Insurance Product Deployment & Claim Risk Analysis

🚀 Objective:

Developed a **data-driven solution** to analyze **insurance policy deployment**, assess claim risk, and optimize product rollout strategies for auto insurance.

📊 Project Highlights:

✓ **Exploratory Data Analysis (EDA):** Investigated key factors influencing claims, such as **vehicle age, fuel type, and safety features**.

✓ **Predictive Modeling:** Built a **Random Forest model** to predict **claim likelihood**, helping optimize insurance product deployment decisions.

✓ **Dashboard Development:** Designed an **interactive Shiny dashboard** to track **policy performance, claims, and risk factors** in real time.

✓ **Process Automation:** Implemented a streamlined **data pipeline** to automate claim risk evaluation and policy monitoring.

🛠️ Tech Stack:

✅ R (tidyverse, ggplot2, caret, randomForest, shiny)

✅ Data Visualization (ggplot2, Shiny)

✅ Machine Learning (Random Forest for claim prediction)

🎯 Impact:

🔹 Improved **insurance product deployment efficiency** by identifying high-risk policies before rollout.

🔹 Enhanced **business decision-making** with data-driven insights into policy performance.

🔹 Automated **risk analysis & reporting**, reducing manual efforts in policy assessment.