# A Software Engineering Project
# On

# Placement Cell

*as the partial fulfilment of*

## Semester - VI study

*for the degree of*

## Bachelor of Science (Information Technology)
*(Affiliated to Sarvajanik University)*

*during the academic year 2023-2024.*

**Developed By:**                                    **Guided By:**

1) Dharmesh Yogeshbhai Rathod          Dr. RupalSnehkunj



**Sarvajanik University**
**Shree Ramkrishna Institute of Computer Education and Applied Sciences**

Behind P.T Science College, M.T.B. College Campus, Athwalines, Surat-395 001

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**Shree Ramkrishna Institute of Computer Education and Applied Sciences**
Behind P.T. Science College, M.T.B College Campus, Athwalines, Surat-395 001.

# CERTIFICATE
## DEPARTMENT OF COMPUTER SCIENCE

*This is to certify that*
*Student name*                                                    *Exam no*

Dharmesh Yogeshbhai Rathod                        SR21BSIT142

*has / have successfully completed his / her / their software engineering project work entitled.*

<span style="color:red">Placement Cell</span>

*as the partial fulfillment of*

**Semester -VI study**
*for the degree of*

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*during the academic year 2023-2024.*

_____                                    _____

**Internal Project Guide**                                            **HOD**
                                                                      **Dept. of Computer Science**

**Date: _____**                                      **Place : Surat**

_____

**University Examination:**

**Examination No.: _____**

**Signature of External Examiners: _____**

_____

_____

# Index of the Documentation

# 1.Introduction

# Project Profile

❖ **Project Name:**          Placement Cell

❖**Organization:**          Shree Ramkrishna Institute of Computer Education And Applied Science

❖**Project Category:**     Online Website

❖**Fronted Tool:**         Visual Studio 2022

❖**Backed Tool:**          SQL Server

❖**Language:**              Asp .Net

❖**Operating System:**    Windows 11

❖**Project Guided:**      Dr. Rupal Snehkunj

❖**Develop:**             Dharmesh Rathod

# 2. System Introduction

# ❖ <u>System Definition</u>

- ❖ **Placement Management system is a web application where the students, company and the college User will be logged in into one centralized system. Each one of them must register. to this web application. Later the students must upload their information and upload the resume. The resume will be given ratings and asked for more improvements. if needed.**

- ❖ **Companies willing to conduct the campus placements will upload their information including criteria. Then the students eligible for the company will be given notifications through mails. Through these notifications the stud- dents eligible for the company will get to appear for the aptitude round of the company which will be conducted in this web application itself by the company.**

- ❖ **Later the students clearing the aptitude round will get notifications about the further rounds. Thus, through web application the workload of the TPO is optimized and even the manual. work of the TP cell is reduced. Also, the details of the students will be handled properly and there is no need to maintain papers and do the paperwork.**

# ❖ <u>System Objective</u>

**The main objective of the placement cell is to reduce manual**

**work and time. It is difficult and time-consuming to collect all the**

**details from each student. To avoid this problem, we have**

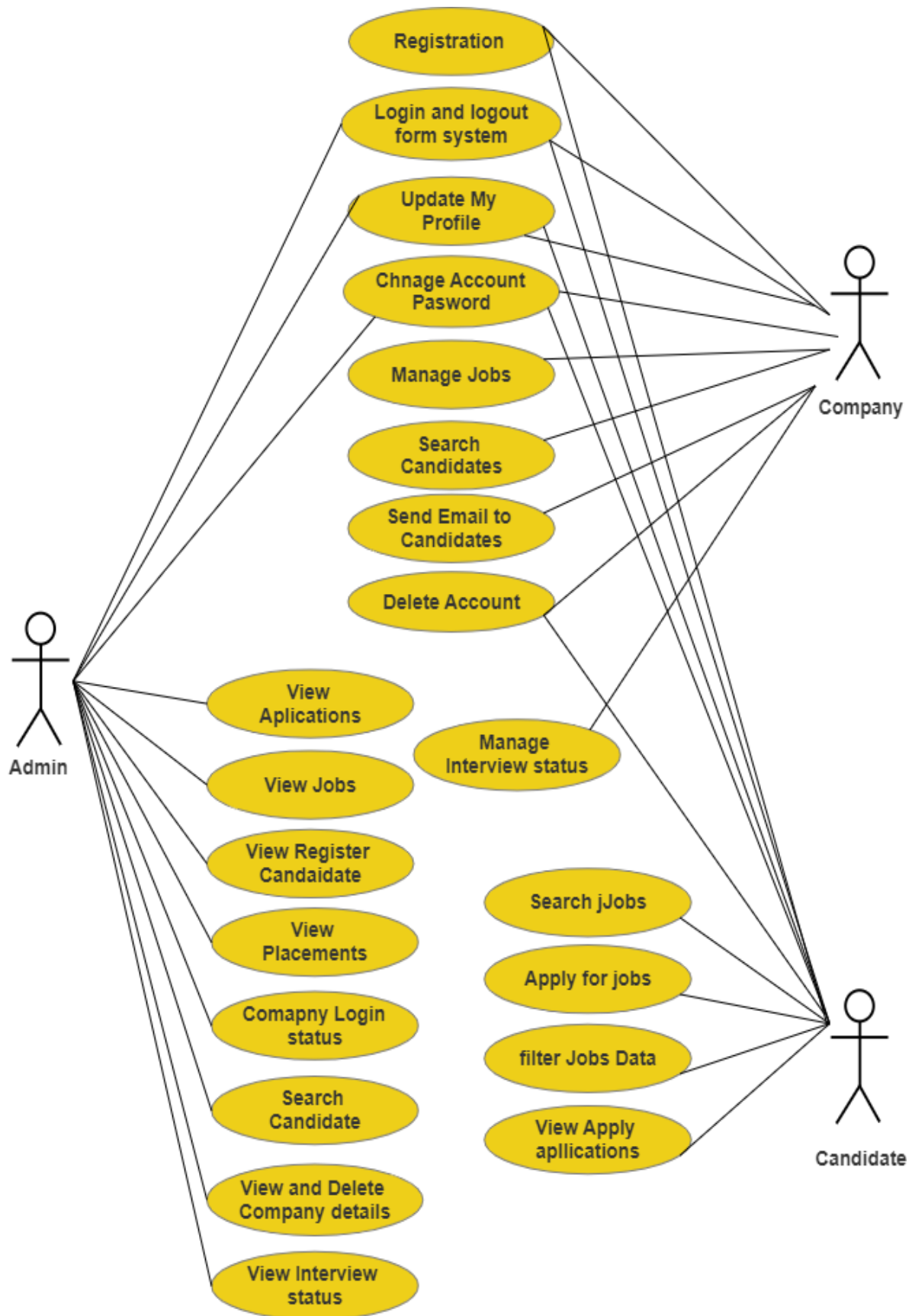**planned to develop a web-based placement cell.**

- • **Easy to find out the list of eligible students attending the**

  **drives.**

- • **It manages the details of student records, placement**

  **training, different placements happening in and out of the**

  **college.**

- • **Saves the time of placement officer and faculties.**

- • **Reduces the manual works.**

- • **This system makes student information more secure.**
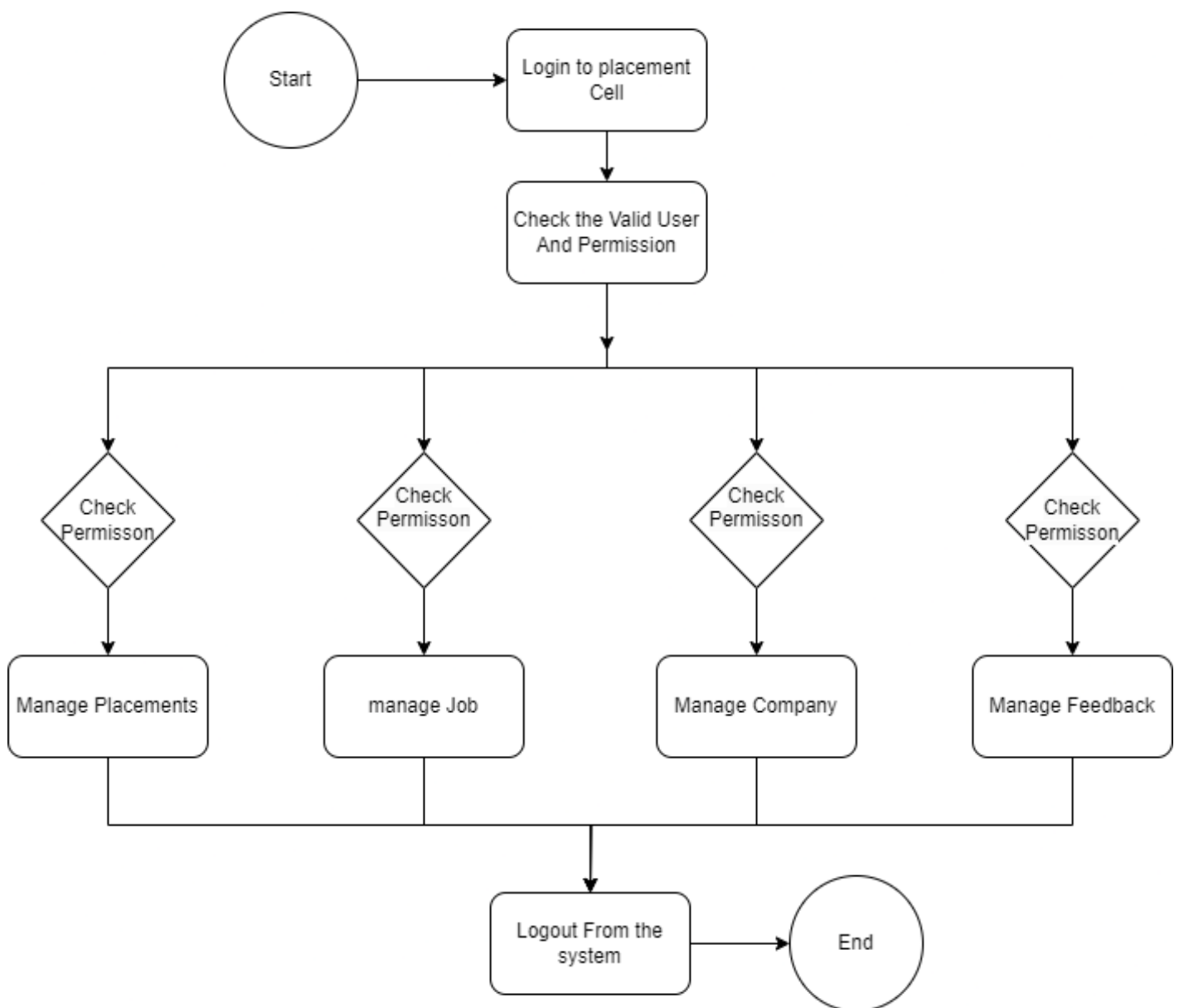
# Module and Functionality Description

❖ **User - Login (User):** User can login from email id and password .

❖ **Forgot Password:** User can update/change their Password.

❖ **User -** Registration: New User (Student) can Register Into The Site , via Registration Form.

❖ **Dashboard (User):** in this page show a following section Search Bar, Find a Jobs, Feedback, User Name, and Profile to redirect a particular page.

❖ **Job Listing: - job Listing (User):** User can  search the Job_title and apply filters .

❖ **Job Details (User):** User can see all the frontline job details.

❖ **Apply For Job(User)**: User can Apply to his/her Wished Jobs .

❖ **Feedback (User):** User Can Give  feedback from their Experience.

❖ **Applied Jobs :** User can see job applied by them.

❖  **Withdraw (User):** Use can Withdraw their Job application at any time .

❖ **Profile(User):** User can see Their details and Change Other Personal Details.

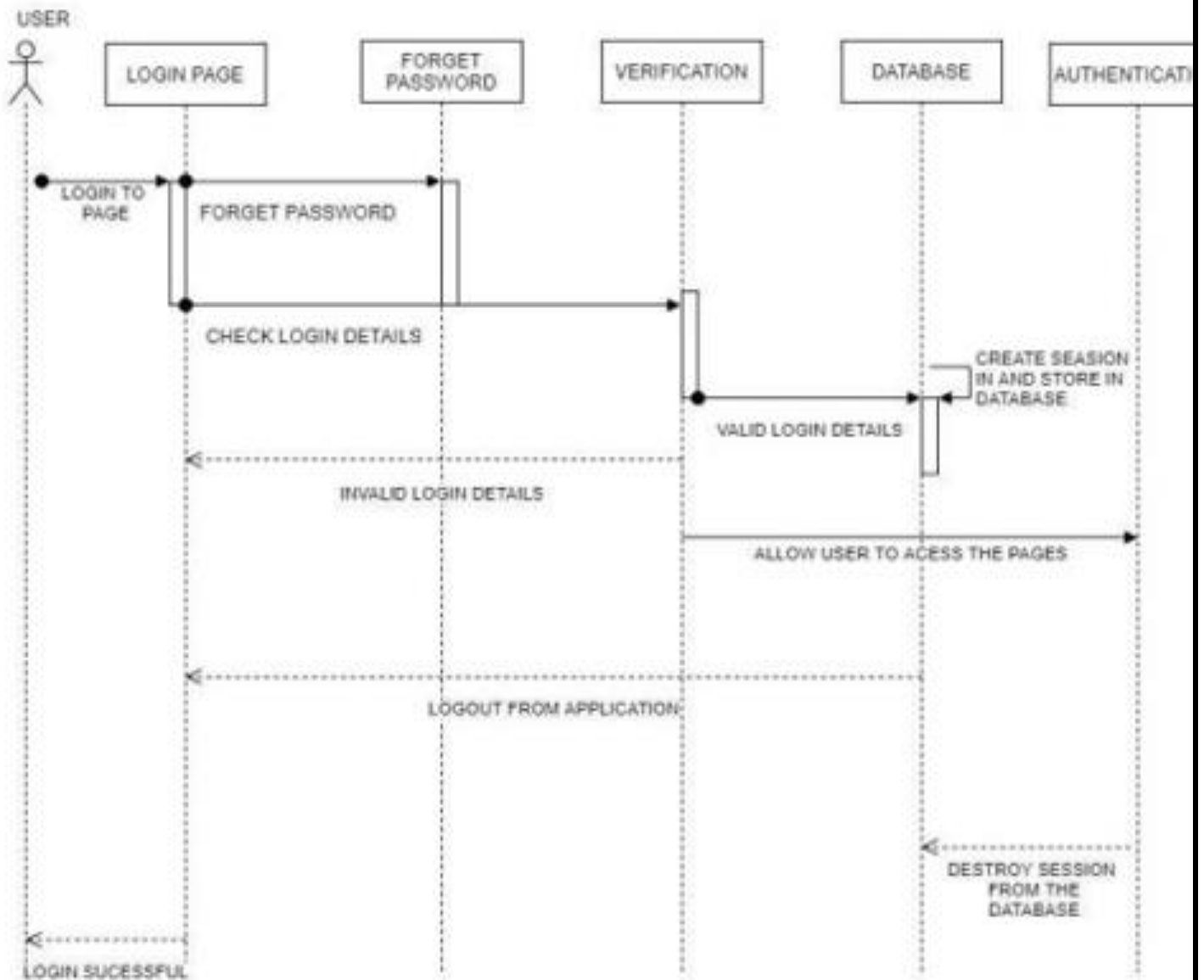# 3. Requirement Analysis & Modelling

# Use-case Diagram

# **Activity Diagram**

# Sequence Diagram



USER

LOGIN PAGE

FORGET PASSWORD

VERIFICATION

DATABASE

AUTHENTICATI

LOGIN TO PAGE

FORGET PASSWORD

CHECK LOGIN DETAILS

CREATE SEASION IN AND STORE IN DATABASE

VALID LOGIN DETAILS

INVALID LOGIN DETAILS

ALLOW USER TO ACESS THE PAGES

LOGOUT FROM APPLICATION

DESTROY SESSION FROM THE DATABASE

LOGIN SUCESSFUL

# 4. Design

# Database Design

## Table name: Student

| Field Name | Data Type | Constrains | Description |
|---|---|---|---|
| stud_id | Int | Primary key | Contains Id Of Students |
| stud_name | varchar | | Contains Name Of Students |
| e_number | varchar | | Contains Enrollment No Of Students |
| phone_no | varchar | | Contains PhoneNo Of Students |
| dept_id | int | Foreign Key | Contains Department_Id Of Students |
| course_id | int | Foreign Key | Contains Course_Id Of Students |
| cgpa | float | | Contains Cgpa Of Students |
| skills | varchar | | Contains Skills Of Students |
| resume_path | varchar | | Contains Resume_path Of Students |
| email | varchar | | Contains Email_Id Of Students |
| password | varchar | | Contains password Of Students |
| c_password | varchar | | Contains Confirm_password Of Students |
| Login_status | varchar | | Contains Login_status Of Students |
| Otp | Varchar | | Contains Otp for students |
| Otp_status | Int | | Contain otp status |

# Table Name: Course

| Field name | Data Type | Constrains | Description |
|------------|-----------|------------|-------------|
| course_id | int | Primary Key | Contains course_id Of Courses |
| course_name | varchar | | Contains course_name Of Courses |
| dept_id | Int | Foreign Key | Contains Department_id Of Courses |

# Table Name: Feedback

| Field name | Data Type | Constrains | Description |
|------------|-----------|------------|-------------|
| feedback_id | feedback_id | Primary Key | Contains feedback id |
| stud_id | stud_id | Foreign Key | Contains Student id |
| company_id | company_id | Foreign Key | Contains Company id |
| jobid | jobid | Foreign Key | Contains job id |
| rating | rating | | Contains rating |
| comment | comment | | Contains comment |
| date | date | | Contains date |
| dept_id | dept_id | Foreign Key | Contains Department id |

# Table Name: Dept

| Field name | Data Type | Constrains | Description |
|---|---|---|---|
| Dept_id | int | Primary Key | Contains department_id Of department |
| dept_name | varchar | | Contains department_name Of departents |

# Table Name: Adi_Login

| Field name | Data Type | Constrains | Description |
|---|---|---|---|
| adi_id | int | Primary Key | Contains Admin_id of Admin |
| adi_uname | varchar(1000) | | Contains Admin_username of Admin |
| user_full_name | varchar(100) | | Contains Admin_fullname of Admin |
| password | varchar(100) | | Contains password of Admin |
| c_password | varchar(100) | | Contains confirm password of Admin |

# Table Name: Company

| Field name | Data Type | Constrains | Description |
|---|---|---|---|
| company_id | int | Primary Key | Contains Company id |
| company_name | varchar(100) | | Contains Company name |
| company_logo | varchar(1000) | | Contains Company logo |
| person_full_name | varchar(100) | | Contains Company person_name |
| email | varchar(200) | | Contains Company email |
| company_password | varchar(100) | | Contains Company password |
| company_c_password | varchar(100) | | Contains Company confirm password |
| industry | varchar(100) | | Contains Company type |
| contact_no | varchar(50) | | Contains Company contact number |
| web_link | varchar(100) | | Contains Company website |
| company_Address | varchar(100) | | Contains Company address |
| company_status | varchar(100) | | Contains Company status |
| comp_otp | varchar(100) | | Contains Company otp |
| comp_otp_status | int | | Contains Company otp status |

# Table Name: Job Details
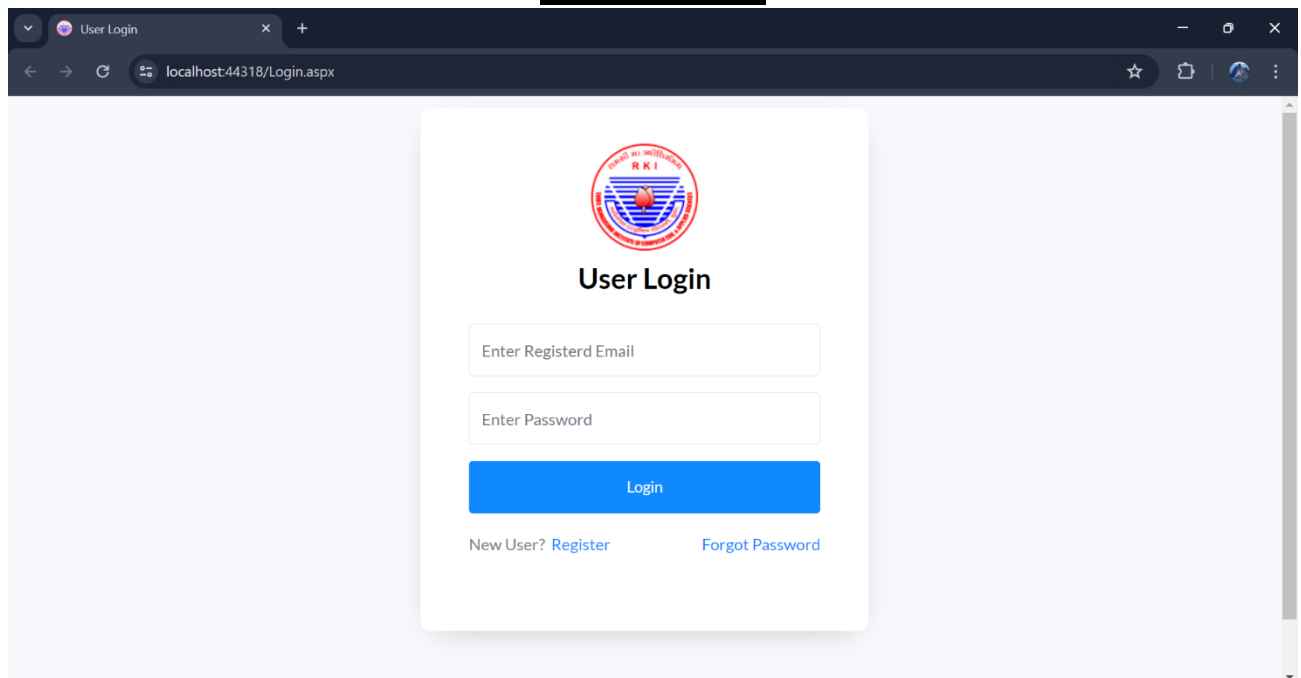
| Field name | Data Type | Constrains | Description |
|---|---|---|---|
| jobid | int | Primary Key | Contains Job id |
| company_id | int | Foreign Key | Contains Company id |
| job_title | varchar(100) | | Contains job title |
| description | varchar(1000) | | Contains description |
| require_skills | varchar(300) | | Contains required skills |
| education_experience | varchar(200) | | Contains experience details |
| posted_date | varchar(100) | | Contains posted date |
| last_apply_date | varchar(100) | | Contains till date |
| interview_date | varchar(50) | | Contains interview date |
| location | varchar(100) | | Contains job location |
| vacancy | int | | Contains no. of vacancy |
| number_of_rounds | varchar(50) | | Contains number of interview rounds |
| job_nature | varchar(100) | | Contains job type |
| salary | varchar(100) | | Contains salary |
| dept_name | varchar(100) | | Contains department name |
| course_name | varchar(100) | | Contains course name |

# Table Name: placement

| Field name | Data Type | Constrains | Description |
|---|---|---|---|
| place_id | int | Primary Key | Contains placement id |
| company_id | int | Foreign Key | Contains company id |
| jobid | int | Foreign Key | Contains job id |
| stud_id | int | Foreign Key | Contains student id |
| application_date | varchar(100) | | Contains application date |
| interview_date | varchar(100) | | Contains interview date |
| status | varchar(50) | | Contains application status |
| join_date | varchar(50) | | Contains joining date |
| dept_id | int | Foreign Key | Contains department id |
| withdraw_date | varchar(50) | | Contains application withdraw date |

# Interface Design
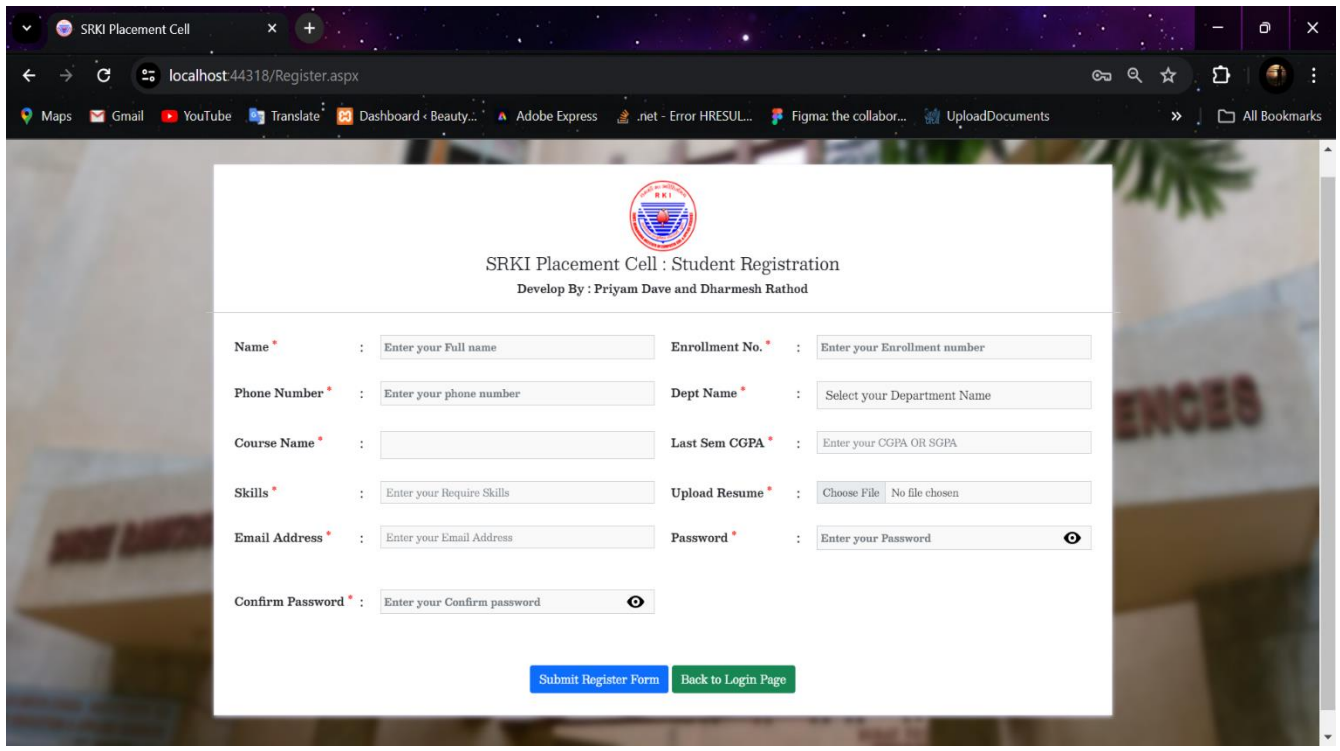
## User login:



- ➢ User can login…
- ➢ Not Registerd Students Can register..
- ➢ Forgot password Facilty is available..
- ➢  After login page is redirect to User-dashboard page

# Registration:



➢ User Can Register him/her self ..

➢ User have to upload resume Compalsary..
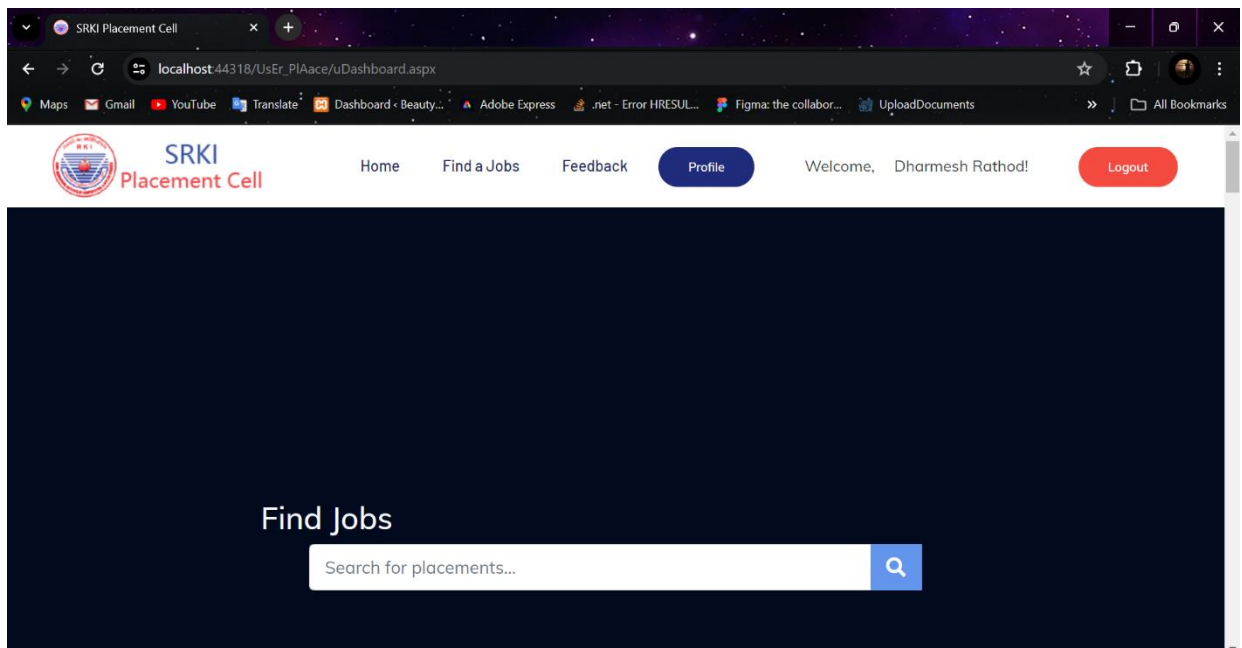
# Forgot Password:



➢ User can Change/Update password..
➢ Email OTP verification is available..

# User Dashboard:



➢ User can search for jobs ..

# Job Listing(User):
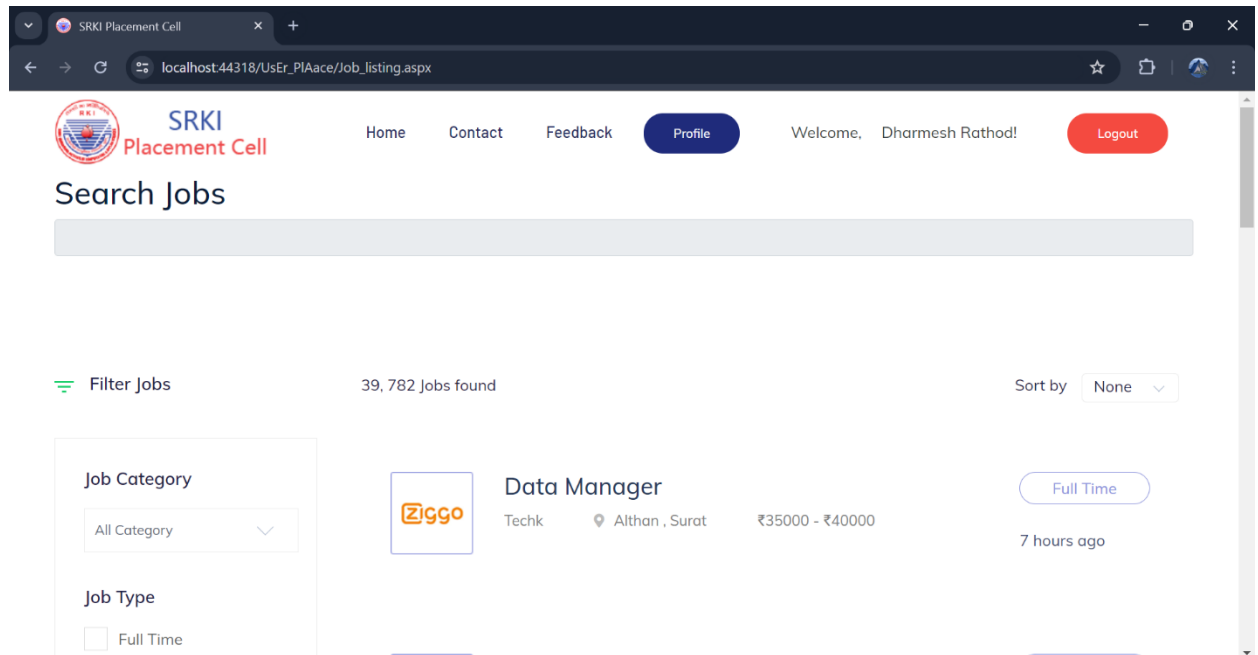


➢ Show all the releated jobs..

➢ Apply filters..

# Job Details(User):
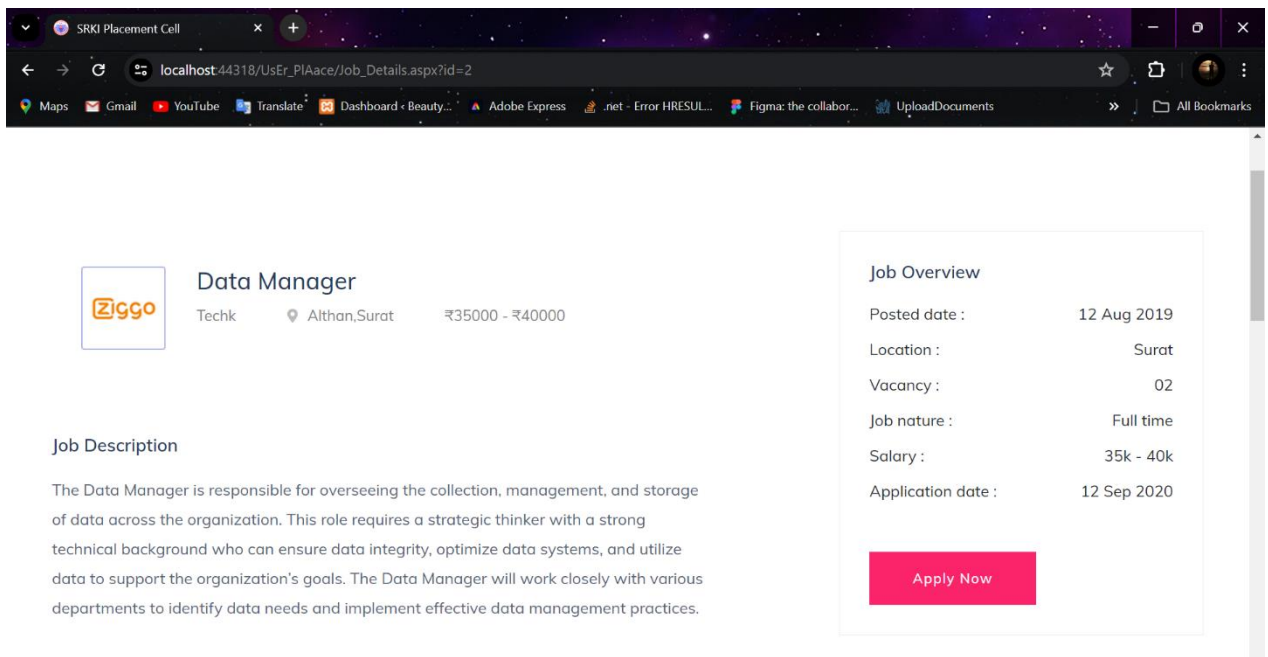


➢ Related jobs description…

# Applied jobs:
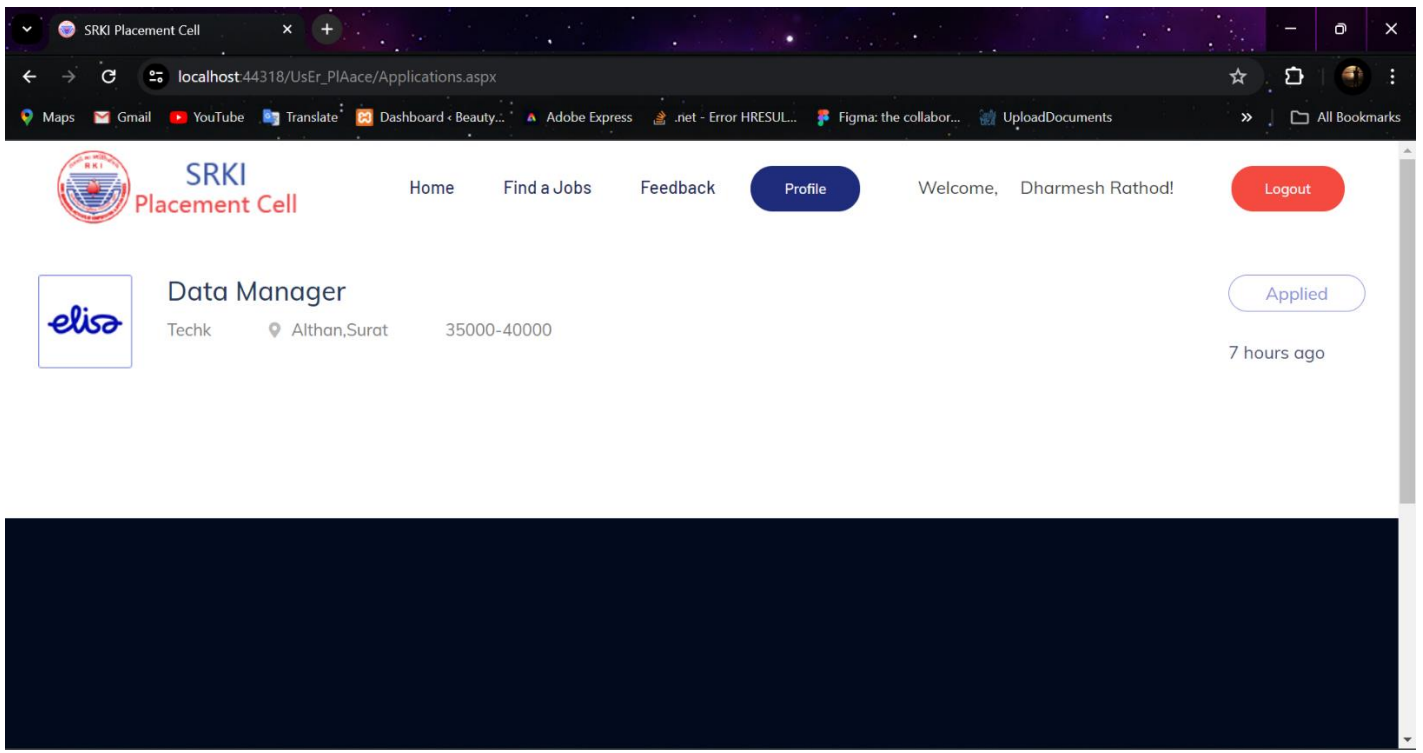


➢ Show applied Jobs

# Withdraw Application:
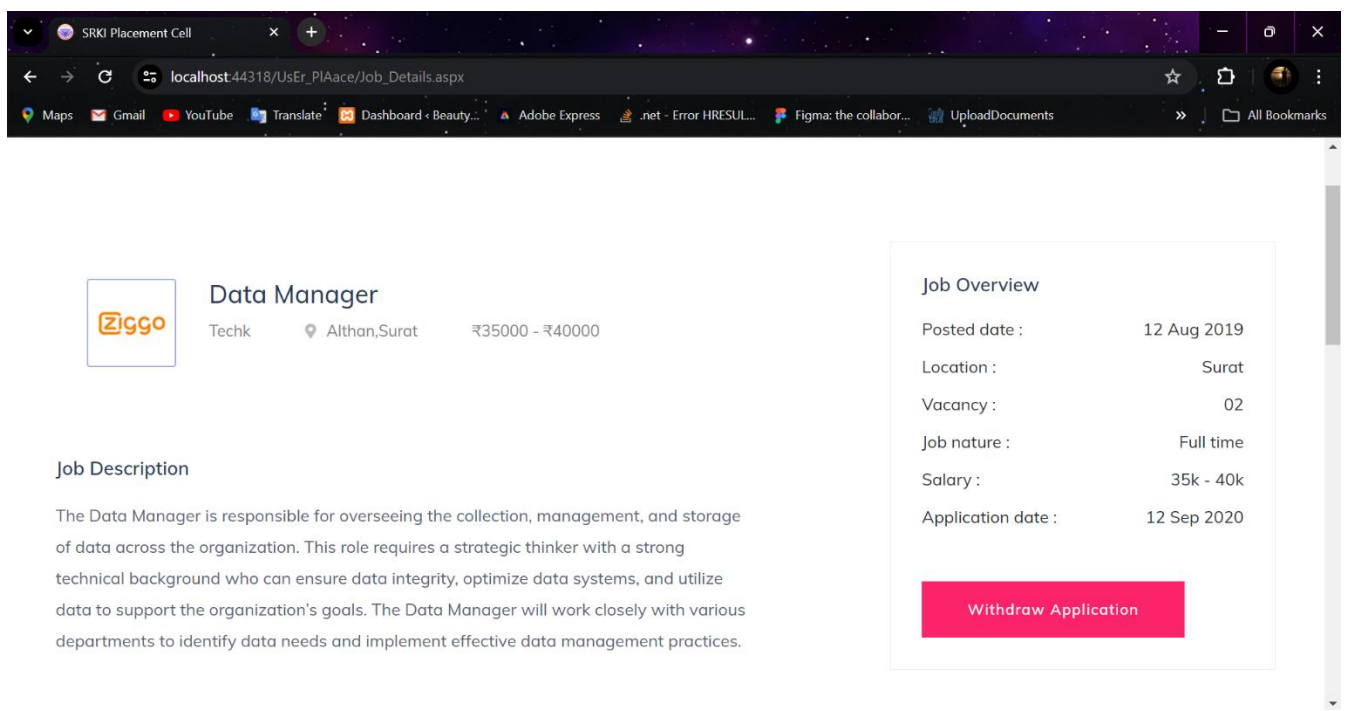


➢ User can Withdraw Application..

# Profile:
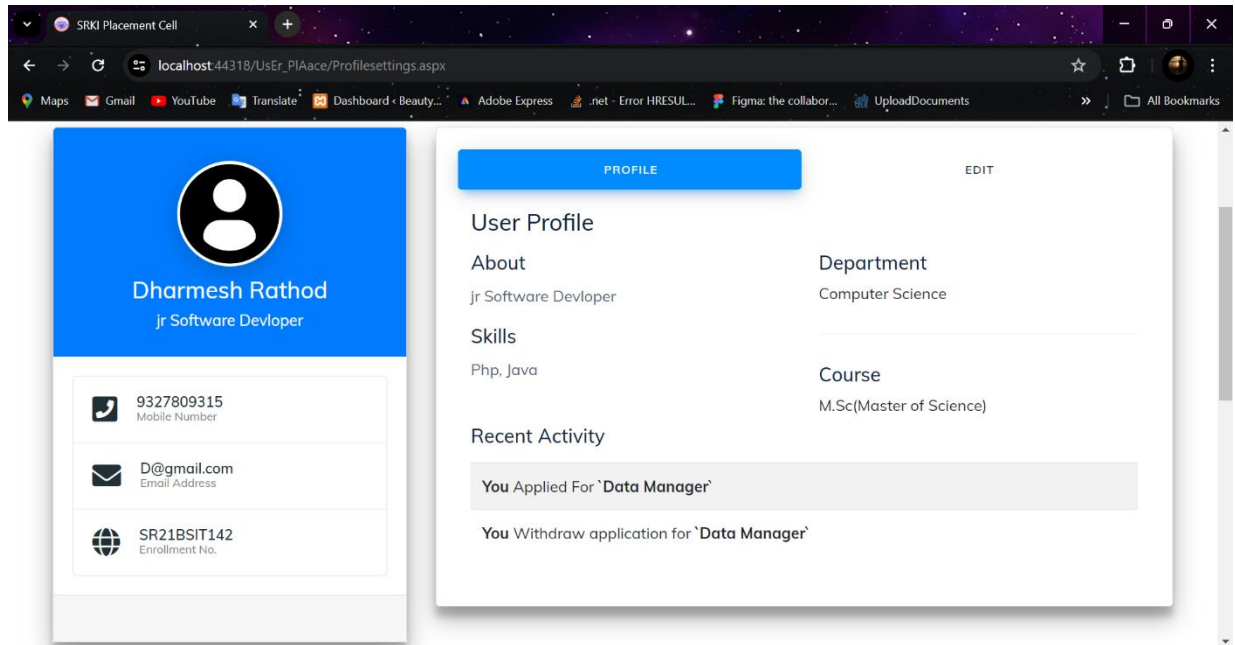


➢ Show User Profile..

# Update Profile:
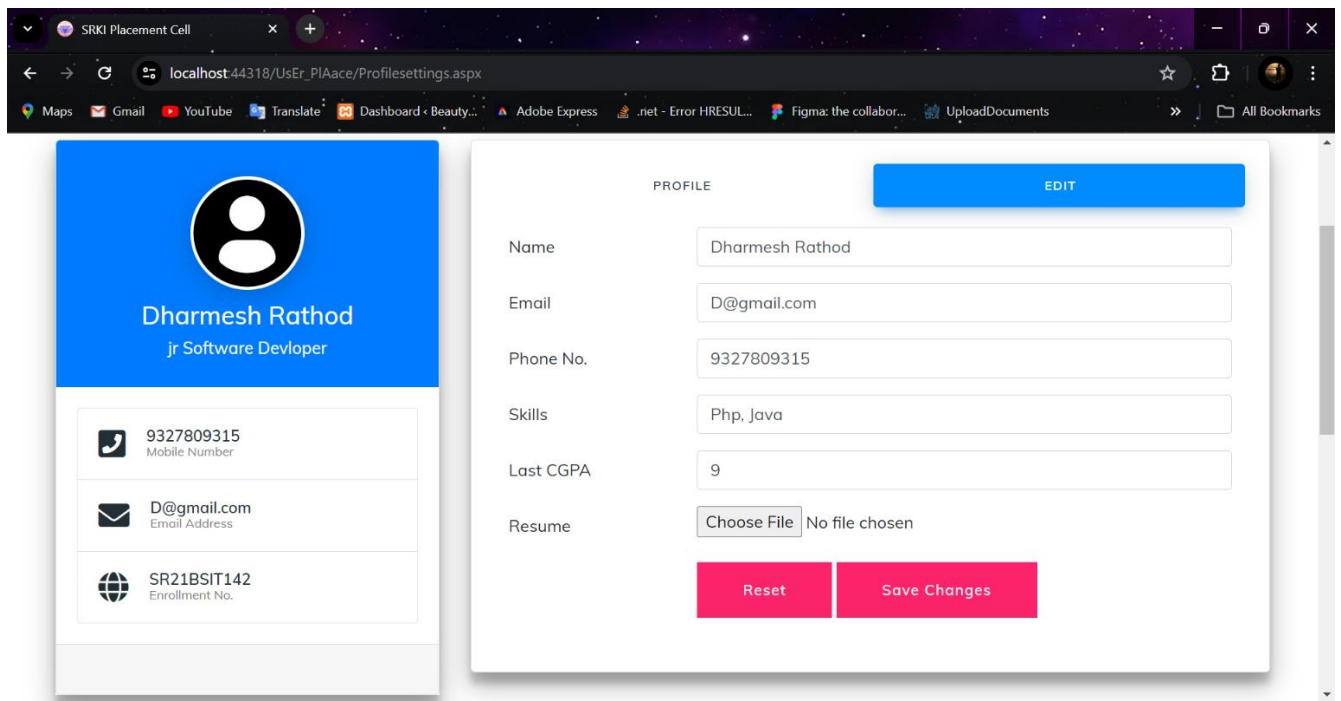


➢ Update User Profile..

# Feedback:



➢ User Feedback..

# System Flowchart :
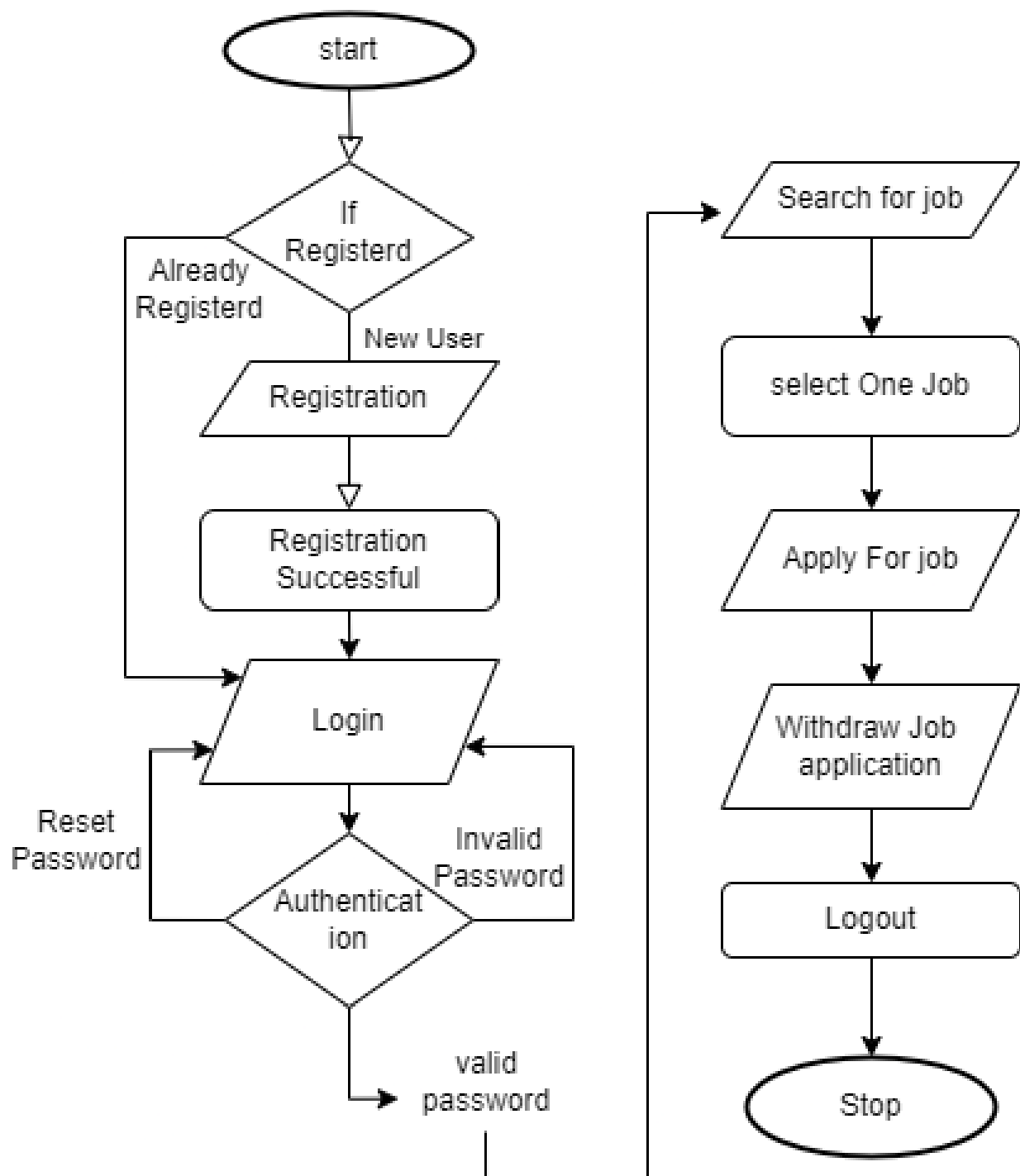
# System Architecture :
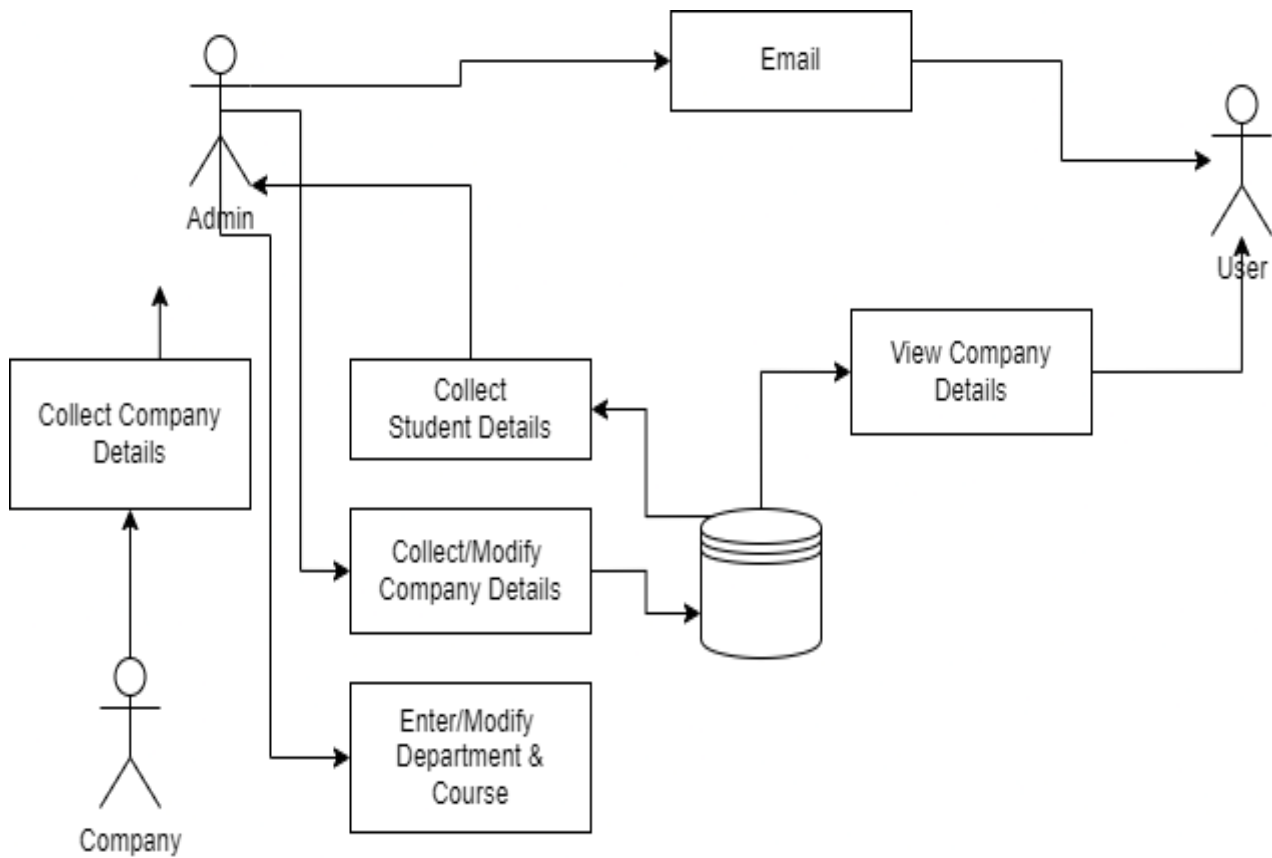
# 5. Code Methodology

## ❖ Email Otp Verofication :

```csharp
<%@ Page Language="C#" AutoEventWireup="true" CodeBehind="RegisterOTP.aspx.cs"
Inherits="USER_SRKI_Placement_Cell.RegisterOTP" %>

<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title>User Login</title>
    <meta charset="utf-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-
fit=no" />
    <link rel="website icon" type="png"
href="./UsEr_PlAace/assets/img/logo/srkilogo.png" />
    <link href="https://fonts.googleapis.com/css?family=Lato:300,400,700&display=swap"
rel="stylesheet" />
    <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/font-
awesome/4.7.0/css/font-awesome.min.css" />
    <link rel="stylesheet" href="./UsEr_PlAace/assets/css/login.css" />
    <link rel="stylesheet" href="https://fonts.googleapis.com/css?family=Sofia" />
    <script src="https://cdn.jsdelivr.net/npm/sweetalert2@11"></script>
    <link href="https://cdnjs.cloudflare.com/ajax/libs/font-
awesome/5.15.4/css/all.min.css" rel="stylesheet" />
</head>
<body>
    <div data-background="./UsEr_PlAace/assets/img/gallery/cv_bg.jpg">
        <section class="ftco-section">
            <div class="container" style="margin-top: -100px;">
                <div class="row justify-content-center">
                    <div class="col-md-7 col-lg-5">
                        <div class="login-wrap p-4 p-md-5">
                            <div class="icon d-flex align-items-center justify-content-
center">
                                <img src="./UsEr_PlAace/assets/img/logo/srkilogo.png"
alt="" />
                            </div>
                            <h3 class="text-center mb-4" style="font-weight: bold;
margin-top: 20px;">Forgot Password</h3>
                            <form id="forgetpassForm" runat="server" class="login-form">

                                <div class="form-group d-flex align-items-center">
                                    <asp:TextBox ID="Fotp" CssClass="form-control
rounded-left" placeholder="Enter OTP" runat="server"></asp:TextBox>
                                    <asp:Button ID="validate" CssClass="form-control btn
btn-primary rounded btn-sm" OnClick="validate_Click" runat="server" Text="Validate" />
                                </div>
                                <div class="form-group">
                                    <asp:TextBox ID="Opass" CssClass="form-
control  rounded-left" runat="server" placeholder="Enter Old Password"></asp:TextBox>
```

```
                                        <br />
                                        <asp:TextBox ID="Fpass" runat="server"
TextMode="Password" CssClass="form-control rounded-left" placeholder="Enter New
Password"></asp:TextBox>
                                    </div>
                                    <div class="form-group">
                                        <asp:Button ID="FBtn" CssClass="form-control btn
btn-primary rounded submit px-3" runat="server" OnClick="FBtn_Click" Text="Set New
Password" />
                                    </div>
                                    <div class="form-group d-md-flex">
                                        <div class="w-50">
                                            <label>
                                                New User? <a href="Register.aspx"
style="margin-left: 3px;">Register</a>
                                            </label>
                                        </div>
                                        <div class="w-50 text-md-right">
                                            <a href="Login.aspx">Back to Login</a>
                                        </div>
                                    </div>
                                </form>
                            </div>
                        </div>
                    </div>
                </div>
            </section>
        </div>
</body>
</html>

using System;
using System.Configuration;
using System.Data.SqlClient;
using System.Net;
using System.Net.Mail;


protected void Page_Load(object sender, EventArgs e)
{
    if (!IsPostBack)
    {
        string otp = GenerateOTP();
        string userEmail = Session["userEmail"].ToString();
        SendOTP(userEmail, otp);
        Session["OTP"] = otp;
    }
}
private string GenerateOTP()
{
    Random random = new Random();
```

```
        return random.Next(100000, 999999).ToString();
}

private void SendOTP(string email, string otp)
{
    SmtpClient client = new SmtpClient("smtp.gmail.com", 587)
    {
        Credentials = new NetworkCredential("rdy2611@gmail.com", "r@thod@2611"),
        EnableSsl = true
    };

    MailMessage mailMessage = new MailMessage
    {
        From = new MailAddress("rdy2611@gmail.com"),
        Subject = "Your OTP Code",
        Body = $"Your OTP code is {otp}",
        IsBodyHtml = true
    };
    mailMessage.To.Add(email);

    client.Send(mailMessage);
}

protected void validate_Click(object sender, EventArgs e)
{
    string enteredOtp = Fotp.Text;
    string sessionOtp = Session["OTP"].ToString();

    if (enteredOtp == sessionOtp)
    {
        string userEmail = Session["userEmail"].ToString();
        UpdatePassword(userEmail, Opass.Text, Fpass.Text);
        Response.Redirect("Success.aspx");
    }
    else
    {
        ClientScript.RegisterClientScriptBlock(this.GetType(), "k", "swal('Invalid
OTP','','error')", true);
    }
}

private void UpdatePassword(string email, string oldPassword, string newPassword)
{
    string connectionString =
ConfigurationManager.ConnectionStrings["cs"].ConnectionString;

    using (SqlConnection con = new SqlConnection(connectionString))
    {
        string query = "UPDATE tblstudent SET password = @newPassword WHERE email =
@Email AND password = @oldPassword";
```

```
        using (SqlCommand cmd = new SqlCommand(query, con))
        {
            cmd.Parameters.AddWithValue("@Email", email);
            cmd.Parameters.AddWithValue("@oldPassword", oldPassword);
            cmd.Parameters.AddWithValue("@newPassword", newPassword);

            con.Open();
            int rowsAffected = cmd.ExecuteNonQuery();
            if (rowsAffected > 0)
            {
                // Password updated successfully
            }
            else
            {
                // Handle error: old password did not match
            }
        }
    }
}
```

➢ In This Code implement , the Otp Sends on Registered Email and then after verification it sets new password.

# 6. Testing

## ➢ **Testing data inputs and testing operations :**

## **All User site testing Case :**

| Test Case Description | Test Data | Expected Result | Actual Result | Pass/Fail |
|---|---|---|---|---|
| Login with valid credentials | Email : "D@gmail.com" Password: "Dharmesh@9090" | Redirect to dashboard | Redirected to dashboard | Pass |
| Login with invalid Email | Email : "Dpp@gmail.com" Password: "Dharmesh@9090" | Error message: "Invalid username/password" | Error message: "Invalid username/password" And redirected to again login page | Pass |
| Login with invalid password | Email : "D@gmail.com" Password: "Dharmesh@9191" | Error message: "Invalid username/password" | Error message: "Invalid username/password" And redirected to again login page | Pass |
| Register with No colums Empty | All colums are not null | Successful Register | Successful Register And redirect to login page | Pass |
| Register with name colum Empty | Name: " " Enrollment No: "SR21BSIT142" | Error message: "please Enter Name" | Error message: "please Enter Name" | Pass |
| Enter Empty Feedback | Comment: " " | Error message: "please Enter comment" | Error message: "please Enter Comment" | Pass |
| Enter Wrong Otp | Otp: "665545" Input: "787976" | Error message: "please Enter valid Otp" | Error message: "please Enter valid Otp" | Pass |
| Enter short Otp | Otp: "232452" Input: "0234" | Error message: "please Enter valid Otp" | Error message: "please Enter valid Otp" | Pass |
| Enter Wrong Old Password | Password: "Dharmesh@9090" Input: "Dh@12324" | Error message: "Old Password not match" | Error message: "Old Password not match" | Pass |

# 7. Future Enhancement

- **Placement Cell have several key enhancements and opportunities that can be pursued to further elevate the functionality and user experience of the Site.**

- Modern Design Aesthetics**: Update the visual design to incorporate modern design principles, ensuring a clean, professional, and appealing look.**

- **Social Media Login : Users can be login through social media accounts (e.g., LinkedIn, Google, Facebook )for a seamless and faster login experience.**

- **Email and SMS Alerts: Implement an automated notification system that sends job alerts, application status updates, and other important information via email and SMS.**

- **Career Guidance and Counseling: Offer personalized career guidance and counseling services to help users make informed career decisions.**

- **API Integrations: Integrate with popular job boards and recruitment platforms to aggregate job listings and expand the reach of job postings.**

# 8. Bibliography & References

=> The following reference has been used to develop the project : -

For curd operation:

https://www.youtube.com/watch?v=lCHKwyekbT4&t=64s

https://www.youtube.com/watch?v=BfEjDD8mWYg

https://www.youtube.com/watch?v=T-e554Zt3n4

For design part:

https://www.youtube.com/playlist?list=PL4HegTSNb5KEuVLeB9dDvENr2lqbsSSK3