**Non-Functional Requirements**

### 1. Product Requirements

#### 1.1 Security Requirements

• User data must be encrypted.  
• The system should implement two-factor authentication (2FA) for recruiters and administrators.  
• Access to sensitive information should be controlled using Role-Based Access Control (RBAC).

#### 1.2 Dependability Requirements

• The system must have 99.9% uptime to ensure job seekers and recruiters can access it at all times.  
• It should implement automatic failover mechanisms in case of unexpected downtime.  
• The software should have redundant server backups to prevent data loss.

#### 1.3 Performance Requirements

• The platform must be optimized for fast load times (less than 2 seconds per page).  
• The database should handle large amounts of job applications without affecting response time.  
• The system should perform efficiently even under high traffic.

#### 1.4 Usability Requirements

• The software must have an intuitive user interface accessible on desktop, mobile, and tablet devices.  
• Forms should include real-time validation to ensure correct data entry.  
• The system should provide a guided workflow for job seekers and recruiters to enhance usability.

#### 1.5 Efficiency Requirements

• The system should return job search results within 2 seconds on average.  
• The application process should not take more than 3 seconds per candidate.  
• The system should be able to handle 500+ concurrent users without performance degradation.

#### 1.6 Space Requirements

• The software should use optimized database storage techniques to handle millions of records.  
• Logs should be archived after six months to free up space without losing important historical data.

### 2. Organizational Requirements

#### 2.1 Operational Requirements

• Automated data backups should be performed daily, with the ability to recover data within 5 minutes.  
• The system must allow for seamless updates and patches without downtime.

#### Integration with External Systems

• The system must integrate with LinkedIn, government employment databases, and online job boards.  
• It should support seamless communication with third-party HR systems and payroll providers.

#### Scalability and Performance Testing

• A testing environment must be set up to simulate increased load and ensure the system scales effectively.  
• Performance tests should be conducted regularly to measure response times and detect bottlenecks.

#### Environmental Requirements

**Technology Stack:**  
• Backend should be developed using Java.  
• Frontend should use HTML, CSS, JavaScript.  
• Databases should be SQL servers.

**Infrastructure & Hardware:**  
• The software should be hosted on scalable cloud-based infrastructure.  
• Server environments must comply with environmental and sustainability regulations.

**Software Dependencies:**  
• Operating system compatibility should include Windows, macOS, and Linux.  
• The system should integrate with third-party APIs for background checks and professional certifications.

**Network Requirements:**  
• The system should use secure HTTPS protocols for all communication.  
• Minimum bandwidth requirements should ensure smooth operation even in remote areas.

**Data Storage and Management:**  
• Storage capacity must be sufficient for resume uploads, job postings, and multimedia content.  
• Secure backup locations must be identified, with encryption for stored data.

### 3. External Requirements

#### 3.1 Legislative Requirements

• All employment contracts and agreements must comply with regional labor laws.  
• User consent must be obtained before storing personal and professional information.

#### 3.2 Ethical Requirements

• The job-matching algorithm should be fair and unbiased, ensuring equal opportunity for all applicants.  
• Job postings should be verified to prevent fraudulent listings.  
• AI-based job matching should ensure fairness, avoiding biases based on age, gender, ethnicity, or other protected characteristics.  
• The system must be transparent about how candidate recommendations are made.

#### 3.3 Accounting Requirements

• The system should generate automated invoices for employers using the platform.  
• It must support secure payment gateways for job placement fees.

#### 3.4 Safety/Security Requirements

• The platform should have protection against cyber threats.  
• Secure login methods should be enforced.