

The slide features a light gray background with several hexagonal shapes: a light blue hexagon and a dark green hexagon in the upper left; a large green hexagon in the upper center; and a small green hexagon in the lower center. On the right side, there is a large, abstract graphic composed of overlapping translucent blue and teal geometric shapes. The text 'Sandhiya.M.D' is displayed in a large, black, sans-serif font, and 'Final Project' is displayed below it in a smaller, green, sans-serif font.

# Sandhiya.M.D

## Final Project

# PROJECT TITLE

*Predicting Home Insurance Claims with Decision Tree*

# AGENDA

Introduction: This project focuses on using decision trees to predict insurance claims. Decision trees are a popular machine learning algorithm known for their interpretability and effectiveness in classification tasks. By analyzing historical data, we aim to develop a model that can accurately predict whether an insurance claim will be filed based on various factors.

Methodology and Results: We will discuss the process of data collection, preprocessing, and model development. The decision tree model will be trained and evaluated using appropriate metrics such as accuracy, precision, recall, and F1-score. Insights gained from the model evaluation will be presented, along with any challenges encountered during the project



# PROJECT OVERVIEW

In this project overview, we embark on a journey to harness the predictive capabilities of decision tree algorithms in the domain of insurance claim prediction. By analyzing historical data, our objective is to develop a robust model capable of determining the likelihood of insurance claims being filed based on various parameters. Through meticulous data preprocessing and exploratory analysis, we aim to unearth insights that inform the construction and refinement of our decision tree model. Ultimately, our endeavor seeks to equip insurance companies with predictive tools that enhance risk assessment, streamline operations, and ultimately drive better decision-making in the management of insurance claims.



# PROBLEM STATEMENT

The problem statement revolves around the imperative need for insurance companies to precisely predict the likelihood of policyholders filing insurance claims. Despite the abundance of data, conventional methods struggle with the intricacies of insurance data, posing challenges in accurate predictions. Thus, this project endeavors to overcome these limitations by employing decision tree algorithms to develop a robust predictive model. By leveraging historical data effectively, this model aims to optimize claim processing workflows, thereby enhancing risk management strategies and mitigating financial risks within the insurance industry.



# WHO ARE THE END USERS?

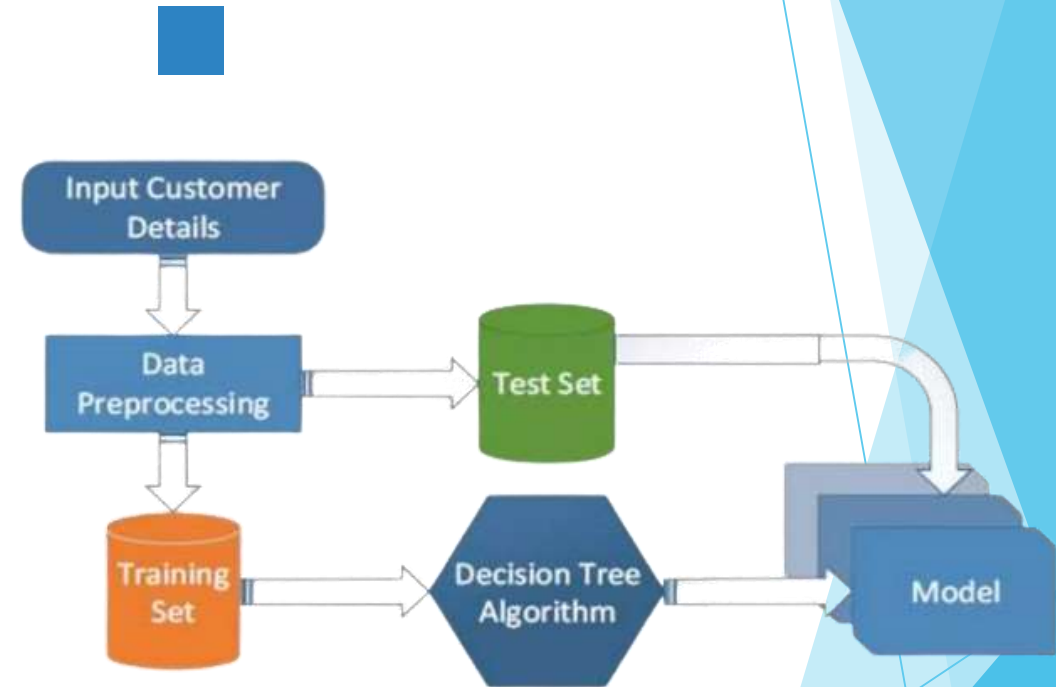


The primary end users of the predictive model are insurance companies and their departments handling claims management and risk assessment. This includes claims adjusters, underwriters, actuaries, and risk analysts who rely on accurate predictions for decision-making. Additionally, insurance brokers, agents, and policyholders can benefit from the model's insights. Brokers and agents can provide tailored advice, while policyholders can make informed decisions about their coverage options. Regulatory bodies and policymakers in the insurance industry may also indirectly benefit from the model's insights for assessing market trends and enforcing regulatory compliance.



# YOUR SOLUTION AND ITS VALUE PROPOSITION

Our predictive model, driven by decision tree algorithms, revolutionizes insurance claim prediction with its precision and efficiency. It enables insurers to proactively manage risks, anticipate claim trends, and allocate resources effectively, thereby minimizing financial losses. Additionally, our solution enhances operational efficiency by automating decision-making processes, allowing insurance professionals to focus on strategic initiatives and providing a competitive edge in the market. Moreover, the model's adaptability and scalability make it suitable for diverse insurance sectors, ranging from health and property to automotive and life insurance, ensuring broad applicability and long-term viability in the industry.





# THE WOW IN YOUR SOLUTION



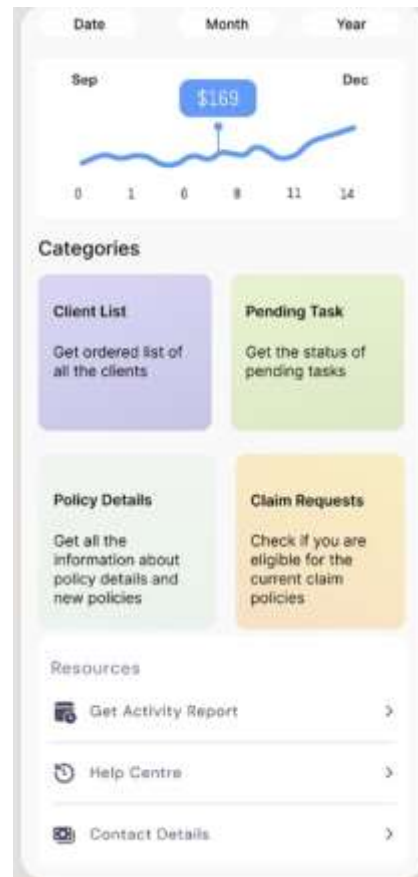
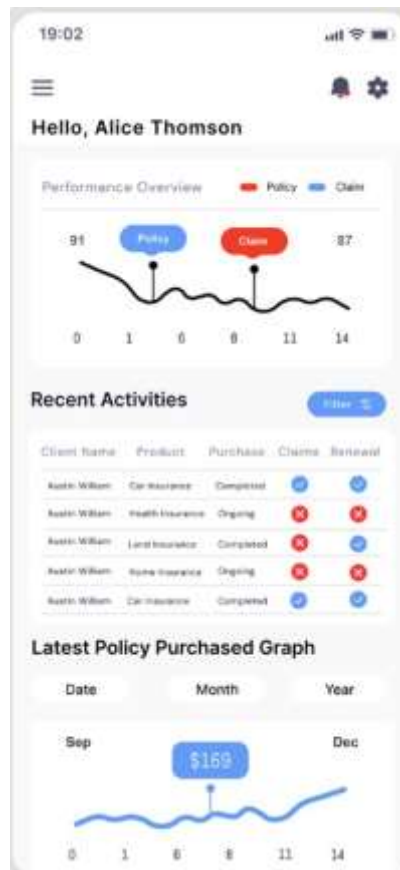
Our solution stands out with its advanced decision tree algorithms, revolutionizing insurance claim prediction for unparalleled accuracy and efficiency. By analyzing vast historical data, it uncovers hidden patterns, providing real-time insights that empower informed decision-making. Moreover, our solution's transformative capability enhances operational efficiency and scalability across diverse insurance sectors. It empowers professionals to make informed decisions, driving strategic initiatives and ensuring superior performance in a rapidly evolving industry landscape.



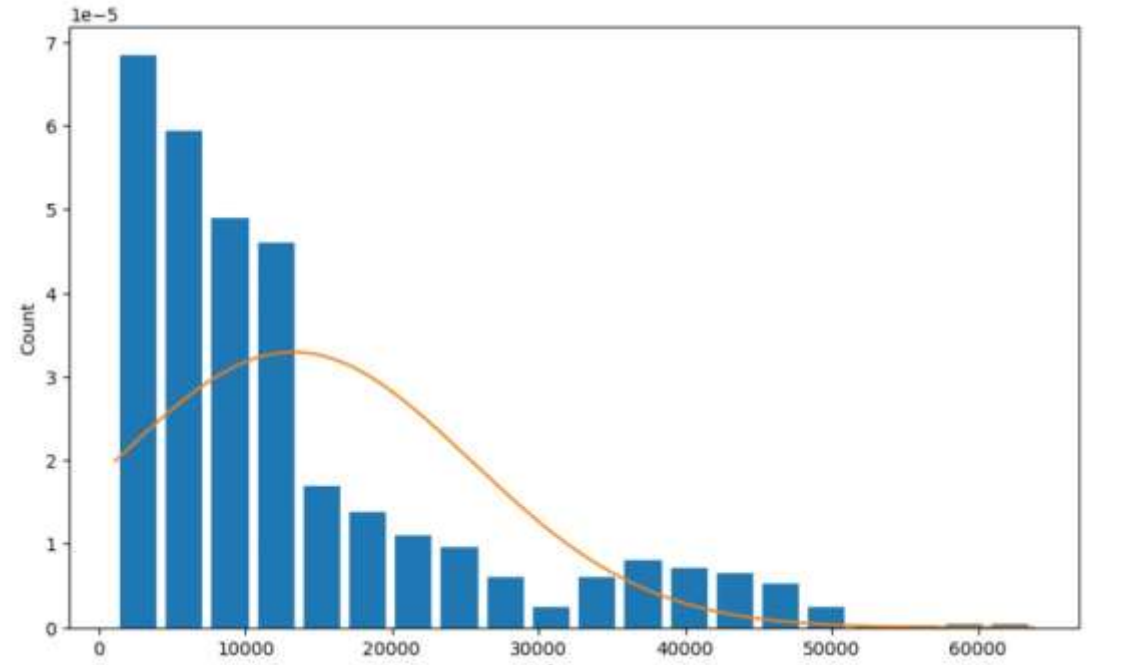
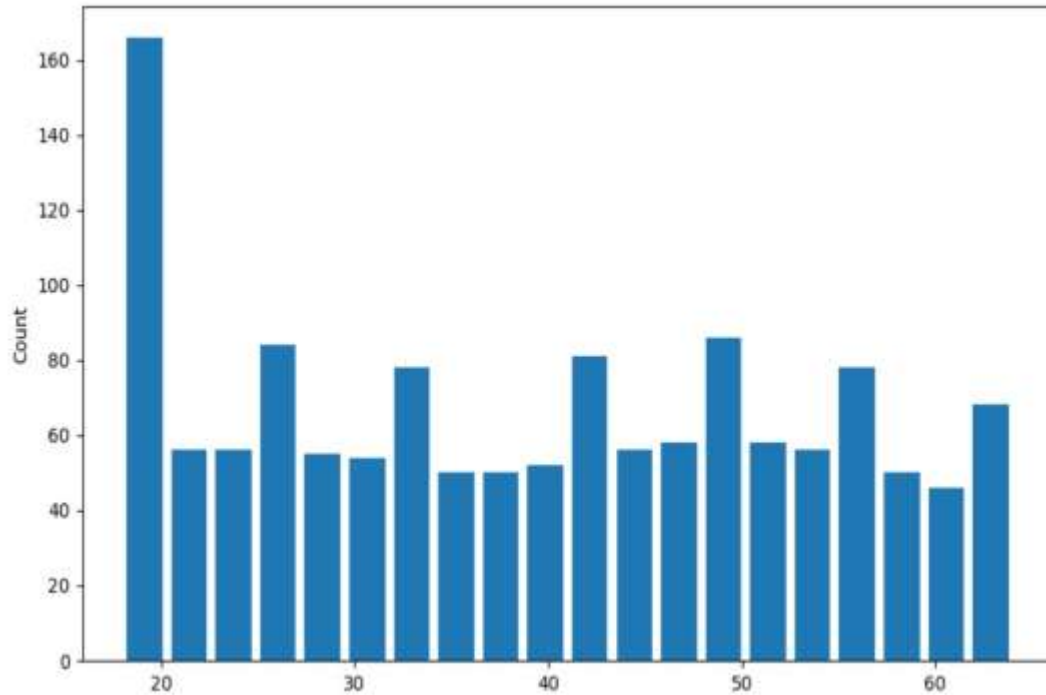


# MODELLING

This slide represents the mock-ups and also landing page of the website using [FIGMA](#)



# RESULTS



This model predicts loan default likelihood based on borrower data, aiding lenders in risk assessment. It offers actionable insights, empowering informed decision-making for financial stability and sustainable lending practices.

[Demo](#)