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***Section v20***

***SPR report***

1. **Project title**

Online job portal

It is a web base job portal focused on providing a streamlines job search and application experience.

1. **Stake holders**

* Job seeker
* Employers
* Administrators
* Platform owner
* Developer

1. **Scope of the Project**

The proposed job portal will cater to a diverse usei and will include:

* Job seeker registration, profile management, and application tracking.
* Employer job posting, candidate screening, and interview scheduling.
* Administrative tools for monitoring and maintaining the platform.
* Advanced features such as AI-driven job recommendations, resume parsing, and analytics.

1. **Functional Requirements**

Functional requirements define the specific features and functions that the online job portal must perform to meet the needs of its users.

**1.User Management**

**Registration**:

Job seekers, employers, and administrators can create accounts with (email, username, password).

**Login/Logout**:

Users can securely log in and log out using their accounts.

**Profile Management**:

Job seekers can create and update profiles with personal information, skills, experience, and resume uploads.

**Account Recovery**:

Users can reset forgotten passwords via email or other recovery.

**2.Job Management**

**Job Posting**:

Employers can post job openings with details like job title, description, required skills, salary, location, and application deadlines.

**Job Search**:

Job seekers can search for jobs using filters such as job title, location, salary range, skills, and industry.

**Application Tracking**:

Employers can track applications submitted for their job postings.

Job seekers can track the status of their applications (e.g., applied, shortlisted, rejected, etc.).

**Saved Jobs**:

Job seekers can bookmark or save jobs to apply later.

**3.Resume and Profile Matching**

**Resume Upload and Builder**:

Job seekers can upload resumes or use a built-in resume builder tool.

**Job Recommendations**:

The system provides job recommendations to job seekers based on their profile, skills, and past applications.

**Candidate Matching**:

Employers receive a list of recommended candidates based on the job requirements.

**4.Notifications and Alerts**

**Email/SMS Notifications**:

Users receive notifications about new job postings, application status updates, or account activity.

**Job Alerts**:

Job seekers can subscribe to job alerts based on specific criteria (e.g., skills, location).

**System Alerts**:

Administrators receive notifications for flagged or suspicious activities.

**5.Search and Filter Functionality**

**Advanced Search**:

Both job seekers and employers can perform advanced searches using multiple criteria (e.g., experience, education, skills).

**Filter Options**:

Search results can be filtered by parameters such as date posted, salary range, full-time/part-time, remote/on-site, etc.

**6.Communication Tools**

**Direct Messaging**:

Employers and job seekers can communicate directly through a secure messaging system.

**Interview Scheduling**:

Employers can schedule interviews and send notifications to shortlisted candidates.

**7.Admin Panel**

**User Management**:

Administrators can add, update, or deactivate user accounts (job seekers and employers).

**Job Post Management**:

Administrators can review, approve, or reject job postings.

**Content Moderation**:

Administrators can monitor and remove inappropriate content or flagged profiles.

**Reports and Analytics**:

Generate reports on platform usage, job trends, and revenue.

**8.Payment methods**

**Premium Memberships**:

Employers and job seekers can purchase premium plans for added benefits (e.g., increased visibility, advanced analytics).

**Payment Gateway Integration**:

Support for secure payment options (e.g., credit/debit cards, PayPal).

**Invoice Generation**:

Automatic generation of receipts for transactions.

**9.Security**

**User Authentication**:

Secure login with features like CAPTCHA and two-factor authentication (2FA).

**Data Protection**:

Encryption for sensitive data such as resumes and personal details.

**Role-Based Access Control (RBAC)**:

Different access levels for job seekers, employers, and administrators.

1. **Non-Functional Requirements**

Non-functional requirements define the quality attributes, system performance, and operational characteristics that the job portal must meet to ensure usability, reliability, and scalability.

**1.Performance Requirements**

**Response Time**:

The portal should respond to user actions (e.g., searches, profile updates) within **2 seconds**.

**Job Search**:

Job search results should be displayed within **3 seconds**, even for complex queriess

**2.Scalability**

**Data Volume**:

The system should manage **millions of job listings** and **user profiles** without impacting performance.

**3.Availability**

**Uptime**:

The platform should be available **99.9% of the time**, with planned downtime limited to off-peak hours.

**Redundancy**:

Use backup servers and failover mechanisms to ensure availability in case of server failures.

**4.Security Requirements**

**Data Encryption**:

Sensitive user data (e.g., passwords, resumes, and payment details) must be encrypted during storage and transmission.

**Authentication and Authorization**:

Implement strong user authentication, such as **two-factor authentication (2FA)**.

Ensure **role-based access control (RBAC)** to restrict access to sensitive data.

**5.Usability**

**User Interface (UI)**:

The portal should have an intuitive, user-friendly interface accessible to users with minimal training.

**Accessibility**:

Ensure compliance with **WCAG (Web Content Accessibility Guidelines)** for users with disabilities.

**6.Maintainability**

**Code Modularity**:

The system should have modular code to allow easy updates and feature additions.

**Documentation**:

Maintain comprehensive technical and user documentation for easy maintenance and troubleshooting.

**Bug Fixing**:

High-priority bugs should be resolved within **24 hours**.

**7.Reliability**

**Error Recovery**:

The system should recover automatically from minor errors without user intervention.

**Data Backup**:

Perform automatic daily backups to prevent data loss.

**Transaction Integrity**:

Ensure that transactions (e.g., job postings, payments) are completed without errors or data inconsistencies.

**8.Portability**

**Platform Independence**:

The portal should be accessible from various devices (e.g., desktops, tablets, mobile phones).

**Browser Compatibility**:

Support all modern browsers (e.g., Chrome, Firefox, Safari, Edge).

1. **Model**

For an online job portal, the Incremental Model is

It supports the development of a Minimum Viable Product (MVP) to go live early and gather user feedback.

You can prioritize and deliver essential features first (e.g., job search, user management), followed by enhancements.

The model is flexible, allowing adjustments based on evolving user needs or market trends.

It is less resource-intensive compared to Spiral but more flexible than Waterfall.

1. Conclusion

This job portal is a vital tool in bridging the gap between talent and opportunity, paving the way for a more connected and efficient workforce.