Project Name: "Insurance Hub"
Branch PG-DAC Aug-2024

Documentation On
"Insurance Hub"

PG-DAC August 2024

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Submitted By:
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1. Introduction

1.1 Document Purpose

This document outlines the business requirements and scope for developing the Insurance Hub web application. The goal is to define the features, functionalities, and constraints necessary for creating a secure, efficient, and user-friendly platform that facilitates the management of health and life insurance policies. The scope of this document is to define the functional and non-functional requirements, business rules, and other constraints necessary for the successful implementation of the system. This includes key functionalities such as policy browsing, policy comparison, purchasing insurance policies, claim submission, claim tracking, user account management, and administrative oversight.

1.2 Project Background

With the increasing reliance on digital platforms for financial and insurance-related services, there is a growing demand for a comprehensive and user-friendly system that simplifies policy management, claim processing, and customer interactions. Many users face challenges in browsing, comparing, and purchasing insurance policies, as well as in efficiently tracking claims and managing transactions.

The Insurance Hub project aims to address these challenges by providing a centralized, secure, and automated solution for policyholders, insurers, and administrators. The platform ensures seamless policy management, enhances transparency in claim processing, and streamlines administrative operations, ultimately improving the overall customer experience and operational efficiency in the insurance sector.

1.3 Aim & Objective

The aim is to develop a user-friendly, web-based Insurance Hub application that enables users to efficiently browse, compare, purchase, and manage insurance policies, while providing insurers and administrators with streamlined tools for policy management, claim processing, and transaction monitoring.

- Develop a **user-friendly web-based application** for insurance policy management.
- Provide a **secure and seamless** platform for **policy browsing, comparison, and purchase**.
- Enable **policyholders to track claims and manage purchased policies** efficiently.
- Allow **insurers to manage policies, monitor claims, and oversee financial transactions**.
- Facilitate **claim submission and processing** with automated status updates.
- Implement **role-based access** for policyholders, insurers, and administrators.
- Ensure **secure payment processing** for transactions.

1.4 Customers and Stakeholders

- **Customers:**
  - Individuals seeking health and life insurance policies.
  - Customers looking to compare, purchase, and manage insurance policies easily.
  - Policyholders who need a secure and efficient claims submission and tracking system.

- **Stakeholders:**
  - Technology companies specializing in health and fitness solutions.
  - Insurance Companies offering health and life insurance policies.
  - Financial Institutions managing premium transactions and claim settlements.
  - Regulatory Authorities ensuring compliance with insurance policies and customer protection laws.
  - Technology Companies providing secure and scalable web solutions for insurance management.

2. Business Requirements Overview

- Target platform: Web Application
- User interface: User-friendly, intuitive, and visually appealing interface for seamless navigation.
- Monetization strategy: Freemium model with optional premium features or subscription plans for advanced services.

3. Functional Requirements Overview

1. Policy Holder Module
2. Insurer Module
3. Admin Module

3.1 Policy Holder Module:

- Browse Policies: View available health and life insurance policies with details on coverage, premium, and terms.
- Compare Policies: Compare multiple policies based on coverage, premium amount, and benefits.
- Purchase Policies: Select and buy insurance policies through an integrated payment system.
- Submit Claims: File claims for purchased policies by providing necessary details.
- Track Claim Status: Monitor claims with status updates like Submitted, Approved, or Rejected.
- View Purchased Policies: Access policy details such as policy name, coverage, premium due dates, and validity.

3.2 Insurer Module:

- Policies: Add insurance policies from the system.

- Approve or Reject Claims: Review claim requests and approve or reject based on policy terms.

- Monitor Claims: Track claims and provide status updates.

- Manage Policy Holders: Oversee customer accounts, policy holder details.

- View Transactions: View transactions done by policy holders belonging to that particular insurer.

3.3 Admin Module:

- Oversee Policy Holders and Insurers: Manage accounts, update details, and regulate policyholder and insurer activities.

- Add New Insurers: Register and provide access to new insurers in the system.

- Analyse Revenue and Profits: Generate and display financial reports based on policy sales and claim settlements.

- View Transactions: Monitor all transactions, including policy purchases, claim disbursements, and refunds.

4. Non-Functional Requirement

- Performance: The **Insurance Hub** application should be responsive, efficient, and capable of handling large volumes of data related to insurance policies, claims, and transactions without lag or crashes.

- Scalability: The application should be scalable to accommodate **future growth** in the number of users, policies, and claim requests, ensuring smooth operation as the platform expands.

- Availability: The application should be available **24/7**, ensuring that users can browse policies, submit claims, and track transactions at any time without interruptions.

- User Roles and Access Control: The system should define clear access controls for **Policy Holders, Insurers, and Admins**, restricting access based on user roles to maintain data integrity and security.

- Compliance: The system should comply with **insurance industry regulations** and **data privacy laws**, ensuring that user information is handled securely and in accordance with legal requirements.

5. Use Case Diagram

1. Admin:

Admin:

1. In Admin use diagram Admin is the Actor
2. Admin can handle the following use cases:
   a. Login
   b. Add Insurer
   c. View Transaction
   d. View Customer
   e. Analyze Revenue

2. Policy Holder:
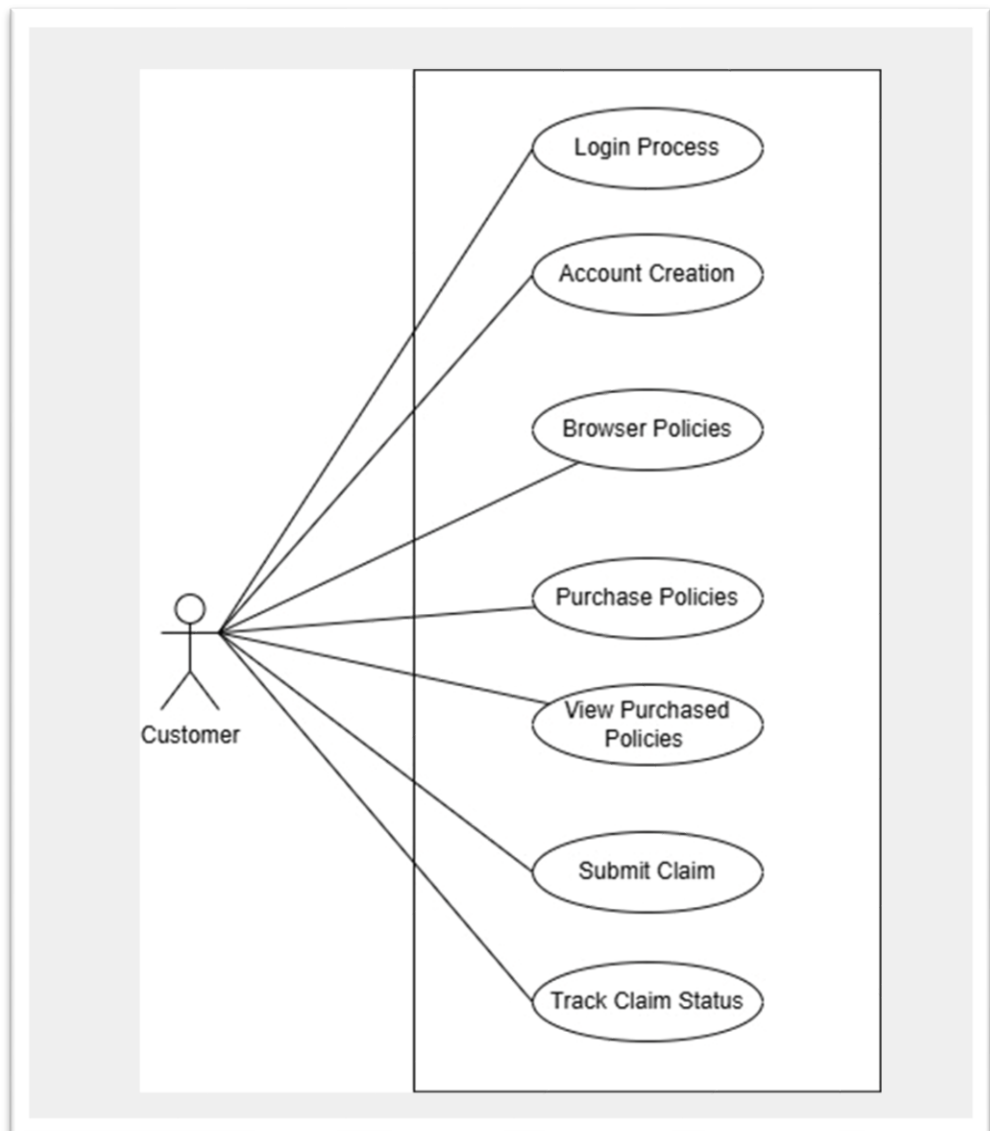
Customer:
1. In Customer use case diagram Customer is the Actor.
2. Customer can handle following use cases:
   a. Register
   b. Login
   c. Browse Policies
   d. Purchase Policies
   e. View Purchased Policies
   f. Submit Claim
   g. Track Claim Status

3. Insurer:
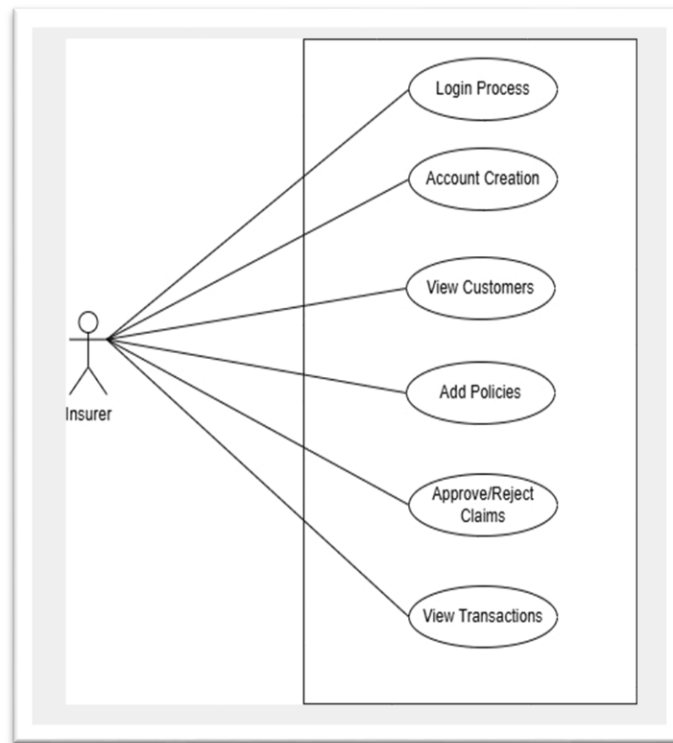
Insurer:
1. In Insurer use case diagram Insurer is the Actor
2. Insurer can handle following use cases:
   a. Login
   b. Account Creation
   c. Add Policies
   d. Approve / Reject Claims
   e. View Transactions

6. Database Design

I. Role Table

Field	Type	Null	Key	Default	Extra
RoleDescription	VARCHAR(255)	YES		NULL	
RoleName	VARCHAR(255)	NO	PRI	NULL	

II. User Table

Field	Type	Null	Key	Default	Extra
UserId	INT	NO	PRI	NULL	AUTO_INCREMENT
Email	VARCHAR(255)	NO	UNI	NULL	
Password	VARCHAR(255)	NO		NULL	
RoleName	VARCHAR(255)	NO	MUL	NULL	
UserName	VARCHAR(255)	NO		NULL	

III. Insurer Table

Field	Type	Null	Key	Default	Extra
insurerId	INT	NO	PRI	NULL	AUTO_INCREMENT
insurerName	VARCHAR(255)	NO		NULL	
licenseNumber	VARCHAR(255)	YES	UNI	NULL	
UserId	INT	NO	UNI	NULL	
address	VARCHAR(255)	NO		NULL	

IV. PolicyHolder Table

Field	Type	Null	Key	Default	Extra
UserId	INT	NO	UNI	NULL	
policyHolderId	INT	NO	PRI	NULL	AUTO_INCREMENT
aadharNumber	VARCHAR(255)	NO	UNI	NULL	
contactNumber	VARCHAR(255)	NO		NULL	
dateOfBirth	VARCHAR(255)	NO		NULL	
panNumber	VARCHAR(255)	NO	UNI	NULL	
policyHolderName	VARCHAR(255)	NO		NULL	
Address	VARCHAR(255)	NO		NULL	

V. Insuredmember Table

Field	Type	Null	Key	Default	Extra
id	INT	NO	PRI	NULL	AUTO_INCREMENT
policyholderId	INT	NO	MUL	NULL	
dateOfBirth	VARCHAR(255)	NO		NULL	
name	VARCHAR(255)	NO		NULL	
relationship	VARCHAR(255)	NO		NULL	

VI. Nominee Table

Field	Type	Null	Key	Default	Extra
id	INT	NO	PRI	NULL	AUTO_INCREMENT
policyholderId	INT	NO	MUL	NULL	
dateOfBirth	VARCHAR(255)	NO		NULL	
name	VARCHAR(255)	NO		NULL	
relationship	VARCHAR(255)	NO		NULL	

VII. Policy Table

Field	Type	Null	Key	Default	Extra
policyId	INT	NO	PRI	NULL	AUTO_INCREMENT
claimProcess	VARCHAR(255)	YES		NULL	
coPayment	DECIMAL(38,2)	YES		NULL	
coverageAmount	DECIMAL(38,2)	NO		NULL	
coverageType	VARCHAR(255)	NO		NULL	
createdDate	DATETIME(6)	NO		NULL	
modifiedDate	DATETIME(6)	NO		NULL	
policyNumber	VARCHAR(255)	NO	UNI	NULL	
policyTerms	VARCHAR(255)	YES		NULL	
policyType	VARCHAR(255)	YES		NULL	
premiumAmount	DECIMAL(38,2)	NO		NULL	
renewalTerms	VARCHAR(255)	YES		NULL	
status	VARCHAR(255)	NO		NULL	
waitingPeriod	INT	NO		NULL	
insurer_id	INT	YES	MUL	NULL	
benefits	TEXT	YES		NULL	
exclusions	TEXT	YES		NULL	
policyName	VARCHAR(255)	NO		NULL	

VIII. Transaction Table

Field	Type	Null	Key	Default	Extra
transactionId	VARCHAR(255)	NO	PRI	NULL	
amount	DECIMAL(38,2)	NO		NULL	
createAt	DATETIME(6)	NO		NULL	
transactionDate	DATETIME(6)	NO		NULL	
policyId	INT	YES	MUL	NULL	
policyHolderId	INT	YES	MUL	NULL	

IX. Irdai Table

Field	Type	Null	Key	Default	Extra
irDAIID	INT	NO	PRI	NULL	AUTO_INCREMENT
license_number	VARCHAR(255)	NO	UNI	NULL	

X. Claim Table

Field	Type	Null	Key	Default	Extra
claimId	BIGINT	NO	PRI	NULL	AUTO_INCREMENT
approvedDate	DATETIME(6)	YES		NULL	
claimAmount	DOUBLE	NO		NULL	
claimStatus	VARCHAR(255)	NO		NULL	
filedDate	DATETIME(6)	YES		NULL	
incidentDate	DATE	YES		NULL	
incidentDescription	VARCHAR(255)	YES		NULL	
policy_id	INT	NO	MUL	NULL	
transaction_id	VARCHAR(255)	NO	UNI	NULL	
claimantName	VARCHAR(255)	NO		NULL	

8.Snapshots:

8.1 Home Page:

Following snapshot shows the **Home Page** for Insurance Hub application before Login. Guest user can navigate to Registration and Login page from Home Page.

8.2 Registration Page:

Customer can register himself by navigating to registration page.

8.3 Admin Home Page:

Admin Dashboard after login.

Only Admin can register/Add Insurer for authenticity.

Admin can view policies

Admin can display analytics

Admin can view Insurers

Admin can view transactions

8.4 Insurer Page

Insurer Login

Insurer Dashboard

Insurer can approve / reject the pending claims

8.5 Insurer can view policy holders

InsuranceHub

- Dashboard
- Policies
- Pending Claims
- Approved Claims
- Customers
- Logout

Hub

👤 Vipul123

Customers

➕ Add New Policy   VipulInsurance   License: ABC123

Total Customers **1** 👥	Total Policies **1** 📄	Approved Claims **1** ✅	Pending Claims **0** ⚠️

Total Customers
Overview of all customers

Transaction ID	Policy Holder Name	Policy Name	Amount	Transaction Date
ihb99650b789a	Ajinkya Patil	VIPHealthInsurance	₹16500	2/12/2025

8.6   Insurer approved the claim

InsuranceHub

- Dashboard
- Policies
- Pending Claims
- Approved Claims
- Customers
- Logout

Hub

👤 Vipul123

Insurance Policies

➕ Add New Policy   VipulInsurance   License: ABC123

Total Customers **0** 👥	Total Policies **1** 📄	Approved Claims **0** ✅	Pending Claims **0** ⚠️

Active Policies
Overview of all insurance policies

Policy Number	Policy Name	Policy Terms	Premium Amount	Coverage Amount	Coverage Type	Status
POL12345	VIPHealthInsurance	Policy is subject to terms and conditions.	$5000	$15000	Individual	Active

8.6 Policy Holder

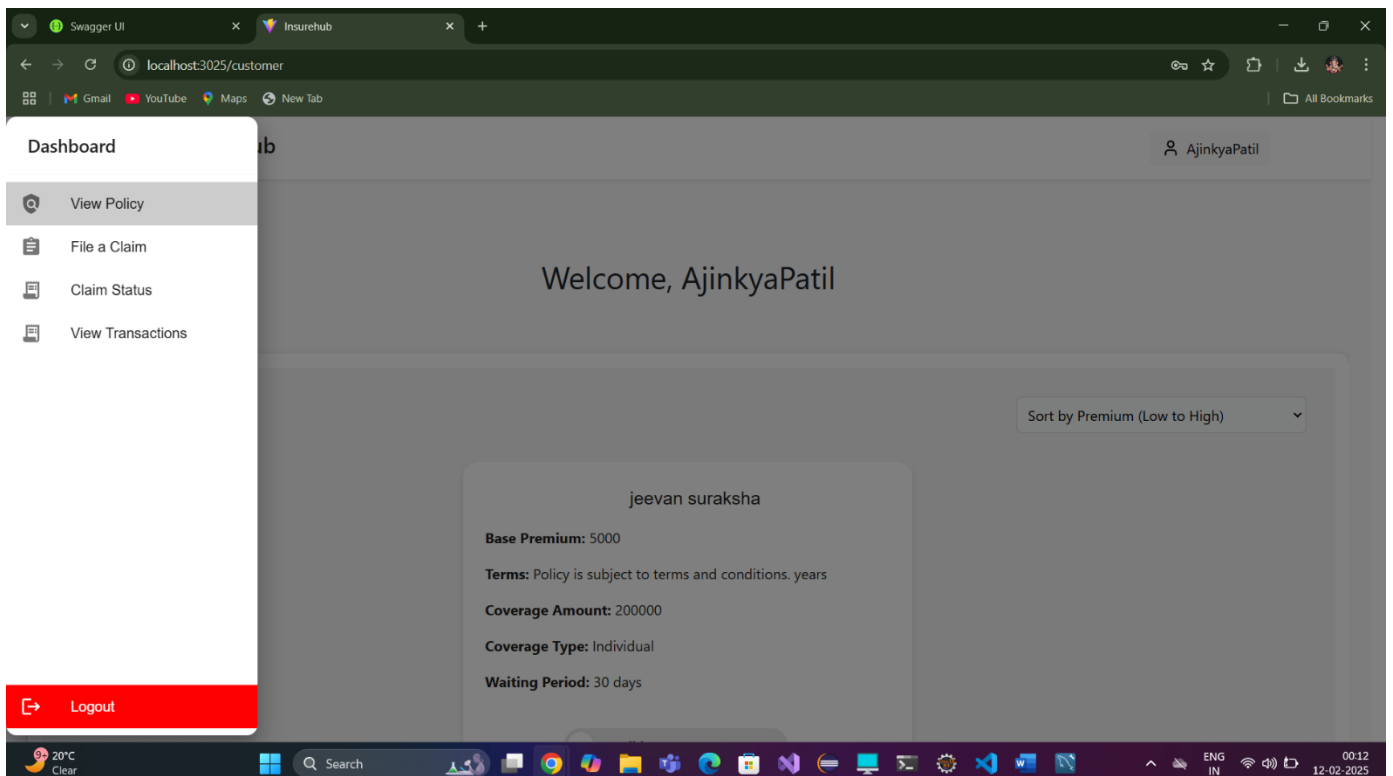Policy Holder Registration page   15

Policy Holder can browse policies
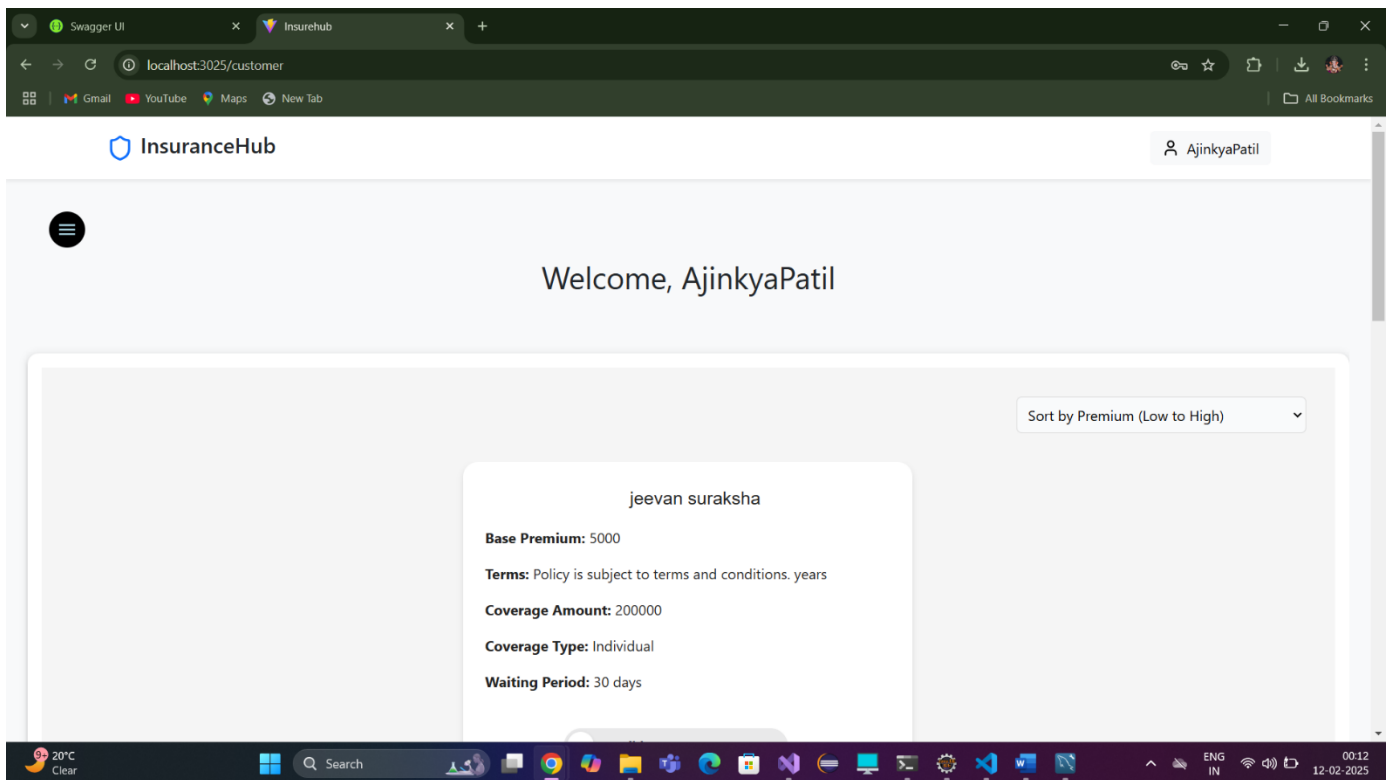
Insurance Hub can search more profitable fund
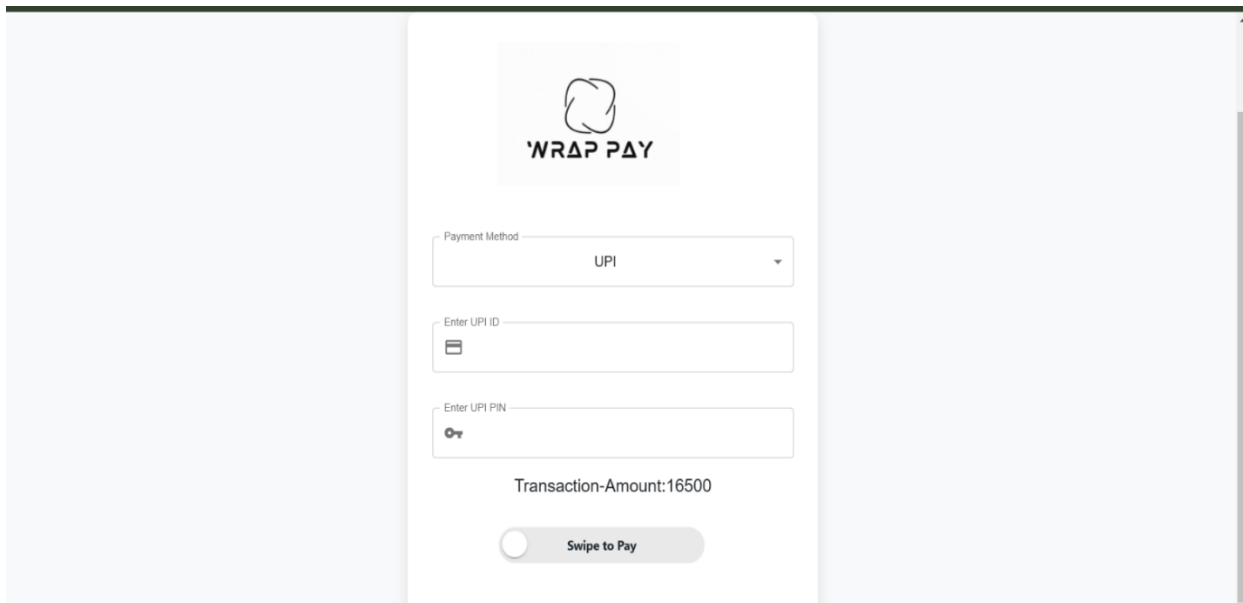
Sort the policies based upon the premium (low to high)

Policy holder can buy policy

Policy Holder can make payment by different type

After payment successful House Holder
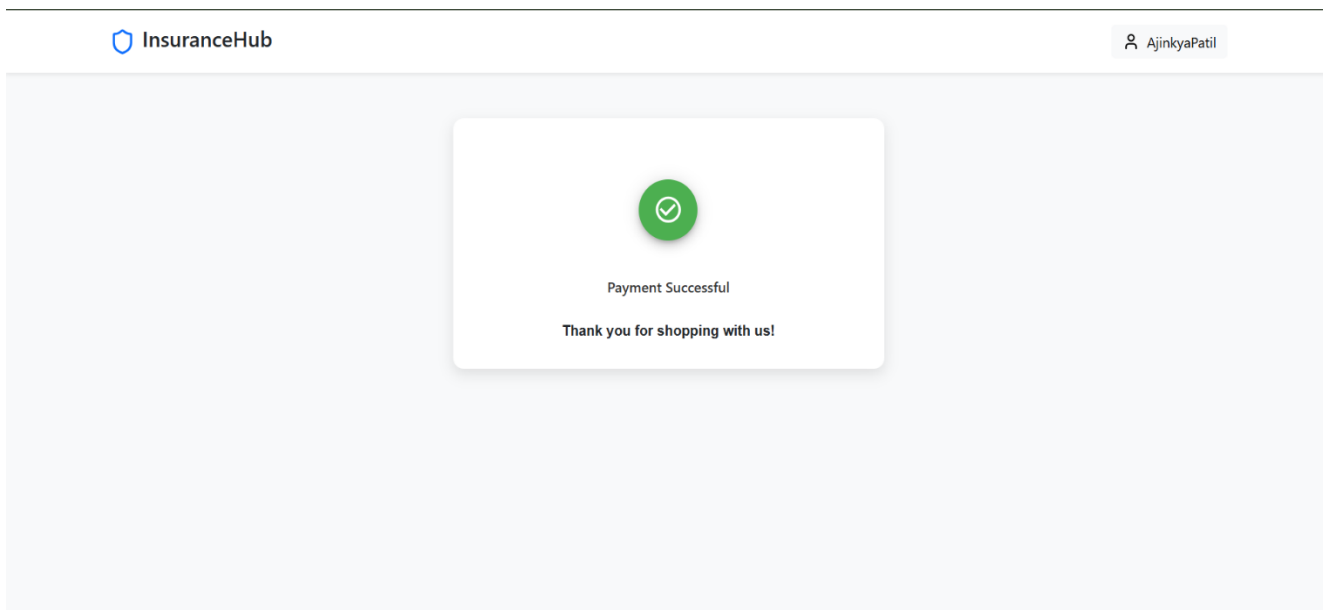
Policy Holder can get to see the invoice after successful payment
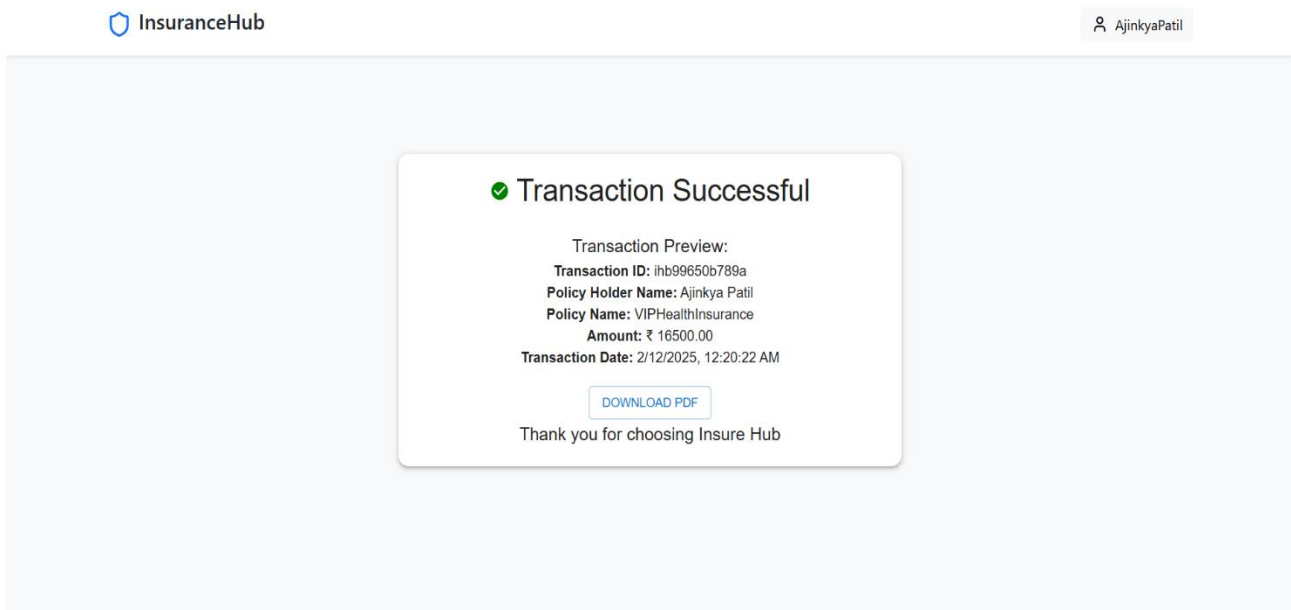
Policy Holder can Download the generated Invoice
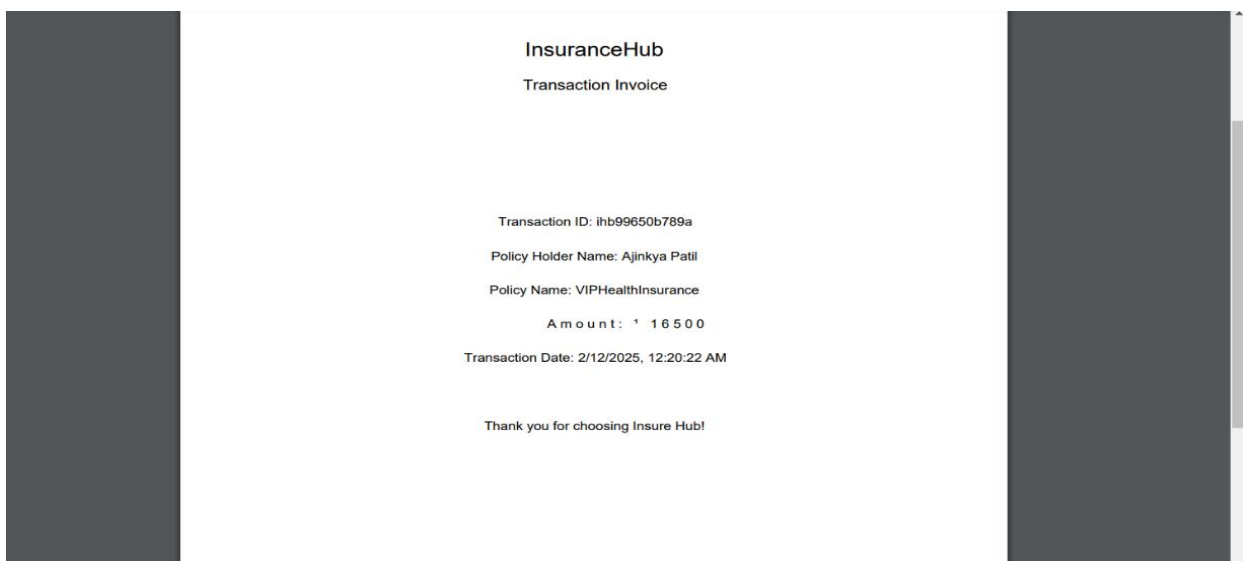
Policy Holder can view purchased policies

InsuranceHub   ⊙ AjinkyaPatil

☰

Welcome, AjinkyaPatil

Transaction ID	Policy Holder Name	Policy Name	Amount	Transaction Date
ihb99650b789a	Ajinkya Patil	VIPHealthInsurance	₹16500.00	2/12/2025, 12:20:22 AM

Policy Holder can file a claim

⊙

Claim Filing Form

Claim Amount *
🔒

Incident Description *
🔒

Incident Date *
dd-mm-yyyy

☐ I agree to the Terms and Conditions of filing a claim

Policy Holder can check the status of the claim

🛡 InsuranceHub   👤 AjinkyaPatil

≡

Welcome, AjinkyaPatil

Claim ID	Claimant Name	Policy ID	Transaction ID	Claim Status	Claim Amount	Incident Date	Incident Description	Filed Date	Approved Date
2	Ajinkya Patil	5	ihb99650b789a	🟠 Pending	5000	2025-02-12	Car accident	2025-02-11T18:53:04.459+00:00	1970-01-01T00:00:00.000+00:00

Policy Holder can check status of policies after updated by updated by the Insurer

🛡 InsuranceHub   👤 AjinkyaPatil

≡

Welcome, AjinkyaPatil

Claim ID	Claimant Name	Policy ID	Transaction ID	Claim Status	Claim Amount	Incident Date	Incident Description	Filed Date	Approved Date
2	Ajinkya Patil	5	ihb99650b789a	✅ Approved	5000	2025-02-12	Car accident	2025-02-11T18:53:04.459+00:00	2025-02-11T18:55:03.015+00:00

9. ER Diagram
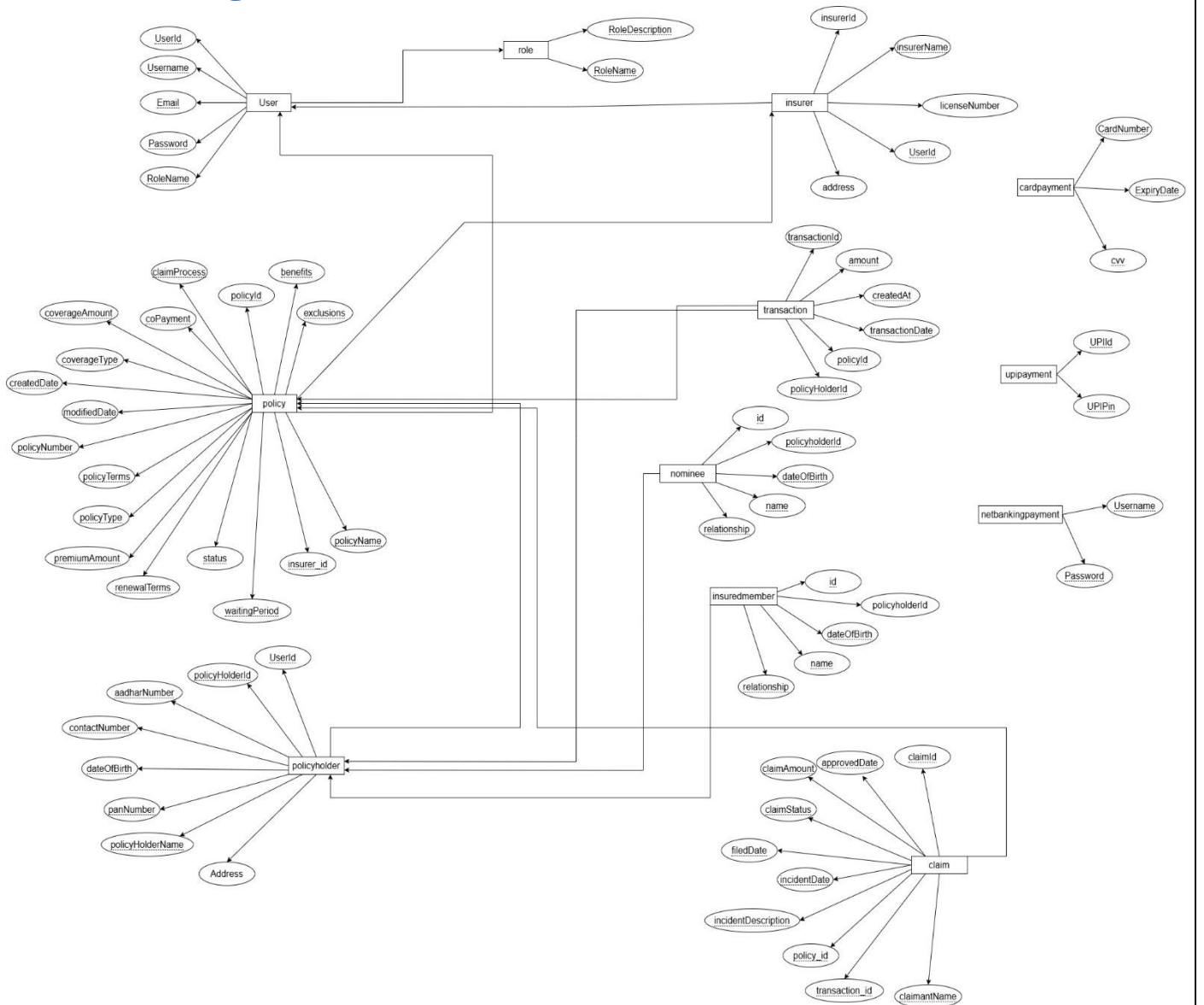
Conclusion

The Insurance Hub application aims to provide a comprehensive and efficient platform for managing health and life insurance policies. By offering functionalities such as policy browsing, comparison, purchasing, claim submission, and claim tracking, the system ensures a seamless experience for customers, insurers, and administrators. With a user-friendly interface, secure transactions and robust administrative controls, the platform enhances accessibility and transparency in the insurance process. By continuously evolving based on user feedback and industry requirements, Insurance Hub strives to be a reliable and innovative solution for modern insurance management.