



CODECELL-CMPN,VESIT

SYRUS HACKATHON 2025

Category Code: C4

Problem Statement Title: InsurAI - Smarter Policies, Faster Claims, and Fraud Protection

Team Name: .env

Institute Name: Vivekanand Education Society's Institute of Technology



Idea / Approach details (& implemented features)

Approach:

- **Data-Driven Personalization**
Clustering (age/location/occupation) → Tailored policy recommendations.
- **Real-Time Parametric Triggers**
Integrate OpenWeather API → Adjust premiums based on cyclone/flood risks.
- **AI-Powered Claims & Fraud Detection**
NLP-based document analysis → Flag non-compliant/inflated claims.
- **Chatbot for Strategic Insights**
RAG-based Q&A on policy performance, risk profiling, and market trends.

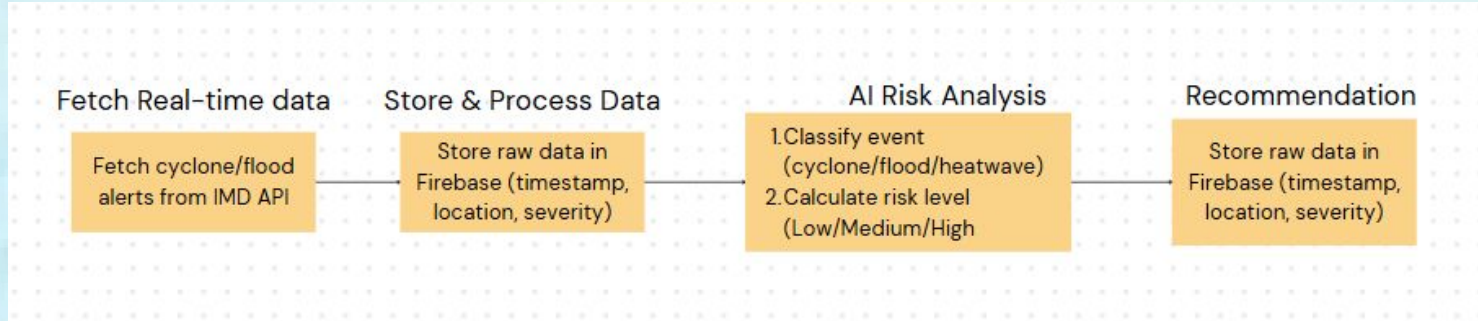


Innovation (Showstopper)

Dynamic Risk Adjustment Powered by AI & Live Data

- Eliminates predefined parameters to trigger payouts.
- Prevents revenue loss from outdated static pricing.

Workflow:

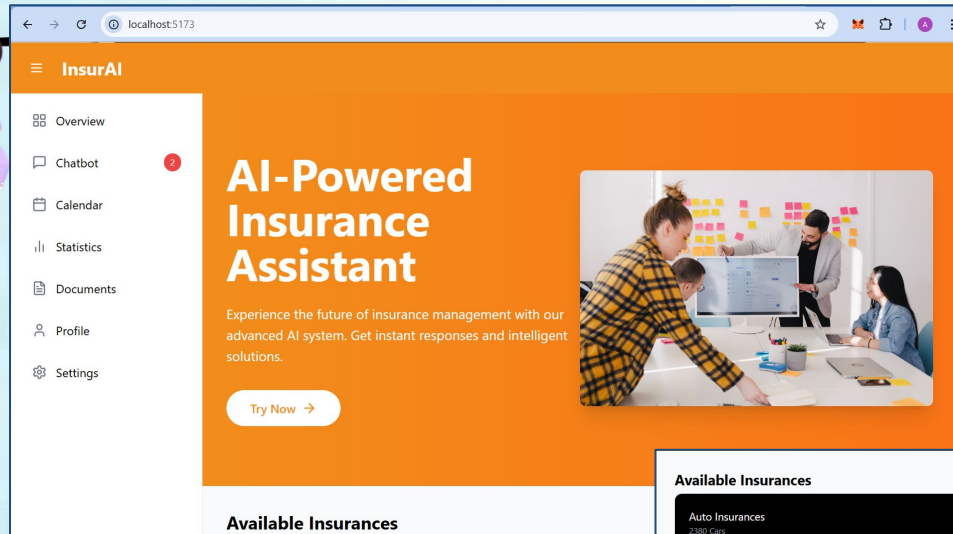


Tech Stack

- **Frontend** : React JS
- **Backend** : Python, Flask / FastAPI, Uptiq
- **APIs** : OpenWeather API, Gemini,
- **Database** : Firebase, MongoDB



Implementation/Prototype/Use Case Diagram (screenshots)



The screenshot shows the InsurAI Home Page. The browser address bar displays 'localhost:5173'. The page has a white sidebar with a menu containing: Overview, Chatbot (with a red notification bubble), Calendar, Statistics, Documents, Profile, and Settings. The main content area has an orange header with the text 'AI-Powered Insurance Assistant' and a sub-header 'Experience the future of insurance management with our advanced AI system. Get instant responses and intelligent solutions.' Below this is a 'Try Now →' button. To the right is an image of three people in a meeting. At the bottom, there is a section titled 'Available Insurances'.

HOME PAGE

Live Risk Monitoring

- ⚠ Hurricane approaching Florida – Risk adjustments applied!
- ⚠ Health activity increase detected – Risk adjustments applied!

Parametric Pricing Adjustments

Policy Type	Affected Customers	Trigger Event	Previous Premium	New Premium	Status
Auto	2500	Hurricane approaching Florida	\$500	\$550	Adjust
Health	4689	Health activity increase detected	\$400	\$380	Adjust

Available Insurances

Auto Insurances

2380 Cars

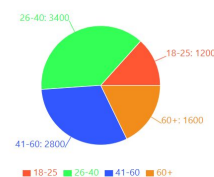
\$45,789 ~\$45,789 USD

Health Insurances

4689 People

\$145,789 ~\$39,789 USD

Claims Distribution by Age Group



Claim Approvals Per Month



Implementation/Prototype/Use Case Diagram (screenshots)

DOCUMENTS PAGE

InsurAI

Overview

Chatbot

Calendar

Statistics

Documents

Profile

Settings

Documents

Upload New

File Name	Document Type	Date	Size	Status	Actions
Auto Insurance Policy	PDF	Mar 28, 2025	2.4 MB	Approved	<div></div> <div></div>
Health Insurance Claims	PDF	Mar 27, 2025	1.8 MB	Pending	<div></div> <div></div>
Property Insurance Terms	DOC	Mar 26, 2025	956 KB	Approved	<div></div> <div></div>
Insurance Certificate	PDF	Mar 25, 2025	1.2 MB	Pending	<div></div> <div></div>
Policy Renewal Notice	PDF	Mar 24, 2025	845 KB	Approved	<div></div> <div></div>
Claims Documentation	ZIP	Mar 23, 2025	4.7 MB	Pending	<div></div> <div></div>

InsurAI

Overview

Chatbot

Calendar


Statistics

Documents

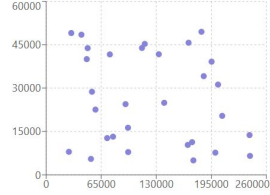
Profile

Settings

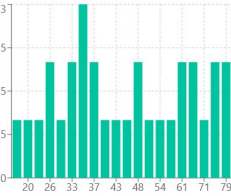
Plan Distribution



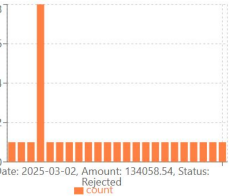
Premium vs. Deductible



Age Distribution

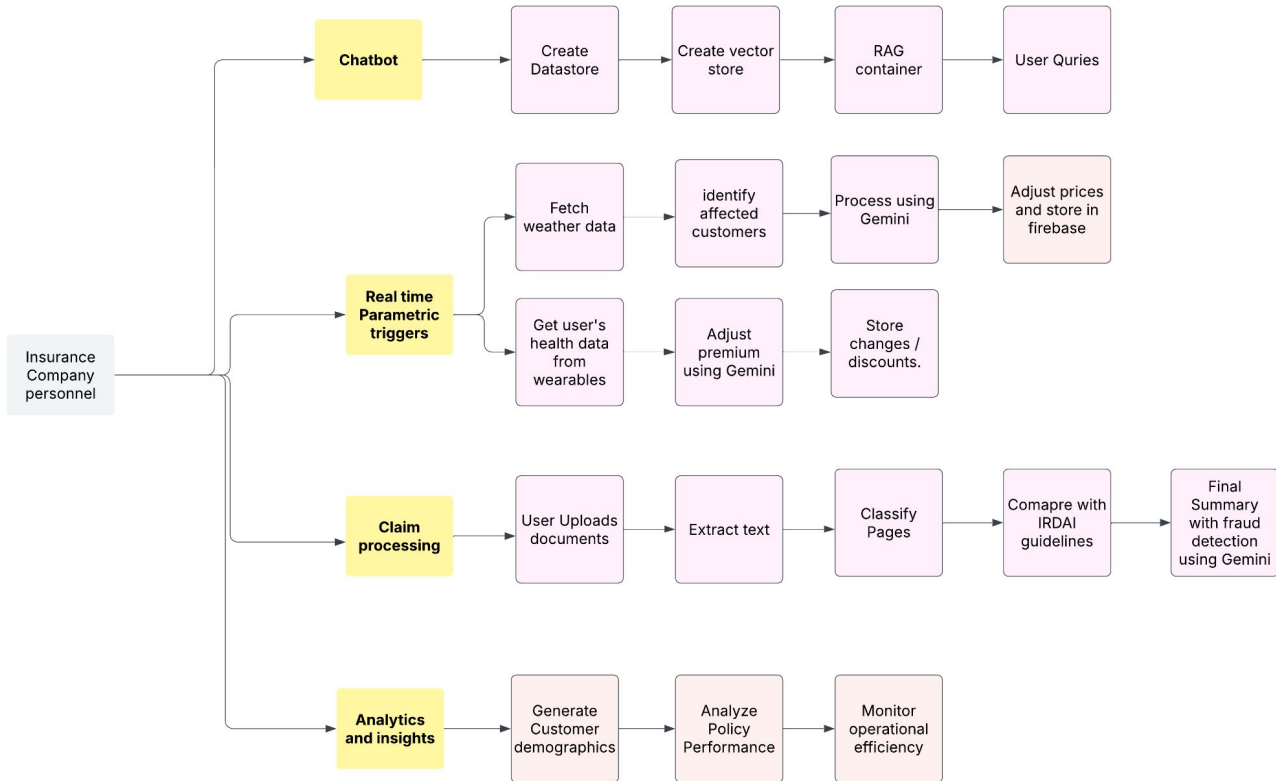


Claims Status Overview



STATISTICS PAGE


Implementation/Prototype/Use Case Diagram (screenshots)



In case of Uptiq category - Your Uptiq Agent (explain in detail)

RAG


 RAG Containers  Vector Stores  Data Stores

 Not sure what is a RAG container? [Learn more](#) 

+ Create RAG Container



Search by Name

Name	Vector Store	No. of Candidates	Generation LLM	State	Created At	Actions
Insurance chatbot RAG	Insurance data store	5	GPT 4o	Available	Mar 28, 2025, 10:25 AM	 

create a data stores

upload the data from
your data source

create the vector store

Select the embedding
model, data store

Create the RAG container

Select the LLM model and
candidate token



Future Objectives

Blockchain for Claims Transparency

- Leverage blockchain to create immutable records of claims and policy adjustments.
- Enable smart contracts for instant policy validation and fraud prevention.

AI-Driven Parametric Relief Funds (Automated Payouts in Disasters)

- Use AI + IoT + Smart Contracts to create real-time insurance relief funds.
- Automatically trigger payouts before disasters impact customers.

