy', $jobCircular) }}" method="post">
                        @csrf
                        @method('delete')
                        <button type="submit" class="btn btn-sm btn-danger" onclick="return confirm('Are you sure you want to delete thi:</pre>
```

Live Statistics: In this section, anyone can see the total number of job seekers, the total number of employers and the total number of circulars published to date. He/she will see this in graphical format.

```
@extends('layouts.app')
@section('content')
   <div class="hero-section">
       <img src="{{ asset('image/pexels-william-fortunato-6140676.jpg') }}" alt="Welcome Image" class="img-fluid hero-image">
       <h2 class="text-white hero-title">Welcome to The Largest Online Job Portal of Bangladesh</h2>
   <div class="container mt-5">
       <h2 class="text-center mb-4">
           <span class="badge bg-primary">Live</span>
           <span class="badge bg-secondary">Statistics</span>
       <div class="row justify-content-center">
           <div class="col-md-6 mb-4">
               <canvas id="jobSeekersChart"></canvas>
           <div class="col-md-6 mb-4">
               <canvas id="employersChart"></canvas>
           <div class="col-md-6 mb-4">
               <canvas id="jobCircularsChart"></canvas>
```

2. Ashfaq Ahmad Saad

2.1 Seeker's Registration: This registration blade file helps the user complete the registration process. This takes inputs such as email and password and stores them in the profile table.

```
gections('layouts.app')
gection('content')

div class'*container st.3")
    div class'*container st.3"

    div class'*co
```

2.2 Seeker's Profile:

This Blade template code creates a user profile page using Bootstrap styles. It displays the user's personal information, including a profile picture, name, role, and contact details. The template includes links to the user's website, GitHub, and Facebook accounts. An "Edit" button redirects to a route for profile editing. The page also shows the user's skills if available, presenting them in a visually organized manner. The overall design is clean and user-friendly, following Bootstrap conventions for a responsive and visually appealing layout.

2.3. Edit page: This Blade template code is designed for a user profile editing page. It uses Bootstrap for styling and includes a form to upload a profile picture. The page is divided into two main sections: the left section displays the user's basic information, including an editable form for updating links to the website, GitHub, and Facebook. The right section contains a form for updating personal details like name, email, phone, mobile, and address. There is also an option to update the user's skills, displayed as a comma-separated list.

In summary, this template provides a comprehensive interface for users to edit and update their profile information, including a profile picture, contact links, and personal details. The use of Bootstrap ensures a clean and responsive design.

2.4. Filter and search page:

This Blade template creates a user interface for searching and filtering users based on their skills. It includes a search bar and a skill filter dropdown, and displays search results in a table with columns for name, email, and skills. The design is enhanced with Bootstrap styling and JavaScript libraries such as jQuery and Popper.js for improved interactivity. Overall, it provides a user-friendly way to explore and filter user profiles by skill set.

2.5 Search Result page: This Blade template generates a search results page for users based on a specified skill query. It displays the results in a table format, including columns for name and email. The design is styled with Bootstrap, and the template provides a message if no results are found. Overall, it offers a clean and organized presentation of user search outcomes.

2.6 Employer's Profile: This Blade template code creates a user profile page using Bootstrap styles. It displays the user's personal information, including a profile picture, name, role, and contact details. The template includes links to the user's website, GitHub, and Facebook accounts. An "Edit" button redirects to a route for profile editing. The page also shows the user's skills if available, presenting them in a visually organized manner. The overall design is clean and user-friendly, following Bootstrap conventions for a responsive and visually appealing layout.

```
clink rel='stylesheet' href='https://cdn.jsdelivr.net/npm/bootstrap@4.4.1/dist/css/bootstrap.min.css'>

cscript src='https://cdn.jsdelivr.net/npm/bootstrap@4.4.1/dist/js/bootstrap.bundle.min.js'></script>

cdiv class="container">

cdiv class="neadcrumb">

cdiv class="neadcrumb-item">

cdiv class="neadcrumb-item">

cdiv class="neadcrumb-item">

cdiv class="neadcrumb-item active" aria-current="page">

cdiv class="n
```

3. Asif Ahnaf Chowdhury

Unverified users will trigger this frontend after logging in

Contact Us form:

After contacting our mail will receive the mail in the following structure:

Forgot password:

User will get a mail in the following structure:

```
@component('mail::message')
Hello {{ $user->name }}
@component('mail::button', ['url' => url('reset/'.$user->remember_token)])
Reset Password
@endcomponent
@endcomponent
@endcomponent
```

Password reset:

Easy apply:

View details then apply:

Seeker's view count:

Applicant list:

Show applicant's profile:

Backend Development

4. A N M Jubair Tanvir

Employer's Registration: Given the required information, the user can register as an employer. For this, a createEmployer() function is created. Another function is storeEmployer(). This function stores all the information of the employer in the central database. The information is stored in the user table of the database based on user type. If the user type is employer then he/she will be stored as an employer.

```
1 reference | 0 overrides
public function createEmployer()
{
    return view('user.employer-register');
}
```

User login and logout: A user can login based on his user type. By checking the user type from the stored information in the database, one can login. If the user is already registered, then the system will check this authentication. For this, the auth() function is used. If the user is seeker then the system will redirect to his profile and if the user is an employer, the system will redirect the user to his profile. If the given information is wrong or false by the user the then system won't let him/her to login.

```
1 reference | 0 overrides
public function login()
{
    return view('user.login');
}
```

```
1 reference | 0 overrides
public function logout()
{
    auth()->logout();
    return redirect()->route('login');
}
```

CV add, update and download: To add CV there is a function named updateCV(). This function stores the CV and can update.

Set Time limits for circulars, Show all the Job Circulars, Edit the Circular, Delete: To implement these features there are several functions. There are store, update and download functions to do so.

```
public function index()
   $jobCirculars = JobCircular::where('employer_id', Auth::id())->orderBy('created_at', 'desc')->get();
   return view('employer.job_circular.index', compact('jobCirculars'));
   return view('employer.job_circular.create');
public function store(Request $request)
   $request->validate([
        'title' => 'required|string',
        'description' => 'required|string',
        'deadline' => 'required|date',
   $jobCircular = new JobCircular([
    'employer_id' => Auth::id(),
        'title' => $request->input('title'),
        'description' => $request->input('description'),
        'deadline' => $request->input('deadline'),
   $jobCircular->save();
   Artisan::call('schedule:run');
   return redirect()->route('employer.job_circular.index')->with('success', 'Job circular created successfully.');
```

```
2 references | 0 overrides
public function download(JobCircular $jobCircular)
{
    $file = storage_path('app\\circulars\\' . $jobCircular->id . '.pdf');
    return response()->download($file, 'JobCircular.pdf');
}
```

Live Statistics: There is a function named index. This function counts the number of job seekers, employers and circulars. To do that, it uses the count() function.

```
2 references | 0 implementations
class StatisticsController extends Controller
{
    1 reference | 0 overrides
    public function index()
    {
        $totalJobSeekers = User::where('user_type', 'seeker')->count();
        $totalEmployers = User::where('user_type', 'employer')->count();
        $totalCirculars = JobCircular::count();
        return view('statistics.index', compact('totalJobSeekers', 'totalEmployers', 'totalCirculars'));
    }
}
```

5. Ashfaq Ahmad Saad

5.1 Seeker's Registration: These PHP functions, storeSeeker and storeEmployer, are part of a Laravel application for user registration. They validate input data for name, email, and password, create new users with hashed passwords, set user types for job seekers and job posters respectively, send email verification notifications, and redirect users to the login route after successful registration.

```
public function storeSeeker()
     r = User::create([
'name' => request('name'),
'email' => request('remail'),
'password' >> bcrypt(request('password')),
'user_type' => self::JOB_SEEKER
                                                                                            request()->validate([
                                                                                                   'name'=> ['required','string','max:250'],
                                                                                                  'email' => ['required','string','email', 'max:250', 'unique:users'],
                                                                                                   'password'=> ['required']
$user->sendEmailVerificationNotification();
return redirect()->route('login');
                                                                                            $user = User::create([
                                                                                                  'name' => request('name'),
                                                                                                  'email'=> request('email'),
                                                                                                   'password'=> bcrypt(request('password')),
                                                                                                   'user type' => self::JOB SEEKER
     password'=> bcrypt(request('password')),
user_type' => self::JOB_POSTER
                                                                                            $user->sendEmailVerification();
                                                                                            return redirect()->route('login');
$user->sendEmailVerificationNotification();
return redirect()->route('login');
```

5.2 Seeker's Profile:

This PHP function, show, is part of a Laravel application. It retrieves a user profile from the database based on the provided email address. If the profile is not found, it returns a 404 error. Otherwise, it renders a view ('products.home') with the retrieved profile data.

```
class ProfileController extends Controller

public function show($email){
    $profile = Profile::where('email', $email)->first();
    if (!$profile) {
        abort(404);
    }
    return view('products.home', ['profile' => $profile]);
}
```

- **5.3**. Edit page: This set of functions is part of a Laravel application's ProfileController. Here's a summary of each function: change(Profile \$profile):
- 1. Renders a view ('products.change') to update user profile information. update(Profile \$profile, Request \$request):
- 2. Validates and updates profile information based on the provided request data. Redirects to the updated profile view with a success message. dpshow(\$email):
- 3. Retrieves a user profile based on the provided email address. Renders the 'profiles.show' view with the profile data. uploadImage(Request \$request, \$email):
- 4. Validates and uploads a user's profile image.
 Updates the profile with the image path and redirects to the profile view with a success message.
 updateSkills(Profile \$profile, Request \$request):
- 5. Validates and updates user skills based on the provided request data.

Redirects to the profile view with a success message after the update.

```
public function change(Profile $profile){
        return view('products.change',['profile' => $profile]);
   public function update(Profile $profile, Request $request)
   $data = $request->validate([
        'email' => 'required|email|unique:profiles,email,' . $profile->id,
        'name' => 'nullable|string',
         'phone' => 'nullable|integer',
'mobile' => 'nullable|integer'
        'address' => 'nullable|string',
         'web' => 'nullable|string',
         'git' => 'nullable|string',
         'fab' => 'nullable|string',
    $profile->update($data);
   return redirect(route('profiles.show', ['email' => $data['email']]))->with('success', 'Profile Updated Successfully');
public function dpshow($email)
        $profile = Profile::where('email', $email)->first();
        if (!$profile) {
            abort(404);
        return view('profiles.show', ['profile' => $profile]);
    public function uploadImage(Request $request, $email)
```

5.4.Filter and search page:search(Request \$request):

A.This function handles a search based on a user-provided query for skills. It retrieves the query from the request, searches the 'skills' attribute in the 'Profile' model using the 'LIKE' operator, and retrieves the results.

The results, along with the original query, are then passed to the 'search.results' view.

index(Request \$request):

B. This function is associated with an index page that allows filtering profiles based on skills.

It retrieves a filter value from the request and applies it to the 'skills' attribute in the 'Profile' model using the 'LIKE' operator.

The filtered records are then passed to the 'search.index' view along with a list of all distinct skills available in the profiles.

5.5 Search Result page:

The search function is part of a Laravel application and performs a search based on a user-provided query. It uses the Profile model to search for profiles where the 'skills' attribute contains the specified query. The search results, along with the original query, are then passed to the 'search.results' view for display.

```
public function search(Request $request)
{
    $query = $request->input('query');
    $results = Profile::where('skills', 'LIKE', '%' . $query . '%')->get();
    return view('search.results', compact('results', 'query'));
}
```

2.6 Employer's Profile: This PHP function, show, is part of a Laravel application. It retrieves a user profile from the database based on the provided email address. If the profile is not found, it returns a 404 error. Otherwise, it renders a view ('products.home') with the retrieved profile data.

```
class ProfileController extends Controller
{
   public function show($email){
        $profile = Profile::where('email', $email)->first();
        if (!$profile) {
            abort(404);
        }
        return view('products.home', ['profile' => $profile]);
    }
}
```

6. Asif Ahnaf Chowdhury

6.1. Verify email address

After a new user is updated to our database we send a default verification mail by Laravel to verify our user and give them other accesses.

```
$user->sendEmailVerificationNotification();
return redirect()->route('login');
}
```

Verifying: The email generates a hash function and sends it along with user's id. Laravel's middleware matches these data with the DB and verifies the user.

```
Route::get('/email/verify/{id}/{hash}', function (EmailVerificationRequest $request) {
    $request->fulfill();

    return redirect('/dashboard');
})->middleware(['auth', 'signed'])->name('verification.verify');
```

We give access to the dashboard after checking if the user is verified:

```
Route::get('/dashboard', [DashboardController::class, 'index'])->middleware('verified')->name('dashboard');
Route::post('/dashboard', [DashboardController::class, 'apply'])->name('apply');
Route::get('/verify', [DashboardController::class, 'verify'])->name('verification.notice');
// ahnaf
```

6.2. Contact us

Through a given form, users can contact the website's official email. We have used Laravel's Mail support whenever mail needs to be delivered.

Setting up constraints in Contact Us form request as most email services provide limited storage:

6.3. Forgot Password

Submitting a wrong password and redirecting to 'Forgot password' by checking through auth support:

```
$credentials = $request->only('email','password');

if (auth::attempt($credentials)) {
    return redirect()->intended(route('dashboard'));
}
else
{
    return redirect()->intended(route('password.request'));
}
// return 'Wrong email or password';
}
```

Sending an email to reset password with a token of verification:

Giving access to update password after matching token:

```
Route::get('reset/{token}', [UserController::class, 'reset'])->name('reset');
Route::post('reset/{token}', [UserController::class, 'postReset']);
```

Updating new password to DB and double checking token:

```
reference | 0 overrides
public function postReset($token, Request $request)
{
    $user = User::where('remember_token','=', $token)->first();
    if(!empty($user)){
        $user->password = Hash::make($request->password);
        if(empty($user->email_verified_at)){
            $user->email_verified_at = date('Y-m-d H:i:s');
        }
        $user->remember_token = Str::random(60);
        $user->save();
        return redirect()->route('login');
    }
    else
    {
        abort(404);
    }
}
```

6.4. Easy apply

Seeker applying and automatically sending their information to the employer.

6.5. View count

Updating seeker's views every time an employee visits their profile:

6.6. View Applicants and their Profile

Getting the list of applicants who applied to the current employer's circular:

```
public function list()
{
    $\text{semp} = auth()-\text{suser()};
    $\text{applicants} = Applicant::\text{where('employerEmail', $\text{semp-\text{id}})}
    -\text{get()};
    return view('applicant.list', compact('applicants'));
}
```

Getting the viewer side's access to the profile through seeker's email:

```
Route::get('/view-profile/{email}', [ProfileController::class, 'show'])->name('view-profile');
Route::get('/applicants', [ProfileController::class, 'list'])->name('applicants');
```

Technology (Framework, Languages)

Framework: Laravel

Languages: HTML, CSS, JS, PHP, and MySql.

GitHub Repository

Link: https://github.com/AhnafCh/Job-Portal

Individual Contribution

ID	Name	Contributions (Features)
21301524	A N M Jubair Tanvir	 Module-1:Employer's Registration, User login and logout Module-2: CV Add/Update, CV Download Module-3: Post a Circular, Set Time limits for circulars, Show all the Job Circulars, Edit the Circular, Delete Module-4: Live statistics
21301665	Ashfaq Ahmad Saad	 Module-1:Seeker's Registration Module-2: Add Name, address, Bio, etc, Add and update Profile picture Module-3: Add Name, Profile picture, About etc. Module-4: Filtering, Searching
21301510	Asif Ahnaf Chowdhury	 Module-1: Forgot password, Verify mail. Module-2: Profile view count. Module-3: View Applicants' Profile and CV. Module-4: Easy Apply, and Contact Us.