JOBEE - Job Portal

Graduation Project Presentation

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Outline

Overview

The project aims to develop a comprehensive job search platform that connects job seekers with employers in the computer science-related field. It features job-matching algorithms and resume management to enhance the job search experience for users.

Problem Statement

Current job search platforms often suffer from poor job-candidate matching, irrelevant job suggestions, and complex user interfaces, while employers struggle with filtering a large volume of applications to find suitable candidates.

Objective

- Create a user-friendly platform for job seekers and employers
- Implement advanced matching algorithms for more relevant job suggestions
- Ensure mobile compatibility and enhance data security

Motivation

The project is motivated by the need for a more effective and personalized job search experience, addressing gaps in existing platforms and providing better tools for both job seekers and employers.

Literature Review and Market Research

Previous Research or Solutions:
Job searching has evolved over time, transitioning from traditional paper-based methods to digital platforms. Key research papers and studies have examined this transition to online job portals, highlighting the impact of technology on job searching efficiency and accessibility.

Technologies Reviewed:
- HTML
- CSS
- JavaScript
- Bootstrap
- PHP
- Laravel

Existing Products/Competitor Analysis

LinkedIn:

- **Strengths:** Networking, integrated job search, and extensive candidate/company profiles.
- **Weaknesses:** Limited access to features for free users, overly broad job matches.
- **Unique Selling Point:** Social network plus job search.

Indeed:

- **Strengths:** Comprehensive listings, easy-to-use interface, job seeker reviews of companies.
- **Weaknesses:** Job filtering is basic, and there are limited advanced search options.
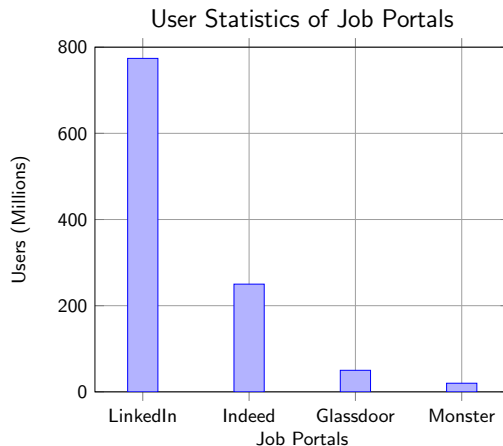- **Unique Selling Point:** Simplified job search for all industries.

User Statistics of Job Portals
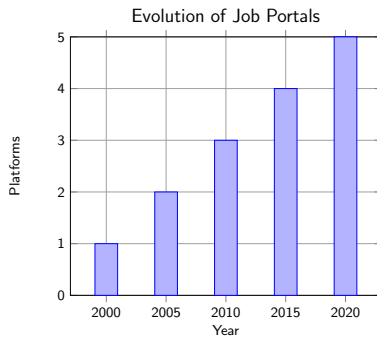
blue!20 **Job Portal**	**Users (Millions)**
LinkedIn	774
Indeed	250
Glassdoor	50
Monster	20

Table: User Statistics for Job Portals

Evolution of Job Portals

Evolution of Job Portals

Project Scope and Requirements

- **Functional Requirements**
  - User Registration and Profiles: Users (job seekers) can create and manage profiles.
  - Job Search and Filters: Job seekers can search for jobs using filters like location, job type, and job title.
  - Resume Upload: Users can upload and manage their resumes.
  - Job Application: Ability to apply for jobs directly through the platform.
- **Non-Functional Requirements**
  - Scalability: The platform should handle a large number of users simultaneously.
  - Security: Ensuring data privacy for sensitive information like resumes and employer data.
  - Performance: Quick search and response times, even with a large database of jobs and candidates.
  - Usability: The interface should be easy to navigate for users with varying technical skills.

Project Scope

- The platform will include the development of search algorithms, filtering options, and resume management.
- Target Users that looking for employment opportunities in various industries.

System Architecture

Overview
This architecture is a simple representation of how Jobee interacts with the web server and database.

- **Client (Browser):** End-users (job seekers) access the website.
- **Web Server:** Handles HTTP requests and runs the Laravel application (Apache).
- **Laravel Application:** Core of the website with models, controllers, views (Blade templates), and routes.
- **Database:** Stores job listings, user profiles, applications, etc. (MySQL).

System Architecture

system_architecture_diagram.png

key modules and components

Authentication and User Management

This module handles the registration, login, and management of different types of users on the platform.

- **Registration and Login:** Uses Laravel's built-in authentication system.
- **Role Management:** Controls access to specific features based on the user's role.
- **Profile Management:** Allows job seekers to manage personal profiles, upload resumes, and update contact information.

Laravel Features:

- Laravel Breeze: Provides authentication scaffolding.
- Laravel Policies and Gates: Manages authorization for user roles.

key modules and components

Job Listings Module

This is the core feature of Jobee, where job seekers browse job opportunities.

- **Job Search and Filtering:** Job seekers can search for jobs based on keywords, categories, locations, job types (full-time, part-time, remote).

Laravel Features:

- Eloquent ORM: For database interaction to store job posts.

key modules and components

Job Application Management

This module handles job applications by job seekers and facilitates the connection between job seekers and employers.

- **Application Submission:** Job seekers can apply for jobs, attach resumes.

Laravel Features:

- File Uploads: For resumes.

key modules and components

Dashboard (Admin, Job Seeker)

Different users interact with the job portal through dedicated dashboards tailored to their roles.

- **Admin Dashboard:** Manage users, job listings, site content, and analytics.
- **Job Seeker Dashboard:** Manage profiles, apply for jobs, save/bookmark jobs.

Laravel Features:

- Blade Templates: For dynamic and responsive dashboard layouts.

Technology Stack

Backend

Laravel (PHP), MySQL.

Frontend

Blade, HTML5, CSS3, Bootstrap, JavaScript.

Web Server

Apache.

Security

Laravel Auth, CSRF Protection.

Testing

PHPUnit.

Security Measures

- **Authentication & Authorization:** Laravel's built-in authentication with role-based access control (RBAC) for job seekers and admins.
- **CSRF Protection:** Laravel includes CSRF tokens by default for secure form submissions, preventing cross-site request forgery.
- **SQL Injection Prevention:** Eloquent ORM and prepared statements to prevent SQL injection attacks.
- **File Upload Security:** Validating file types to avoid malicious uploads.

Methodology Used

Waterfall Approach

The development of **Jobee** is structured using the **Waterfall Approach**. This ensures each stage is completed before moving on.

Development Tools

Visual Studio Code

XAMPP

*php**MyAdmin***

PHPMyAdmin

GitHub

Future Work

To elevate the user experience and streamline operations on **Jobee**, we plan to implement the following enhancements:

- Employer Dashboard: A comprehensive dashboard tailored for employers to manage job listings, monitor applications, and analyze hiring trends.
- Job Applications Tracking: A robust tracking system that allows both job seekers and employers to keep tabs on application statuses, ensuring transparency and timely follow-ups.
- Our immediate focus will be on the following strategic move:Initiating the development of a user-friendly mobile application to provide seamless access to Jobee's features on-the-go.

Conclusion

In conclusion, a well-designed job portal can significantly streamline the job search and recruitment process for both job seekers and employers. By incorporating user-friendly interfaces, advanced search filters, and efficient communication tools, job portals can bridge the gap between talent and opportunity. As the demand for skilled professionals continues to grow, having a robust and versatile job portal is crucial in helping users navigate the complexities of the job market and secure their dream roles. With a comprehensive approach and continual updates, job portals can remain indispensable tools in the ever-evolving world of employment.

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ANY
QUESTIONS

Thank You!