ResiliAI Engage: AI-Driven Disaster Response and Community Resilience Platform

Challenge Sponsor: ServiceNow University HackNow - India 2025

Project Status: Final Submission (Top 50 Ranking)

1. Project Overview

ResiliAl Engage is a comprehensive, scalable platform built on the ServiceNow platform that transforms reactive disaster response into a proactive and coordinated effort. We solve the problem of fragmented communication during crises by unifying citizens, volunteers, and authorities on a single, intelligent system.

Key Innovations

- 1. **AI-Driven Smart Assignment:** Custom Business Rules and Flow Designer logic automatically find the **nearest and most-skilled** volunteer using location data (Haversine formula).
- 2. **AI-Powered SITREP:** Instantly converts raw incident reports into actionable **Situational Reports** and task suggestions, validated by a custom **Credibility Score** to prevent pranks.
- 3. **Gamification Engine:** Rewards active community participation with points and badges, displayed on a public-facing Leaderboard to drive engagement.
- 4. **Full Lifecycle Management:** Handles the disaster process from **Prediction** and **Preparedness** (Knowledge Base) to **Response** (Tasking) and **Recovery** (AAR).

2. Accessing the Video Demonstration

The video below provides a full, end-to-end demonstration of the application's functionality, including the front-end user experience, back-end automation, and mobile features.

% Video Demonstration Link

[Click Here to Watch the Full Demo]

link click on the link text or paste the link below to access the link

https://drive.google.com/file/d/1LasS g804YU-f7Gonp8KYIb-zvfML8L4/view?usp=drivesdk

3. Core Features & Technical Stack

Component	Feature Demonstrated	Technology Used
Frontend Portal	Citizen/Volunteer registration, Preparedness Hub, and the Public Leaderboard.	ServiceNow Service Portal

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Incident Reporting	Conversational reporting via Virtual Agent (NLU) or Service Catalog forms.	Virtual Agent Designer, Service Catalog
Intelligent Automation	Assigns tasks, calculates the Credibility Score, and sends notifications.	Flow Designer, Business Rules (JavaScript)
Mobile App	Task notification, acceptance, and status updates for field volunteers.	Mobile App Builder
Command Center	Real-time dashboards showing geo-tagged incidents, volunteer distribution, and performance metrics.	Platform Analytics / Dashboards

4. Future Enhancements (Roadmap)

- 1. **Predictive Analytics Integration:** Deploy advanced AI/ML models to analyze IoT sensor data and predict the likelihood of future disasters.
- 2. **Post-Disaster Recovery Orchestration:** Extend the platform to manage long-term recovery processes like damage assessment and rebuilding requests.
- 3. **Volunteer Training Module:** Introduce required training and certification pathways directly within the app for proper volunteer safety and protocol adherence.