**Software Requirements Specification (SRS) for CareerGuide**

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**1. Introduction**

**1.1 Purpose**

The purpose of this document is to define the software requirements for **CareerGuide**, an interactive platform designed to address the lack of effective career counseling in schools. CareerGuide aims to provide personalized career recommendations, integrate real-time job market insights, and offer engaging tools and resources to enhance student decision-making.

**1.2 Scope**

CareerGuide is an online career counseling platform focused on empowering students with informed career choices. The platform leverages AI-driven insights, real-time market data, and interactive tools to guide students in aligning their skills and interests with industry demands. It provides resources for both students and educators to enhance career exploration and decision-making processes.

**1.3 Definitions, Acronyms, and Abbreviations**

* **AI**: Artificial Intelligence
* **UI**: User Interface
* **RDBMS**: Relational Database Management System
* **REST API**: Representational State Transfer Application Programming Interface

**1.4 References**

* Research papers on career guidance systems
* Django and React documentation
* Industry market trends and job demand reports

**2. Overall Description**

**2.1 Product Perspective**

CareerGuide is a centralized platform developed for educational institutions to provide career guidance. It utilizes modern web technologies such as Django REST API for backend processing and ReactJS for a responsive front-end interface. The integration of MySQL ensures efficient management of user data and career resources.

**2.2 Product Features**

1. **Personalized Career Recommendations**: Custom career paths based on student assessments.
2. **Market Data Integration**: Real-time industry insights ensure relevant advice.
3. **Interactive Exploration Tools**: Virtual simulations and gamified elements for career exploration.
4. **Comprehensive Resources**: Educational pathways, skill requirements, and mentorship options.
5. **Feedback Mechanisms**: User input guides platform enhancements.

**2.3 User Classes and Characteristics**

* **Students**: Primary users seeking career guidance.
* **Educators**: Teachers and counselors aiding students.
* **Administrators**: Manage platform operations and updates.

**2.4 Constraints**

* Adherence to accessibility guidelines to support diverse users.
* Ensuring real-time updates without impacting performance.
* Compatibility across multiple devices and operating systems.

**3. Specific Requirements**

**3.1 Functional Requirements**

1. **User Registration and Profiles**:
   * Allow users to create and manage profiles.
   * Store preferences, assessments, and interaction history.
2. **Career Assessments**:
   * Provide quizzes to evaluate interests, strengths, and skills.
   * Generate personalized career recommendations based on results.
3. **Interactive Tools**:
   * Chatbot for initial career queries.
4. **Resource Management**:
   * Maintain a library of career pathways, job trends, and mentorship options.
   * Update resources regularly based on market data.
5. **Mentorship Matching**:
   * Connect students with mentors based on career interests.
6. **Feedback Mechanisms**:
   * Enable users to submit feedback on platform features.
   * Use feedback for iterative improvements.

**3.2 Non-Functional Requirements**

1. **Performance**:
   * Latency: Response time under 2 seconds for all interactions.
   * Scalability: Support up to \_ concurrent users.
2. **Security**:
   * Data encryption for secure communication and storage.
   * Role-based access controls.
3. **Usability**:
   * Intuitive interface with minimal learning curve.
   * Support for multilingual interactions.
4. **Compatibility**:
   * Cross-platform support for web, Android, and iOS.

**4. System Models**

**4.1 Flowchart**

1. User logs in/registers on the platform.
2. Completes assessment or interacts with career exploration tools.
3. User accesses resources or connects with mentors.
4. Feedback is collected for platform improvement.

**4.2 System Architecture**

* **Frontend**:
  + Built with ReactJS for responsiveness and interactivity.
* **Backend**:
  + Django REST API for handling business logic.
* **Database**:
  + MySQL for efficient data management.
* **AI Integration**:
  + AI chatbot for personalized career recommendations.

**5. Other Requirements**

**5.1 Legal and Ethical Concerns**

* Compliance with data protection regulations like GDPR.
* Ensuring unbiased career recommendations.

**5.2 Assumptions and Dependencies**

* Users have internet-enabled devices.
* Availability of accurate and updated market data.