

KSQUARE CAREERS
MINI JOB PORTAL



Ksquare Energy pvt ltd – Solar Company
Ahmedabad

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1.INTRODUCTION

1.1 PROJECT OVERVIEW

Ksquare Careers is a mini job portal designed to facilitate job postings, job applications, and candidate management for small to mid-sized organizations. This web-based system is built using PHP, MySQL, HTML, CSS, and Bootstrap to ensure a responsive, user-friendly, and efficient job recruitment process.

1.2 PURPOSE OF THE PROJECT

The primary goal of this job portal is to simplify and digitize the hiring process by allowing employers to post job vacancies and applicants to submit their applications online. The system eliminates the need for manual job listings and paper-based applications, making the hiring process more efficient and organized.

1.3 OBJECTIVES

The key objectives of the Ksquare Careers job portal are:

- **Streamline the Job Posting Process:** Employers can post job openings with detailed descriptions, locations, and departments.
- **Enhance Applicant Experience:** Job seekers can easily browse jobs and apply with a simple online form.
- **Efficient Resume Management:** Uploaded resumes are securely stored in the system for future reference.
- **Basic Admin Panel for HR :** HR personnel can view and manage job applications.
- **Database-Driven Content Management:** Jobs and applications are stored dynamically in a MySQL database.
- **Responsive UI for Multi-Device Compatibility:** The system is designed using Bootstrap for mobile and desktop users.

2. FEATURES AND FUNCTIONALITIES

The Ksquare Careers job portal provides essential functionalities for job seekers and HR personnel, ensuring a smooth recruitment process. Below is a detailed breakdown of each feature:

2.1 Job Listing Page (index.php)

- Displays all available job openings in a card-based layout using Bootstrap.
- Each job listing contains:
 - Job Title (e.g., "Software Engineer")
 - Department (e.g., "IT")
 - Location (e.g., "New York")
 - View More button to see the full job details.
- Data is dynamically fetched from the MySQL database using PHP.
- Bootstrap is used for responsive styling, ensuring job listings are well-structured.

2.2 Job Details Page (job-details.php)

- Displays complete job descriptions when a user clicks on "View More."
- Information includes:
 - Job Title
 - Department
 - Location
 - Detailed Job Description
- The job_id is passed via URL parameters to fetch details from the database.
- The page layout is centered using Bootstrap for better readability.

2.3 Candidate Application Form (apply.php)

- Allows job seekers to apply for available positions.
- Contains the following input fields:
 - Name – Required field
 - Email – Required field with validation
 - Phone Number – Required field with validation
 - Resume Upload – File upload functionality (stored in uploads/ folder)
 - Cover Letter – Text area for applicants to provide additional details

- Apply Button – Submits the form
- Uses PHP form validation to ensure required fields are filled.
- Resume files are stored in the uploads/ directory.
- Data is securely inserted into the applications table in MySQL.
- After successful submission, the form displays a success message instead of reloading the form (using POST-REDIRECT-GET pattern to prevent duplicate submissions).

2.4 Resume Upload Feature

- Applicants can upload their resume in PDF or DOCX format.
- Ensures proper file validation to prevent malicious uploads.
- Saves the uploaded file in the uploads/ folder.
- PHP's move_uploaded_file() function is used to store the resume securely.
- The database stores the file name, and the actual file is saved in the directory.
- If the uploads/ folder is missing, the system displays an error message.

2.5 Admin Panel (admin.php) (Optional Feature for HR Management)

- Provides a basic interface for HR personnel to view, edit, and delete job applications.
- Displays a table of all submitted job applications, including:
 - Applicant Name
 - Email & Phone
 - Resume (Downloadable Link)
 - Cover Letter
 - Application Date
 - Delete Option (HR can remove unwanted applications)
- Uses PHP and MySQL to fetch applications from the database.
- Allows HR to delete applications using SQL DELETE queries.
- No login system is implemented in this version but can be added in the future.

2.6 Database-Driven Content Management

- Jobs and applications are stored in a structured MySQL database.

- Uses Foreign Key Constraints to maintain relationships between jobs and applications.
- Supports dynamic content updates without modifying code.
- The jobs table contains job listings.
- The applications table stores job applications and links them to specific job IDs using FOREIGN KEY (job_id).
- If a job is deleted, its applications are automatically removed due to ON DELETE CASCADE.

3. TECHNOLOGIES USED

Frontend Technologies

- HTML
- CSS
- Bootstrap

Backend Technologies

- PHP (Procedural & MySQLi)

Database

- MySQL

Server

- Apache (via XAMPP)

4. SYSTEM REQUIREMENTS

Operating System

- Windows/Linux/macOS

Web Server

- Apache (XAMPP recommended)

Database

- MySQL

Browser

- Chrome
- Firefox
- Edge

PHP Version

- 7.4 or higher

5. STEPS TAKEN TO DEVELOP THE PROJECT

Step 1: Setting Up the Environment

- Installed **XAMPP** for local server environment (Apache, PHP, MySQL).
- Created the project folder ksquares in htdocs directory.

Step 2: Backend Development (PHP & MySQL)

- Created **database connection (db.php)** to establish communication with MySQL.
- Developed index.php to fetch and display job listings dynamically.
- Implemented job-details.php to show job descriptions based on job_id.
- Built apply.php to handle job applications with form validation and file upload.

Step 3: Frontend Development (HTML, CSS, Bootstrap)

- Used **Bootstrap** for a **responsive design**.
- Styled job listings and details pages with proper alignment and readability.
- Added form validation and success messages in apply.php.

Step 4: Testing & Debugging

- Verified database connectivity and query execution.
- Debugged **file upload errors** (uploads/ folder permissions issue).
- Fixed **foreign key constraint error** when inserting applications.

6.DATABASE SETUP

Step 1: Install XAMPP and Start MySQL

- Download and install XAMPP.
- Start Apache and MySQL from the XAMPP control panel.

Step 2: Create the Database

- Open phpMyAdmin and create a new database named **ksquare_jobs**.

-- Create jobs table on Sql command prompt

```
CREATE TABLE jobs (  
    id INT AUTO_INCREMENT PRIMARY KEY,  
    title VARCHAR (255) NOT NULL,  
    department VARCHAR (100) NOT NULL,  
    location VARCHAR (100) NOT NULL,  
    description TEXT NOT NULL);
```

-- Create applications table

```
CREATE TABLE applications (  
    id INT AUTO_INCREMENT PRIMARY KEY,  
    job_id INT NOT NULL,  
    name VARCHAR (255) NOT NULL,  
    email VARCHAR (255) NOT NULL,  
    phone VARCHAR (20) NOT NULL,  
    resume VARCHAR (255) NOT NULL,  
    cover_letter TEXT,  
    applied_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP,  
    FOREIGN KEY (job_id) REFERENCES jobs(id) ON DELETE CASCADE);
```

Step 3: Verify Tables

- Ensure the jobs and applications tables exist with correct relationships.
- Check foreign key constraints and data integrity.

7. TROUBLESHOOTING & CHALLENGES FACED

Issue 1: MySQL Foreign Key Constraint Error

Error: Cannot add or update a child row: a foreign key constraint fails

Solution:

- Ensure job_id exists in the jobs table before inserting an application.
- Use ON DELETE CASCADE to maintain referential integrity.

Issue 2: File Upload Issues in apply.php

Error: move_uploaded_file(): Failed to open stream: No such file or directory

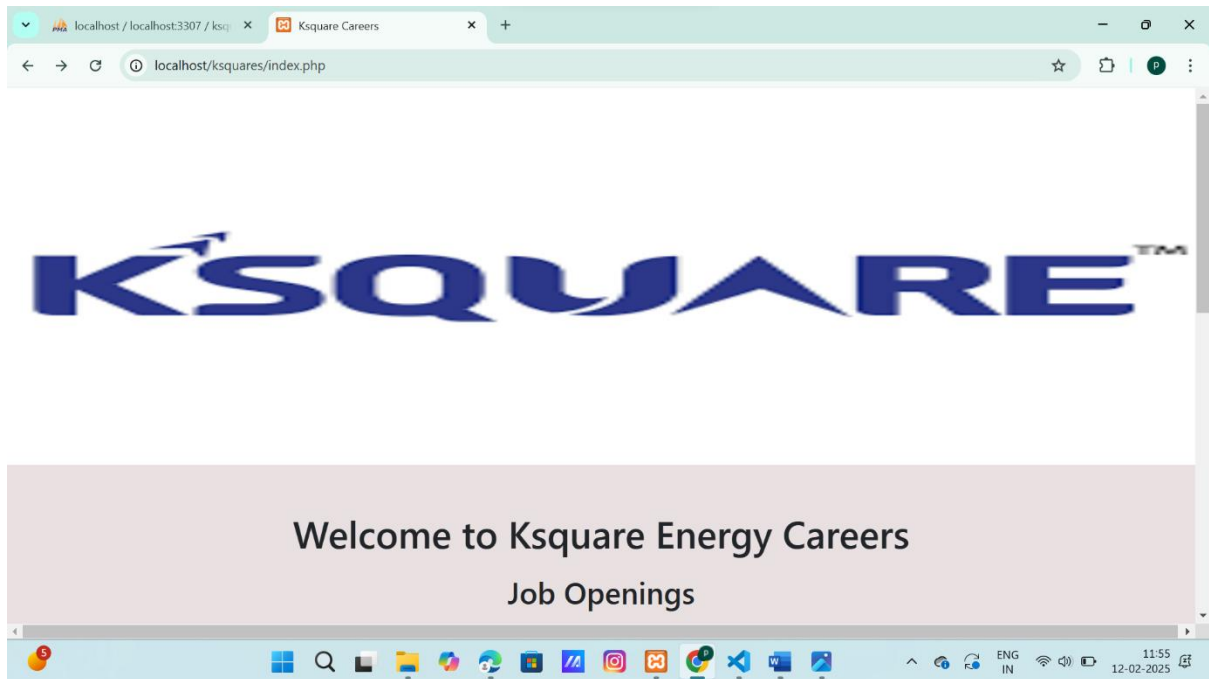
Solution:

- Created uploads/ folder manually inside the project directory.
- Set proper **folder permissions (chmod 755)** to allow file uploads.

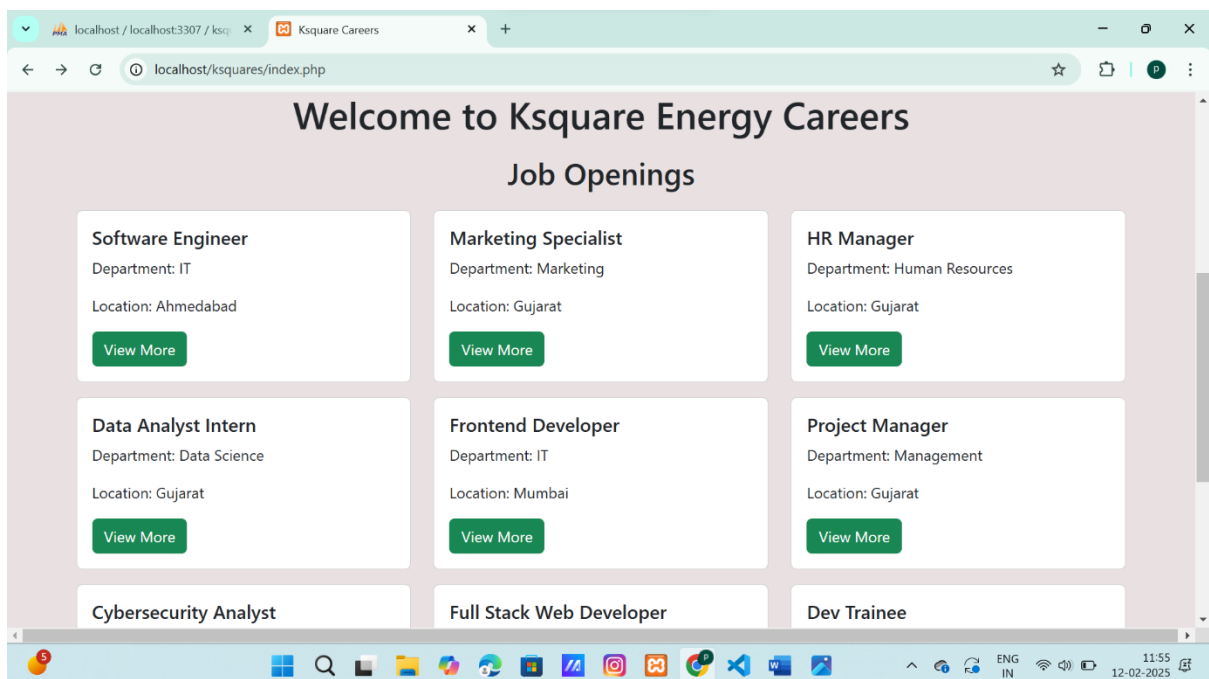
8. SCREENSHOTS

index.php

- While open **localhost/ksquares/index.php**

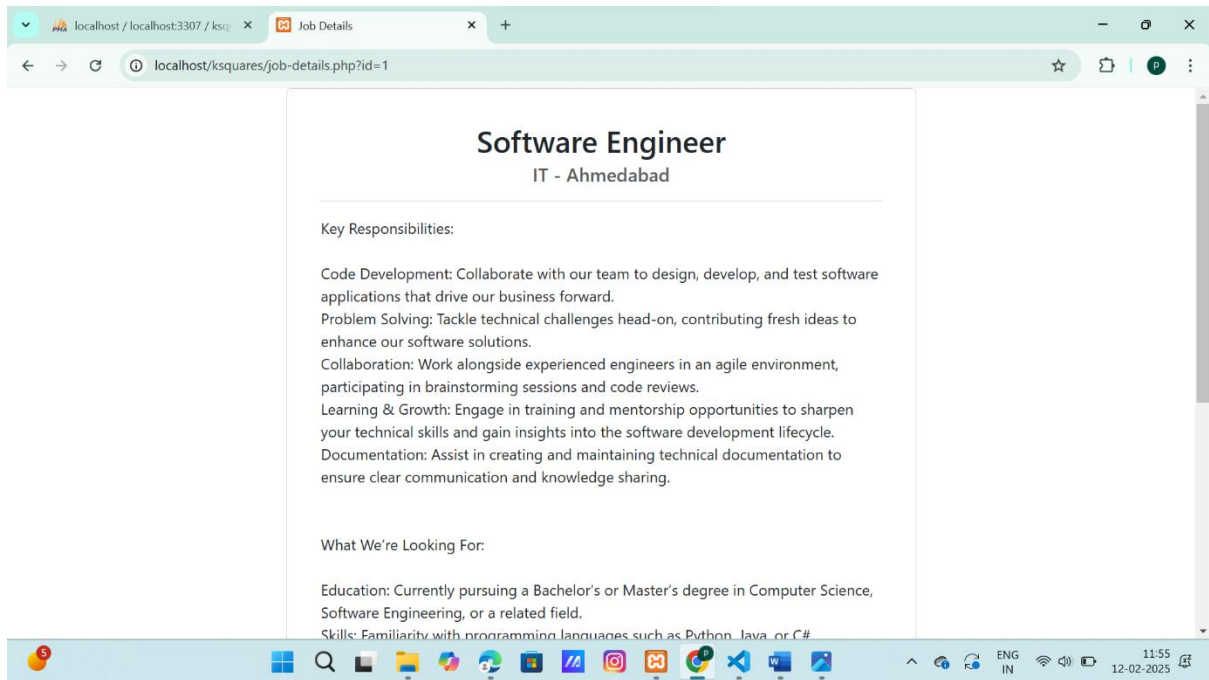


- It displays list of the jobs that available in the Ksquare Energy

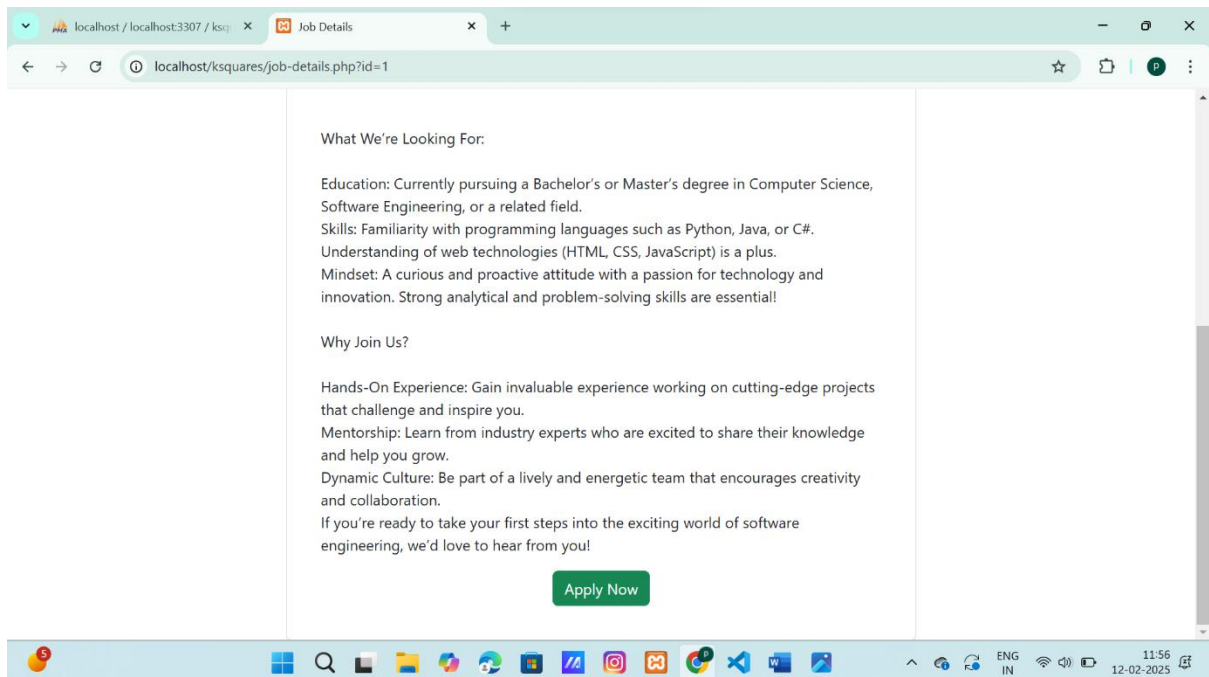


- After that we can select one job and click on **view more** button to the next process.

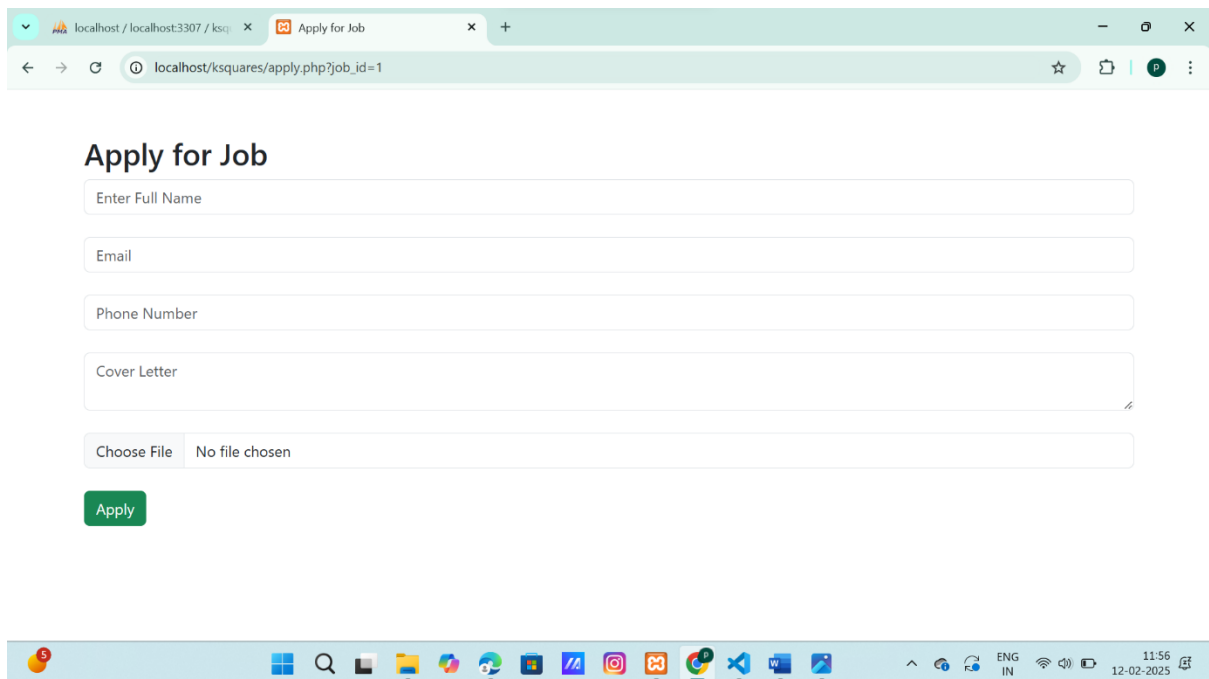
job_details.php



- Check out all the description about the job and click on **apply now** for the further process



apply.php



localhost / localhost:3307 / ksq x Apply for Job x +

localhost/ksquares/apply.php?job_id=1

Apply for Job

Enter Full Name

Email

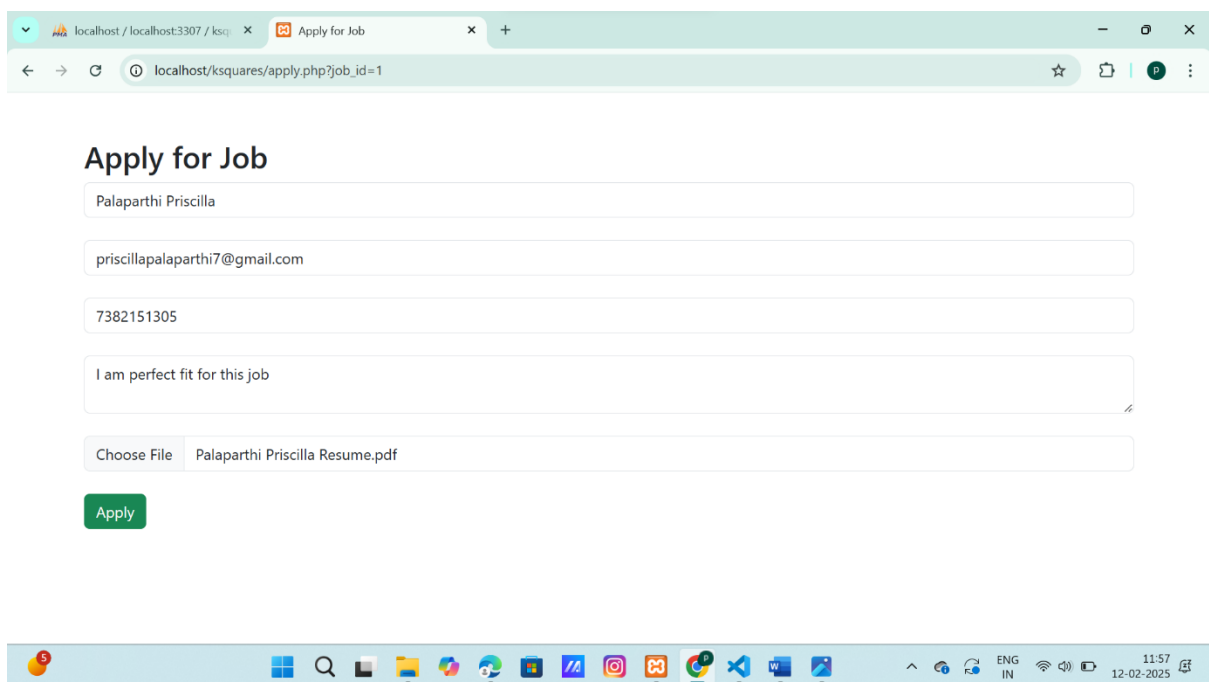
Phone Number

Cover Letter

Choose File No file chosen

Apply

- Clicking on **Apply now** it displays a form to fill the details.
- After filling the form click on **Apply** button to submit the form.



localhost / localhost:3307 / ksq x Apply for Job x +

localhost/ksquares/apply.php?job_id=1

Apply for Job

Palaparthi Priscilla

priscillapalaparthi7@gmail.com

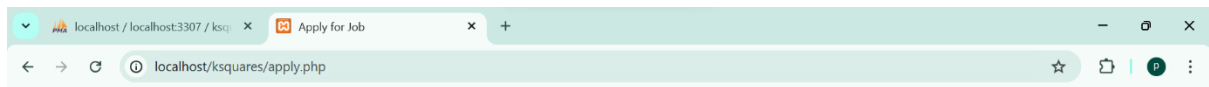
7382151305

I am perfect fit for this job

Choose File Palaparthi Priscilla Resume.pdf

Apply

- After submission form successfully submitted message will be displayed.



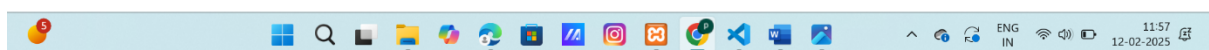
admin.php

- This page is dedicated to the HR manager to view the applications and details of the applicants and also can download and delete the resumes.
- **localhost/ksquares/admin.php**



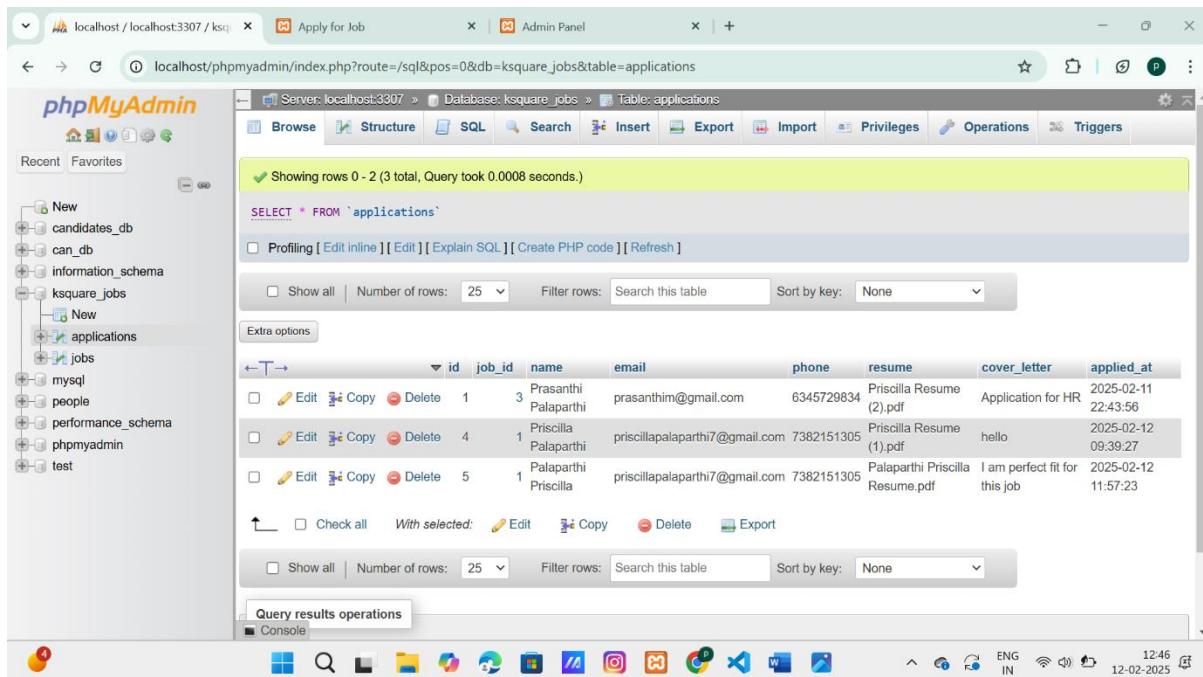
Job Applications

| ID | Name | Email | Phone | Cover Letter | Resume | Actions |
|----|-----------------------|--------------------------------|------------|-------------------------------|--------------------------|------------------------|
| 1 | Prasanthi Palaparathi | prasanthim@gmail.com | 6345729834 | Application for HR | Download | Delete |
| 4 | Priscilla Palaparathi | priscillapalaparthi7@gmail.com | 7382151305 | hello | Download | Delete |
| 5 | Palaparathi Priscilla | priscillapalaparthi7@gmail.com | 7382151305 | I am perfect fit for this job | Download | Delete |



On Database:

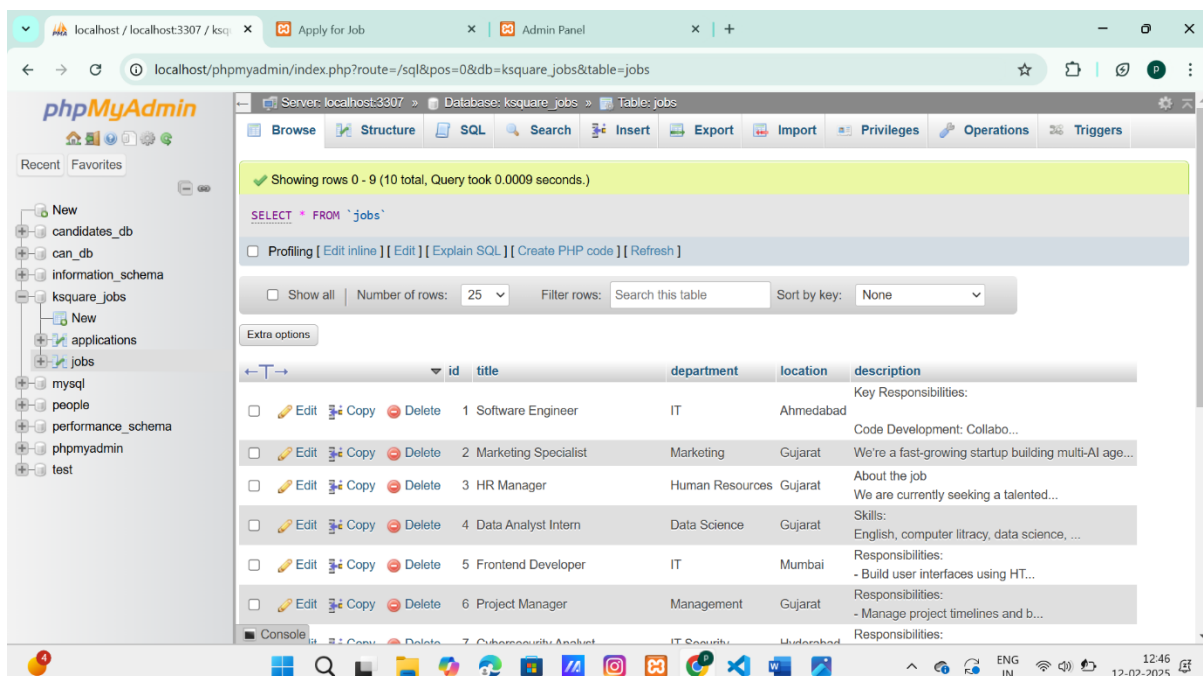
- These are the data of applicants stored in database.



The screenshot shows the phpMyAdmin interface for the 'ksquare_jobs' database. The 'applications' table is selected, and the SQL query 'SELECT * FROM `applications`' is executed. The table displays 3 rows of data:

| | id | job_id | name | email | phone | resume | cover_letter | applied_at |
|--------------------------|----|--------|-----------------------|---------------------------------|------------|----------------------------------|-------------------------------|---------------------|
| <input type="checkbox"/> | 1 | 3 | Prasanthi Palaparathi | prasanthim@gmail.com | 6345729834 | Priscilla Resume (2).pdf | Application for HR | 2025-02-11 22:43:56 |
| <input type="checkbox"/> | 4 | 1 | Priscilla Palaparathi | priscillapalaparathi7@gmail.com | 7382151305 | Priscilla Resume (1).pdf | hello | 2025-02-12 09:39:27 |
| <input type="checkbox"/> | 5 | 1 | Palaparathi Priscilla | priscillapalaparathi7@gmail.com | 7382151305 | Palaparathi Priscilla Resume.pdf | I am perfect fit for this job | 2025-02-12 11:57:23 |

- These are the jobs that we have added to our ksquare careers.



The screenshot shows the phpMyAdmin interface for the 'ksquare_jobs' database. The 'jobs' table is selected, and the SQL query 'SELECT * FROM `jobs`' is executed. The table displays 6 rows of data:

| | id | title | department | location | description |
|--------------------------|----|----------------------|-----------------|-----------|--|
| <input type="checkbox"/> | 1 | Software Engineer | IT | Ahmedabad | Key Responsibilities: Code Development: Collabo... |
| <input type="checkbox"/> | 2 | Marketing Specialist | Marketing | Gujarat | We're a fast-growing startup building multi-AI ago... |
| <input type="checkbox"/> | 3 | HR Manager | Human Resources | Gujarat | About the job We are currently seeking a talented... |
| <input type="checkbox"/> | 4 | Data Analyst Intern | Data Science | Gujarat | Skills: English, computer literacy, data science, ... |
| <input type="checkbox"/> | 5 | Frontend Developer | IT | Mumbai | Responsibilities: - Build user interfaces using HT... |
| <input type="checkbox"/> | 6 | Project Manager | Management | Gujarat | Responsibilities: - Manage project timelines and b... |

9.CONCLUSION

- The Ksquare Careers job portal is a fully functional system for job postings and applications.
- Despite challenges, the project was successfully implemented using PHP, MySQL, and Bootstrap, with improvements planned for scalability and security.
- It enables job seekers to easily browse and apply for jobs while allowing HR personnel to manage applications efficiently.