Software Requirements Specification (SRS)

1. Introduction

1.1 Purpose

This document will define the Software Requirements Specification (SRS) for automating form approvals, including medical forms and reimbursement forms. The system is meant to automate the approval process in such a way that it will minimize manual intervention, increase accuracy, and maximize efficiency.

1.2 Document Conventions

- Bold text is used for emphasis.
- Numbered lists are used to describe steps or sequential processes.
- Tables are used to present detailed information.

1.3 Intended Audience

- Project Stakeholders: For understanding project goals and scope.
- Development Team: For technical implementation.
- Quality Assurance Team: For validation and verification of requirements.
- End Users: For insights into system functionality and usability.

1.4 Additional Information

This system is meant to be scalable and adaptable for use in any organization that requires

1.5 Contact Information/SRS Team Members

- **Team Lead:** M. Ahmad Raza K.– AP22110010453
- **Members:**

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1.6 References

- IEEE Standard for Software Requirements Specifications (IEEE 830-1998).
- Relevant APIs and software documentation for integration.

2. Overall Description

2.1 Product Perspective

The automation system is an independent software application that integrates with existing organizational systems for document handling and approval. It is designed to digitize and streamline form approvals while maintaining compliance with organizational policies.

2.2 Product Functions

- Form submission and tracking.
- Automated validation of form data.
- Notification and alert generation.
- Multi-level approval workflows.
- Integration with third-party systems for verification.

2.3 User Classes and Characteristics

- Submitters: Employees or individuals submitting forms.
- Approvers: Managers or administrators responsible for approvals.
- System Administrators: IT personnel managing system configurations.

2.4 Operating Environment

- Hardware: Minimum 8GB RAM, 2.5 GHz processor, 500GB storage.
- Software: Compatible with Windows, macOS, and Linux. Supports modern web browsers (Chrome, Firefox, Edge).
- Network: Stable internet connection for seamless operation.

2.5 User Environment

Users will interact with the system through a web-based interface or a mobile application, both of which are designed for ease of use.

2.6 Design/Implementation Constraints

- Compliance with organizational and regulatory standards.
- Support for role-based access control (RBAC).
- Adherence to secure coding practices.

2.7 Assumptions and Dependencies

- Users will have basic knowledge of digital systems.
- The organization provides the necessary infrastructure.
- Integration APIs are available for external systems.

3. External Interface Requirements

3.1 User Interfaces

- Web Interface: Responsive and user-friendly.

3.2 Hardware Interfaces

- Interaction with barcode scanners or biometric devices (if required).

3.3 Software Interfaces

- Integration with document management systems.
- APIs for external data validation.

3.4 Communication Protocols and Interfaces

- HTTPS for secure data transmission.

4. System Features

4.1 System Feature A: Form Submission

4.1.1 Description and Priority

Enable users to submit forms through a web or mobile interface. High priority.

4.1.2 Action/Result

- User fills out the form.
- System validates inputs and confirms submission.

4.1.3 Functional Requirements

- Real-time data validation.
- Auto-save feature.
- Support for file attachments.

4.2 System Feature B: Approval Workflow

4.2.1 Description and Priority

Facilitate multi-level approval workflows. High priority.

4.2.2 Action/Result

- Notifications sent to approvers.
- Approvers can approve/reject forms with comments.

4.2.3 Functional Requirements

- Role-based approvals.
- Notification reminders.
- Audit trail for approvals.

5. Other Nonfunctional Requirements

5.1 Performance Requirements

- System should handle 500 concurrent users.
- Form submission and approval actions should not exceed 2 seconds.

5.2 Safety Requirements

- Data backups every 24 hours.
- Recovery mechanism for incomplete submissions.

5.3 Security Requirements

- Data encryption in transit and at rest.
- Multi-factor authentication (MFA) for approvers.

5.4 Software Quality Attributes

- Usability: Simple and intuitive design.
- Reliability: 99.9% uptime.
- Maintainability: Modular codebase for easy updates.

5.5 Project Documentation

- Requirements documentation.
- Design and architecture diagrams.
- Test cases and reports.

5.6 User Documentation

- User manuals.
- FAQs and troubleshooting guides.

6. Other Requirements

- Scalability to accommodate future feature enhancements.
- Support for multiple languages.

Appendix A: Terminology/Glossary/Definitions List

- RBAC: Role-Based Access Control.
- API: Application Programming Interface.
- MFA: Multi-Factor Authentication.

Appendix B: To Be Determined

- Specific integration APIs for third-party systems.
- Final list of supported languages.