



SEASONAL FLU VACCINE PREDICTION

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INTRODUCTION



- In recent decades, the prevention and control of infectious diseases have become paramount concerns in the field of public health.
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- Vaccination has emerged as one of the most effective strategies to protect individuals and communities from the threat of highly contagious diseases. .
- The occurrence of the flu season repeats annually, and each year people make a choice to either receive the flu shot or not. This attempts to develop a predictive model to forecast individuals ' decision to receive the flu shot or not during the annual flu season.



BUSINESS PROBLEM



- ApexHealth Insurance aims to empower providers with informed decisions during flu season. The model classifies individuals based on flu risk, considering factors like age and gender.
- This enables personalized preventive strategies, reducing flu cases and healthcare costs. It also identifies high-risk individuals and notifies them for early intervention, preventing severe scenarios and reducing expenses for all.



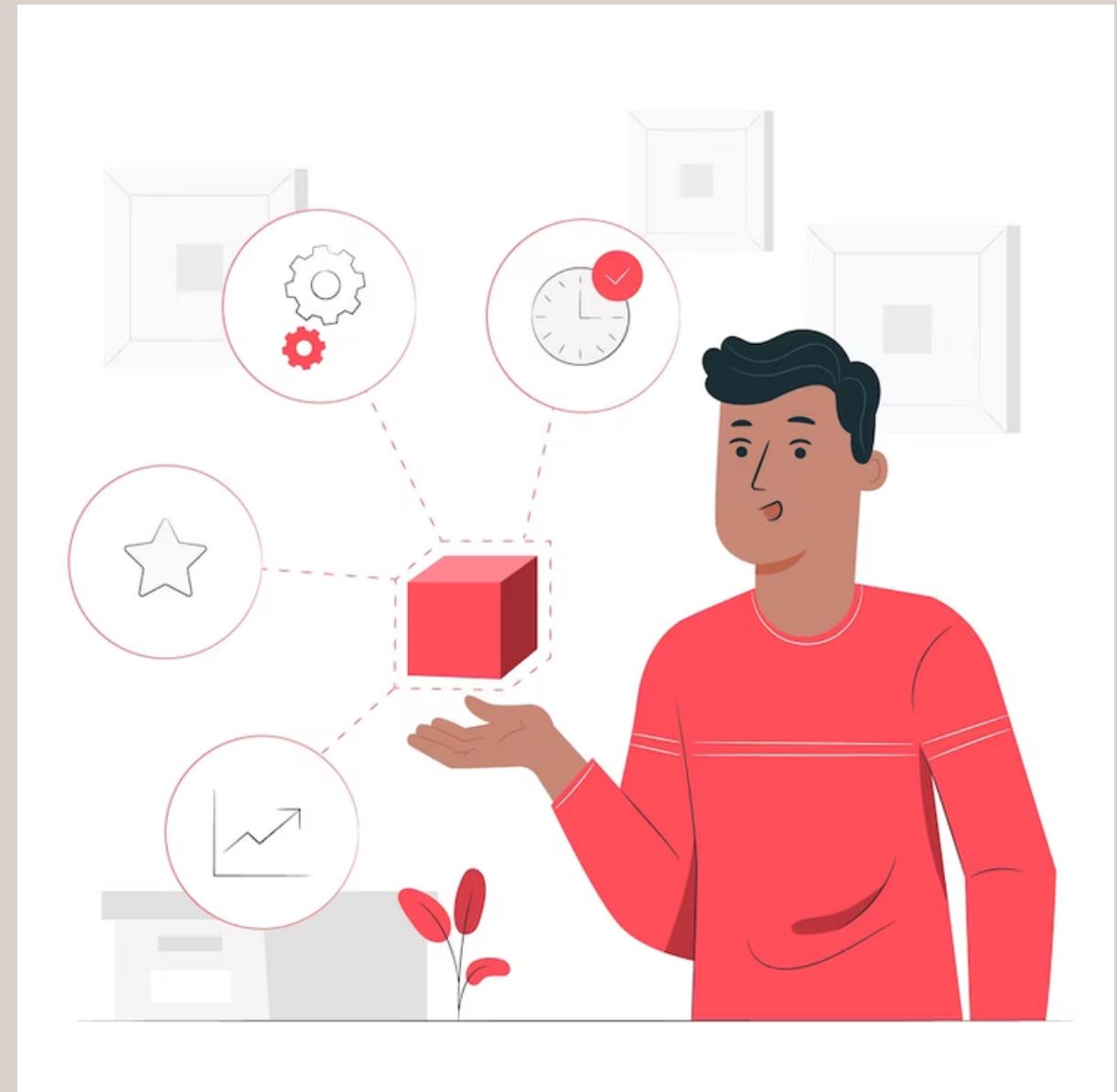
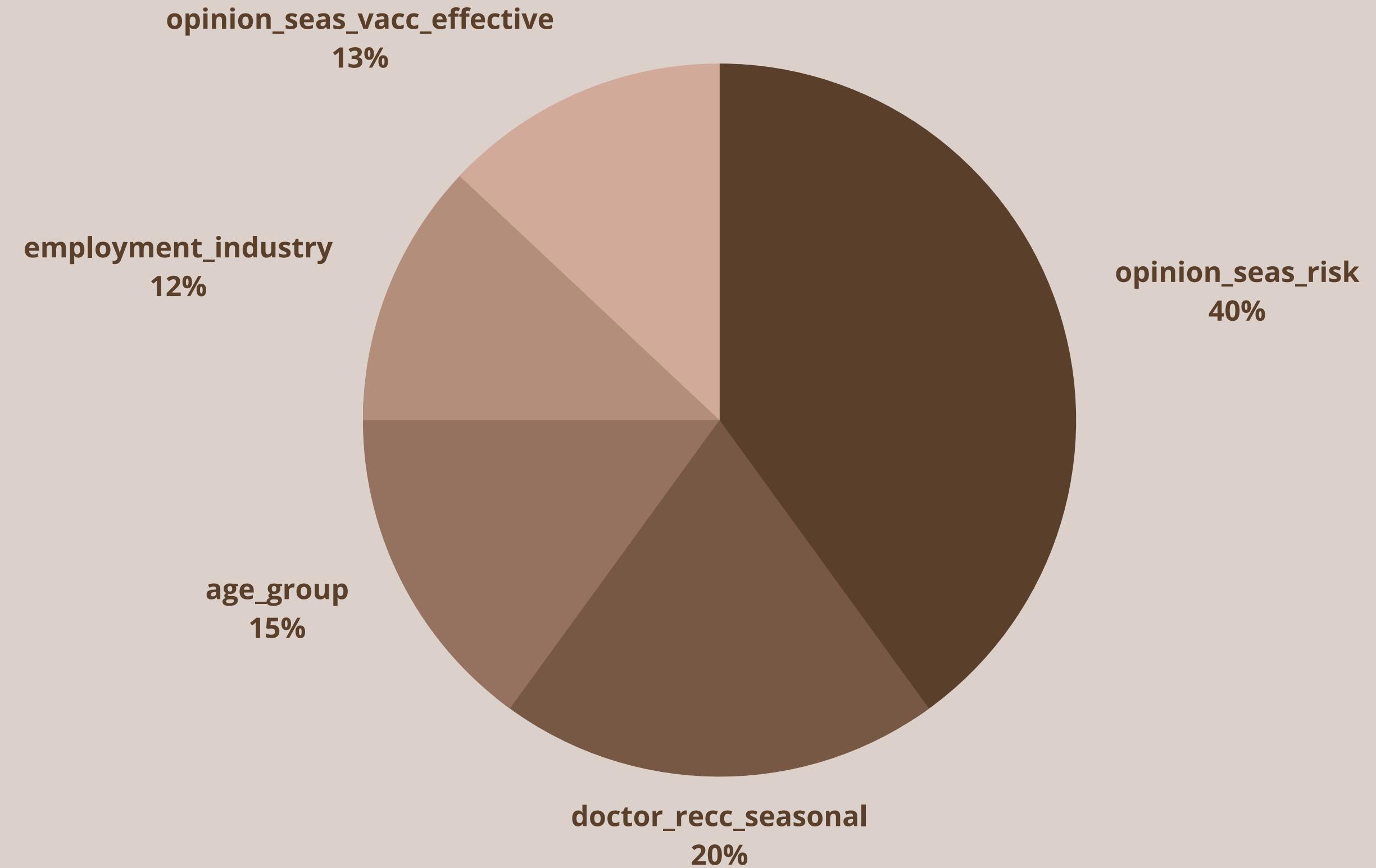
MAIN OBJECTIVE

GOAL!

- The goal of this project is to develop a predictive model using individual characteristics and behavioral patterns to estimate seasonal flu vaccine uptake

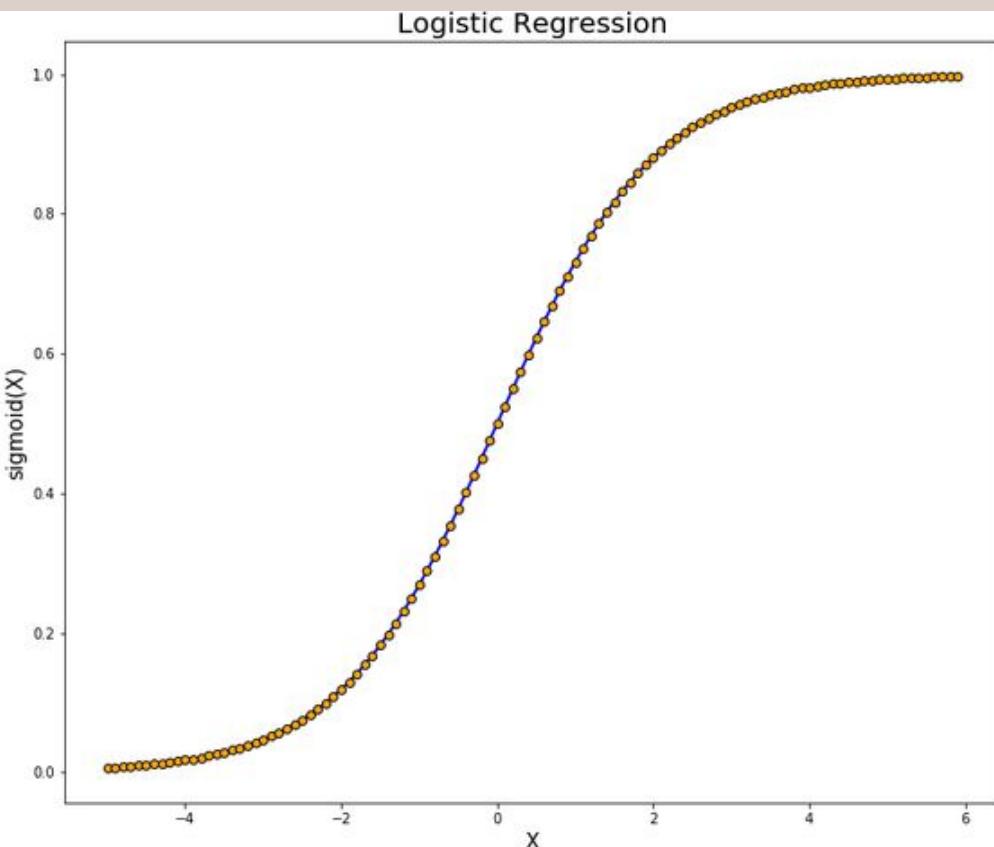


FEATURE SELECTION



MODELING

01 LOGISTIC REGRESSION



Acuraccy score =



Acuraccy score =



03 RANDOM FOREST



02 DECISION TREES



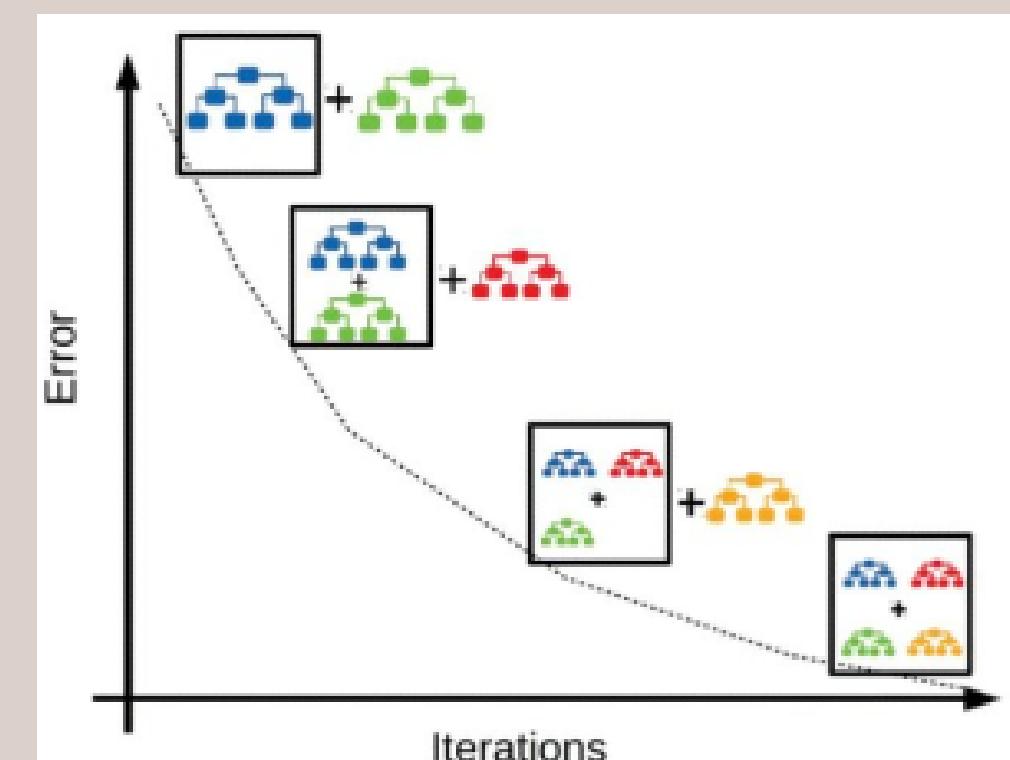
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04 GRADIENT BOOST



BEST MODEL

GRADIENT BOOST



CONCLUSION



01

02

03

04

05



CONCLUSION

“RECOMMENDATION”





**“A healthy outside
starts from the inside.”**

Robert Urich

Thank You