**Buddies Insurance**

**Functional Requirement Document**

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**FIGURE TABLE**

**1. Introduction**

* **1.1 Purpose:** This document outlines the functional and non-functional requirements for the new insurance platform. It describes the features and qualities that the system must possess to meet the needs of its users and stakeholders.
* **1.2 Intended Audience:** This document is intended for the development team, project managers, stakeholders, business analysts, and quality assurance teams involved in the project.
* **1.3 Scope:** This document covers the core functionalities of the insurance platform, including user management, policy management for Motor, Health, and Product insurance, claims processing, and specific features for each insurance type. It also outlines the non-functional requirements related to the system's performance, usability, reliability, and scalability.
* **1.4 Overview:** The insurance platform aims to provide a comprehensive online solution for customers to obtain insurance quotes, purchase and manage policies, and file claims for Motor, Health, and Product insurance. The platform will also support agents in assisting customers and administrators in managing the system and generating reports. Customer service representatives will utilize the platform to provide support to customers.

**2. Functional Requirements**

**2.0 Home Page**

* **When the user clicks on the link ……………………….. the following home page will be shown.**

A screenshot of a computer

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Fig.1 Home Page

* **The footer page of the home page will look like the following image.**

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Fig 2 Footer page of the home page

* **2.1 Feature: User Management**
  + **2.1.1 User Registration:**
    - The system shall allow new users to register with their personal details (name, address, contact information, etc.).
    - The system shall differentiate between customer and agent registration processes (e.g., agents might require additional professional details and verification).
    - The system shall implement secure password management (e.g., password complexity requirements, password reset functionality) for all user types.
    - The system shall support email/SMS verification for new registrations.

A screenshot of a login form

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Fig 3. Registration Page

* + **2.1.2 User Login:**
    - Registered users (customers, agents, administrators, customer service representatives) shall be able to log in securely using their respective credentials.
    - The system shall authenticate users based on their roles and grant access to relevant functionalities.
    - The system shall support "remember me" functionality.
    - The system shall provide role-specific password recovery options.

A screenshot of a login form

AI-generated content may be incorrect. Fig 4.User login page

* + **2.1.3 User Profile Management:**
    - Logged-in users shall be able to view and initially there are no policies for new user so I t shows “Failed to load policies : No data received from server” message.
    - Customers shall be able to manage their saved addresses and payment methods.
* A screenshot of a computer

  AI-generated content may be incorrect.

Fig 5. User Home Page after login

* **2.2 Feature: Policy Management**
  + **2.2.1 Policy Creation/Quotation:**
    - The system shall allow users (and agents on their behalf) to generate insurance quotes for **Motor**, **Health**, and **Product** insurance.
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  AI-generated content may be incorrect.

Fig 6.Policy Selection

* + **2.2.1.1 Motor Insurance:**

* + - The user has to enter the vehicle registration number then clicks on the search icon which is located at the right of the Vehicle registration number text box.
    - The system shall load relevant vehicle details (make, model, year, registration number, Year, Fuel Type etc.).
* A screenshot of a website

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Fig 7 Motor Insurance

* + **2.2.1.2 Health Insurance:**
    - The User should see the below page to select the type of Health insurance.

A screenshot of a health insurance form

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Fig 8 Health Insurance

* + Next the user will select the plan from the available plans, The next page should be entering personal details of the user ,will look like below

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AI-generated content may be incorrect.

Fig 9. Personal Details Of User

* + After entering all the personal details clicks Review Button, the user will see the preview of entered details , it will look like below.

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A screenshot of a computer

AI-generated content may be incorrect.

Fig 10.Review And ConfirmPay

* + Then the user clicks confirm and pay the user will see the submission like

A white background with black text

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Fig.11 Confirmation of policy creation

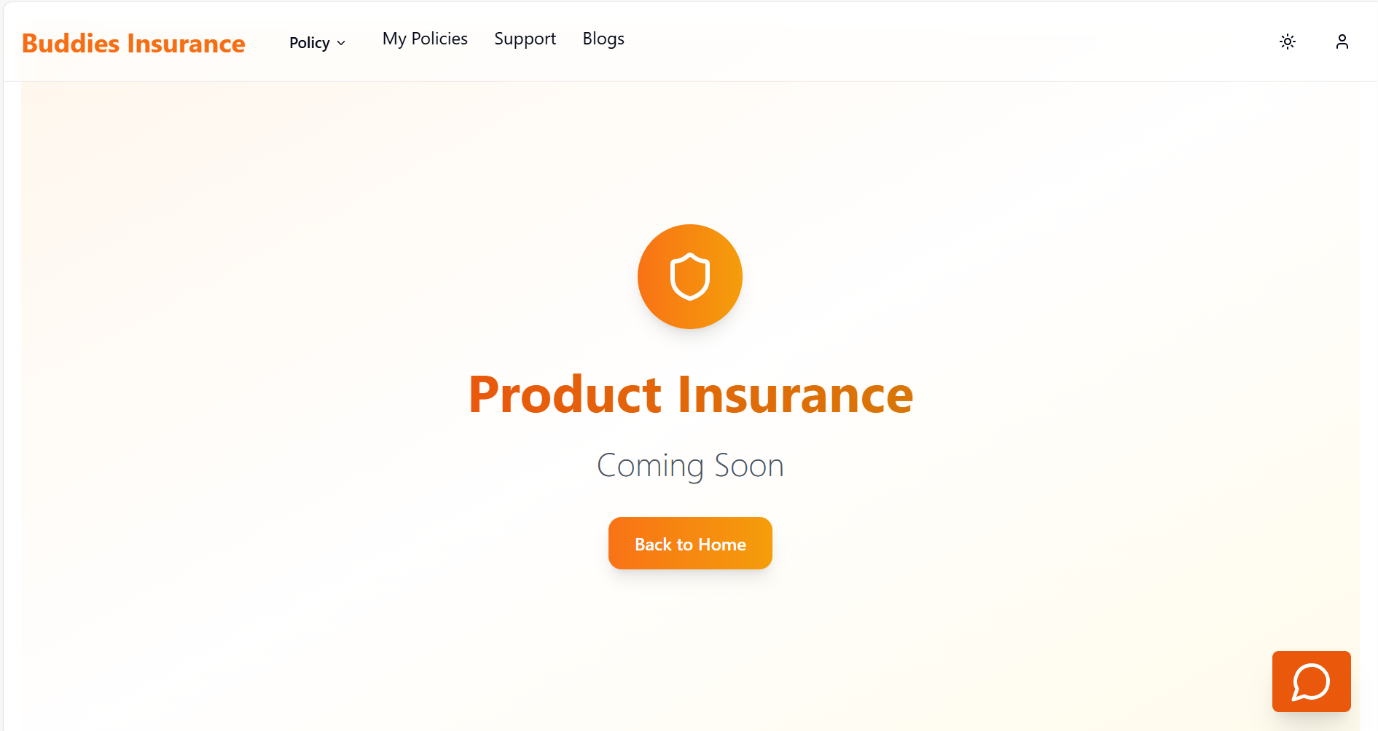
* + **2.2.1.3 Product Insurance:**
    - When the user chooses to take Product insurance,
    - The product Insurance feature is yet to add and it is chosen as the future implementation for now.
* 

Fig 12. Product Insurance

* + **2.2.2 Policy Purchase/Renewal:**
    - Users shall be able to purchase policies online for Motor, Health, and Product insurance through secure payment gateways.
    - The system shall generate policy documents specific to the purchased insurance type upon successful purchase.
    - The system shall notify users about upcoming policy renewals for all their active policies.
    - Users shall be able to renew their policies online.
    - The system shall support automatic renewal options (with user consent).

**2.2.3 Policy View/Management:**

* + - Logged-in users shall be able to view details of their active and past policies for Motor, Health, and Product insurance.
    - Users shall be able to download policy documents specific to each policy.
    - The system shall allow users to make certain policy modifications (e.g., address change, nominee updates, product details update for Product insurance), subject to approval and policy terms.
* **2.3 Feature: Health Insurance Specific Features**

**2.3.1 Claim Intimation for Health Insurance:**

* + - The claim initiation process shall be adapted to capture specific details relevant to health insurance claims (e.g., hospital details, doctor's information, nature of illness).
    - Users shall be able to enter the Reason for requesting the cliam and discharge summaries.

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Fig13.Request claim

After user requested the claim for a policy the user can track the status of the claim , so that user will know whether the request is accepted or not as shown below.

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Footer page of the home page will have a feature of “Track claim ”. Clicking on that User enter the claim id and clicks on the track claim button, the user will see all the details of the claim including its status , like mentioned below.

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Fig.14 Track Claim

* **2.4 Feature: Product Insurance Specific Features**
  + **2.4.1 Claim Intimation for Product Insurance:**
    - The claim initiation process (Section 2.6.1) shall be adapted to capture specific details relevant to product insurance claims (e.g., details of damage/loss, purchase date, proof of purchase).
    - Users shall be able to upload p
    - Photos/videos of the damaged product or relevant evidence.
  + **2.4.2 Repair/Replacement Options:**
    - The system may provide options for repair or replacement of the insured product based on the policy terms and the nature of the claim.
    - The system may facilitate the coordination of repair services or the shipment of replacement products.
* **2.5 Feature: Notifications and Communication**
  + **2.5.1 Email/SMS Notifications:**
    - The system shall send automated notifications for key events (e.g., registration confirmation, policy purchase, renewal reminders, claim updates, payment confirmations).
    - Users shall be able to manage their notification preferences.
  + **2.5.2 In-app Messaging:**
    - The system may include an in-app messaging feature for communication between users, agents, and administrators.
* **2.6 Feature: Reporting and Analytics (Admin Functionality)**
  + **2.6.1 Policy Dashboard:**
    - Administrators shall be able to generate reports on policy sales, renewals, and other relevant metrics, segmented by insurance type (Motor, Health, Product).

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Fig 15. Admin Dashboard

* + - The admin will be able to click policy management and see the policies of the users like below

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Fig 16.Policy Details of user

The admin can change the status of the policy into active , expired and cancelled only if the status of the policy is active admin can change the premium like below.

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**Fig 17. Edit Policy**

* + **2.6.2 Claim Reports:**
    - Administrators shall be able to generate reports on claim volumes, processing times, and payout amounts, segmented by insurance type.
    - The admin can click the claim management and will see the claim details of the users.

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Fig 18.Claim Management

* + The user can edit the details of the claim for the particular customer, can make the claim amount to suitable constant according to the reasons determined by the user,change the status of the claim to accept, reject etc…,

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Fig 19.Edit Claim details

* + **2.6.3 User Reports:**
    - Administrators shall be able to generate reports on user demographics and activity.
    - Admin can see the details of the users of the application and it looks like

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AI-generated content may be incorrect.

Fig 20.User Management

Feature: Chatbot

User can click on the chatbot icon which is located at the bottom right of the home page, will take few minutes to load and reply to user.

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Fig 21.Chatbot Interface

**3. Non-Functional Requirements**

* **3.1 Performance**
  + **3.1.1 Response Time:** The system should ensure that key user actions, such as searching for policies, submitting claims, and calculating premiums, are completed within 2-3 seconds to provide a smooth user experience.
  + **3.1.2 Throughput:** The system must be capable of handling up to 1000 simultaneous users, including agents, customers, and administrators, without a noticeable drop in performance.
  + **3.1.3 Data Processing:** Critical batch operations, such as policy renewals, premium computations, and claim processing, should be finalized within a specified period, e.g., daily within 4 hours, to maintain efficiency.
* **3.2 Usability**
  + **3.2.1 Ease of Use:** The system should have a user-friendly interface that makes it easy for all user roles, including agents, underwriters, and customers, to navigate and complete tasks.
  + **3.2.2 Accessibility:** The system should strive to comply with relevant accessibility standards to ensure usability.
  + **3.2.3 User Guidance:** The system should provide clear instructions, tooltips, and error messages to help users through processes such as creating policies, filing claims, and making premium payments.
* **3.3 Reliability**
  + **3.3.1 Availability:** The system should be operational 99.9% of the time during business hours (e.g., 9:00 AM to 6:00 PM IST, Monday to Friday) to ensure continuous access for agents and customers.
  + **3.3.2 Fault Tolerance:** The system shall be designed to minimize the impact of hardware or software failures and ensure data integrity through redundancy and error handling.

**GitHub Link:**

**Front End ->** [**https://github.com/drcleverin/Proj-FE/**](https://github.com/drcleverin/Proj-FE/)

**Back End ->** [**https://github.com/drcleverin/BE-INS/**](https://github.com/drcleverin/BE-INS/)

**Sql query:**

create database insdb;

use insdb;

select \* from roles;

show tables;

select \* from insurance\_plans;

desc policies;

select \* from policies;

Insert into roles values (1,"ADMIN"),(2,"CUSTOMER"),(3,"CSR"),(4,"UNDERWRITER");

select \* from users;

delete from users where user\_id=6;

select \* from insurance\_plans;

INSERT INTO insurance\_plans

(plan\_id, base\_premium, coverage, description\_about\_policy, plan\_name, plan\_type)

VALUES

(1, 3500.00, 500000.00, 'This plan is tailored for individuals seeking comprehensive health coverage. It offers a base premium of ₹3,500 and a substantial coverage amount of ₹5,00,000. Key Features: Extensive Hospitalization Coverage: Enjoy seamless financial protection for medical expenses incurred Pre & Post Hospitalization, ensuring you''re covered before admission and during your recovery period. Day Care Procedures: Get coverage for advanced medical treatments that don''t require 24-hour hospitalization, such as cataract surgery or chemotherapy. Ambulance Charges: Rest assured that the cost of emergency ambulance services will be covered, providing peace of mind during critical situations. Annual Health Check-up: Prioritize your well-being with a complimentary Annual Health Check-up, helping you stay proactive about your health. No Claim Bonus: Benefit from a No Claim Bonus for every claim-free year, increasing your sum insured without raising your premium. Tax Benefits: Avail tax benefits under Section 80D of the Income Tax Act for premiums paid. This plan is ideal for single individuals who want dedicated and focused health protection.', 'Individual Health Plan', 'Health'),

(2, 8500.00, 1000000.00, 'Designed to protect your entire family under a single policy, this plan offers a base premium of ₹8,500 and a generous coverage amount of ₹10,00,000. The shared sum insured ensures that any family member can utilize the coverage when needed. Key Features: Comprehensive Family Coverage: Protect your entire family (self, spouse, and up to a specified number of children) under a single policy with a shared sum insured. Maternity Coverage: This policy includes Maternity Coverage, providing financial support for delivery expenses, both normal and C-section, and pre/post-natal care. Child Vaccination: We cover essential Child Vaccination costs, promoting your child''s healthy development from the start. Critical Illness Cover: Gain additional financial security with Critical Illness Cover, providing a lump sum payout upon diagnosis of specified critical illnesses like cancer or heart attack. Worldwide Emergency Coverage: Travel with confidence knowing you have Worldwide Emergency medical coverage for unforeseen health issues abroad. Organ Donor Expenses: Coverage for medical expenses related to organ donation, if you are a donor or recipient. Health and Wellness Programs: Access to health and wellness programs and discounts on consultations. This plan offers comprehensive and flexible coverage, making it perfect for families seeking complete peace of mind.', 'Family Floater Plan', 'Health'),

(3, 12000.00, 700000.00, 'Tailored specifically for individuals in their golden years, this plan provides robust health coverage for those up to 80 years of age, with a base premium of ₹12,000 and coverage of ₹7,00,000. Key Features: Extended Age Limit: Provides coverage for individuals up to 80 years of age, ensuring continued access to quality healthcare in later life. No Medical Check-up Required: In most cases, a No Medical Check-up is required for policy issuance, simplifying the enrollment process. Pre-existing Diseases Covered: After a specified waiting period, Pre-existing Diseases are Covered, ensuring you receive care for ongoing conditions. Home Nursing Care: Get financial support for Home Nursing services, allowing you to recover comfortably in your own environment. Ayurveda Treatment: Embrace traditional Indian medicine with coverage for Ayurveda Treatment, promoting holistic well-being. Geriatric Care: Access specialized Geriatric Care services, focusing on the unique health needs of seniors. Emergency Ambulance Services: Coverage for emergency ambulance transport. Lifelong Renewability: Enjoy the security of Lifelong Renewability, ensuring your coverage continues as long as you need it. This plan focuses on the unique health needs of senior citizens, offering peace of mind and comprehensive support.', 'Senior Citizen Plan', 'Health');

INSERT INTO insurance\_plans

(plan\_id, base\_premium, coverage, description\_about\_policy, plan\_name, plan\_type)

VALUES

(4, 2500.00, 0.00, 'This plan is the mandatory legal requirement for all vehicle owners in India, offering a base premium of ₹2,500. Key Features: Mandatory Legal Coverage: As per the Motor Vehicles Act, 1988, this policy is compulsory for all vehicles plying on Indian roads. Covers Damage/Injury to Third Party: Provides financial protection against legal liabilities arising from an accident that causes bodily injury, death, or property damage to a third party. This includes compensation for the third party''s medical expenses, loss of income, and vehicle repair costs. No Own Damage Cover: It''s important to note that this policy does NOT cover any damage to your own vehicle. For protection against damages to your own vehicle, a Comprehensive Motor Plan is required. Financial Protection: Safeguards you from potential legal hassles and financial burdens that can arise from third-party claims. Unlimited Liability for Bodily Injury/Death: There is no limit on the amount of compensation for bodily injury or death of a third party. This plan is essential for legal compliance and basic protection against third-party claims.', 'Third Party Liability', 'Motor'),

(5, 7800.00, 1000000.00, 'The Comprehensive Motor Plan offers extensive protection for your vehicle with a base premium of ₹7,800 and a coverage amount of ₹10,00,000 (which typically refers to the Insured Declared Value or IDV of the vehicle, or a sum for personal accident cover). Key Features: Own Damage Cover: Provides financial coverage for damages to your own vehicle due to a wide range of perils, including accidents, fire, theft, natural calamities (earthquakes, floods, cyclones, etc.), and man-made disasters (riots, strikes, malicious acts). Third Party Liability: Includes the mandatory Third Party Liability cover, protecting you against financial and legal liabilities arising from damage, injury, or death to a third party. Personal Accident Cover (Owner-Driver): Offers compulsory personal accident cover for the owner-driver, providing compensation in case of accidental death or permanent total disability. Add-on Options Available: Enhance your policy with various add-ons such as Zero Depreciation, Roadside Assistance, Engine Protector, Consumables Cover, and Return to Invoice cover, for a small additional premium. No Claim Bonus (NCB): Earn a No Claim Bonus for every claim-free year, significantly reducing your renewal premium over time. This plan is highly recommended for complete peace of mind, offering robust protection for both your vehicle and third-party liabilities.', 'Comprehensive Motor Plan', 'Motor'),

(6, 9500.00, 0.00, 'The Zero Depreciation Add-on is a highly recommended enhancement for your Comprehensive Motor Plan, with an additional premium of ₹9,500 (this value typically varies based on vehicle type and IDV, suggesting a premium for the add-on itself). While the coverage amount is listed as 0.00 in the base table, its value lies in maximizing your claim payout. Key Features: Full Claim for Parts Without Depreciation: This add-on ensures that in the event of a claim, you receive the full cost of replacing vehicle parts without any deduction for depreciation. Normally, without this add-on, the insurer deducts a certain percentage for depreciation from the cost of replaced parts. Ideal for New Vehicles: Particularly beneficial for new cars, as it ensures you get the maximum value for parts replacement in case of damage. Reduces Out-of-Pocket Expenses: Significantly lowers your out-of-pocket expenses during repairs after an accident, as you don''t have to bear the depreciation cost. Available with Comprehensive Policy Only: This add-on can only be purchased in conjunction with a Comprehensive Motor Plan, as it enhances the own damage component of that policy. Maximizes Claim Payouts: Effectively acts as a shield against the financial impact of depreciation on your vehicle''s parts during claim settlement, ensuring you get the most out of your insurance. This add-on is highly recommended for new vehicle owners or those who want to minimize their financial burden during repairs.', 'Zero Depreciation Add-on', 'Motor');

update insurance\_plans set coverage=950000 where plan\_id=6;

Select \* from vehicles;

INSERT INTO vehicles (vehicle\_id, chassis\_number, engine\_number, fuel\_type, model, registration\_number, year) VALUES

(1, 'CHS001A1', 'ENG001A1', 'Petrol', 'Hyundai i20', 'DL10AB1234', 2020),

(2, 'CHS001A2', 'ENG001A2', 'Diesel', 'Maruti Swift', 'KA05CN7865', 2019),

(3, 'CHS001A3', 'ENG001A3', 'Electric', 'Tata Nexon EV', 'MH12DE1432', 2023),

(4, 'CHS001A4', 'ENG001A4', 'Petrol', 'Kia Seltos', 'TN07ZX9999', 2021),

(5, 'CHS001A5', 'ENG001A5', 'CNG', 'Maruti WagonR', 'GJ01BR5555', 2018),

(6, 'CHS001A6', 'ENG001A6', 'Diesel', 'Mahindra Thar', 'UP32AX7733', 2022),

(7, 'CHS001A7', 'ENG001A7', 'Petrol', 'Honda City', 'AP09HY2002', 2020),

(8, 'CHS001A8', 'ENG001A8', 'Electric', 'MG ZS EV', 'WB20JK3456', 2024),

(9, 'CHS001A9', 'ENG001A9', 'Diesel', 'Ford EcoSport', 'CH01DF8888', 2017),

(10, 'CHS001B1', 'ENG001B1', 'Petrol', 'Renault Kwid', 'HR26UX4321', 2019),

(11, 'CHS001B2', 'ENG001B2', 'Petrol', 'Toyota Innova', 'RJ14CT2121', 2021),

(12, 'CHS001B3', 'ENG001B3', 'Diesel', 'Hyundai Creta', 'KL07KP8989', 2020),

(13, 'CHS001B4', 'ENG001B4', 'CNG', 'Tata Punch', 'MP09AB3434', 2023),

(14, 'CHS001B5', 'ENG001B5', 'Petrol', 'Skoda Slavia', 'BR01PQ9012', 2022),

(15, 'CHS001B6', 'ENG001B6', 'Diesel', 'Volkswagen Polo', 'CG10EE3838', 2018),

(16, 'CHS001B7', 'ENG001B7', 'Petrol', 'Suzuki Baleno', 'OR05UV7777', 2024),

(17, 'CHS001B8', 'ENG001B8', 'Electric', 'BYD Atto 3', 'AS01DN2468', 2023),

(18, 'CHS001B9', 'ENG001B9', 'Petrol', 'Honda Amaze', 'JK02MN1122', 2017),

(19, 'CHS001C1', 'ENG001C1', 'Diesel', 'Mahindra XUV700', 'PB10FX9640', 2022),

(20, 'CHS001C2', 'ENG001C2', 'Petrol', 'Toyota Glanza', 'TS09GH6712', 2019);