Software Requirements Specification (SRS)

Insurance Policy Management System

1. Introduction

1.1 Purpose

This document defines the functional and non-functional requirements for the Insurance Policy Management System, covering policy issuance, renewals, and claims. It will serve as a reference for business analysts, developers, QA engineers, and stakeholders.

1.2 Intended Audience

- Business Analysts
- Developers
- QA/Test Engineers
- Product Owners
- Compliance & Underwriting
- System Administrators

1.3 Assumptions

- Users have valid credentials and assigned roles.
- Policy data will be stored in a relational database.
- Premium calculation rules are predefined and approved.

2. System Overview

The system simulates core insurance lifecycle processes. Users can:

- Create customer profiles
- Issue insurance policies
- Renew expiring policies
- Submit and evaluate claims
- View policy and claims status

3. Functional Requirements

3.1 Customer Management

ID	Requirement
FR-1	The system shall allow creation, updating, and deletion of customer records
FR-2	The system shall validate unique customer IDs
FR-3	The system shall store demographic and contact details

3.2 Policy Issuance

ID	Requirement
FR-4	The system shall allow selection of policy type, coverage tier, and start date
FR-5	The system shall calculate premium based on age, coverage, and risk score
FR-6	The system shall generate a unique policy number
FR-7	The system shall issue and activate the policy

3.3 Policy Renewal

ID	Requirement
FR-8	The system shall trigger renewal notifications 30 days prior to expiry
FR-9	The system shall allow premium recalculation based on updated risk factors
FR-10	The system shall apply grace period logic

3.4 Claims Processing

ID	Requirement
FR-11	The system shall allow claim submission with required evidence
FR-12	The system shall validate policy eligibility and coverage limits
FR-13	The system shall allow claims adjusters to approve or reject claims
FR-14	The system shall update payout history

3.5 Role-Based Access

ID	Requirement
FR-15	The system shall restrict access based on user role (admin, adjuster, support)
FR-16	The system shall log all policy updates

4. Non-Functional Requirements

4.1 Performance

- NRF-1: Average API response time < 2 seconds
- NRF-2: The system shall support 100 concurrent users

4.2 Reliability

- NRF-3: System uptime shall be ≥ 99%

4.3 Security

- NRF-4: Sensitive fields (DOB, address) shall be masked for non-privileged roles
- NRF-5: All access must be authenticated

4.4 Usability

- NRF-6: UI shall display status indicators for policy and claims

5. Data Dictionary

Entity	Attributes	Description
Customer	customer_id, name, age, address, contact	Policyholder details
Policy	policy_id, policy_type, coverage, premium, status, expiry_date	Insurance policy master
Claim	claim_id, policy_id, evidence, decision, payout_amount	Request for compensation
User	user_id, role, permissions	Platform access control

6. Business Rules

Rule ID	Description
BR-1	Policies cannot be issued for customers under 18
BR-2	Claims cannot be submitted on expired policies
BR-3	Premium increases 10–20% at renewal if risk increases
BR-4	Claims above threshold must be auto-escalated

7. User Stories

- As a **customer support agent**, I want to search policies by customer ID so I can resolve inquiries faster.
- As a **claims adjuster**, I want to approve or reject claims based on documentation.
- As a **system admin**, I want to assign roles to ensure proper access.

8. Acceptance Criteria

- Users can successfully create a policy with valid data.
- Claims cannot be submitted beyond coverage limit.
- Renewal reminders must be generated 30 days prior.

9. Constraints

- Regulatory rules cannot be overridden.
- Policy pricing logic must follow actuarial guidelines.

10. Risks

Risk	**Impact**
Incorrect premium calculation	Revenue loss
Delayed claim handling	Customer dissatisfaction
Poor access control	Data breach

11. Audit & Logging

- All policy modifications must include a timestamp and operator ID.

12. Future Enhancements

- Fraud scoring engine
- Customer portal
- Agent commissions
- Mobile app interface