

# Heart Disease Classification

Using Machine Learning to help identify patients with heart disease

# Overview

- Business + Business Problem
- The Project Data
- Model Iteration
- The Final Model
- Recommendations



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# The Business + Business Problem

- 17.9 million lives per year
- Health Care Providers → early diagnosis + treatment
- Machine Learning Model to predict if heart disease present



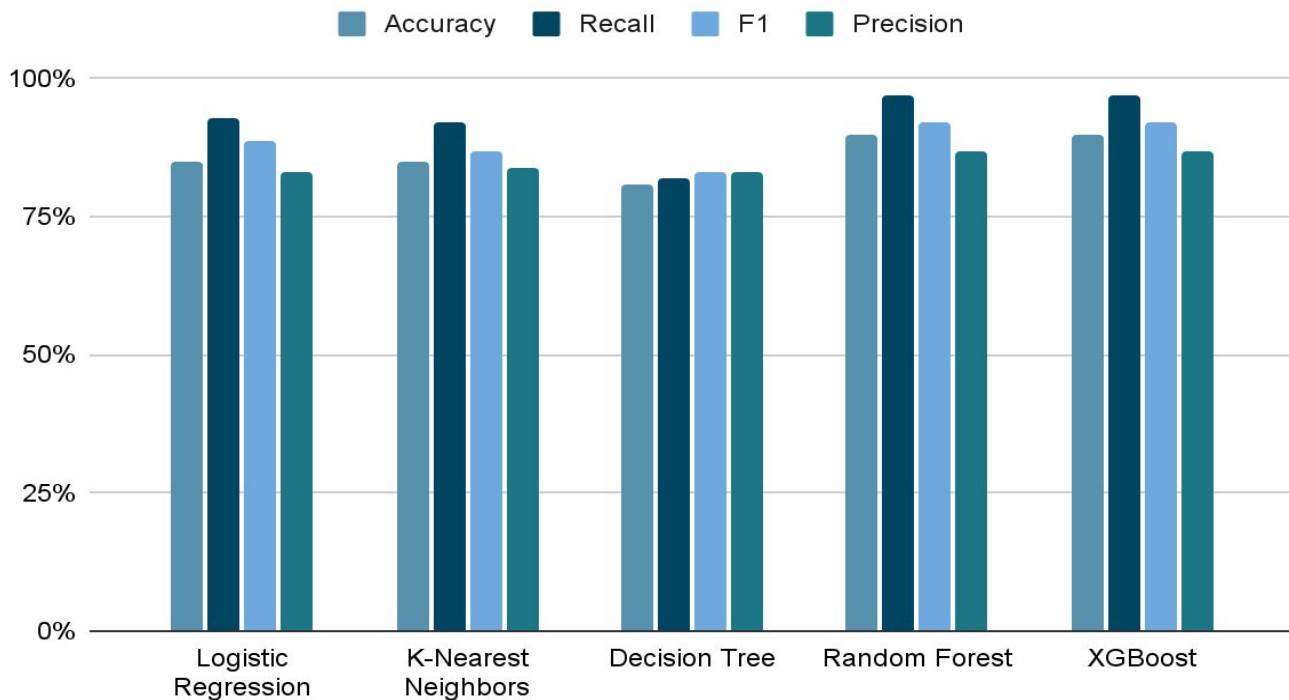
Photo by [Michel E](#) on [Unsplash](#)

# The Project Data

- Sourced from [Kaggle](#) → UCI Machine Learning Database
- 11 Independent Factors (patient data)
- Data Preparation – missing values for Cholesterol



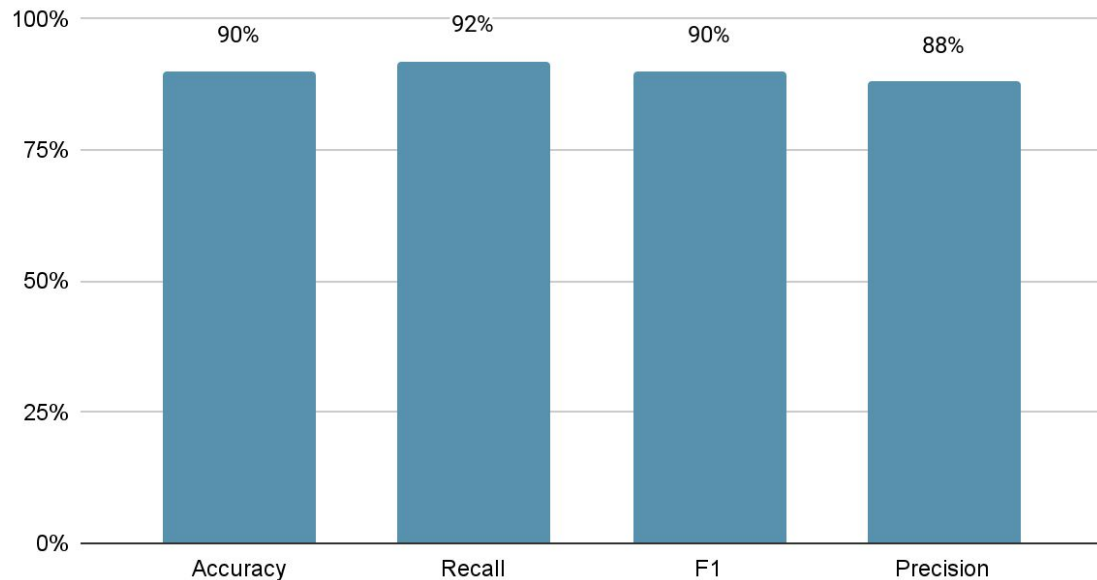
# Model Iteration



- Capture sick patients without undue burden on healthy patients
- Further tuning of best two models

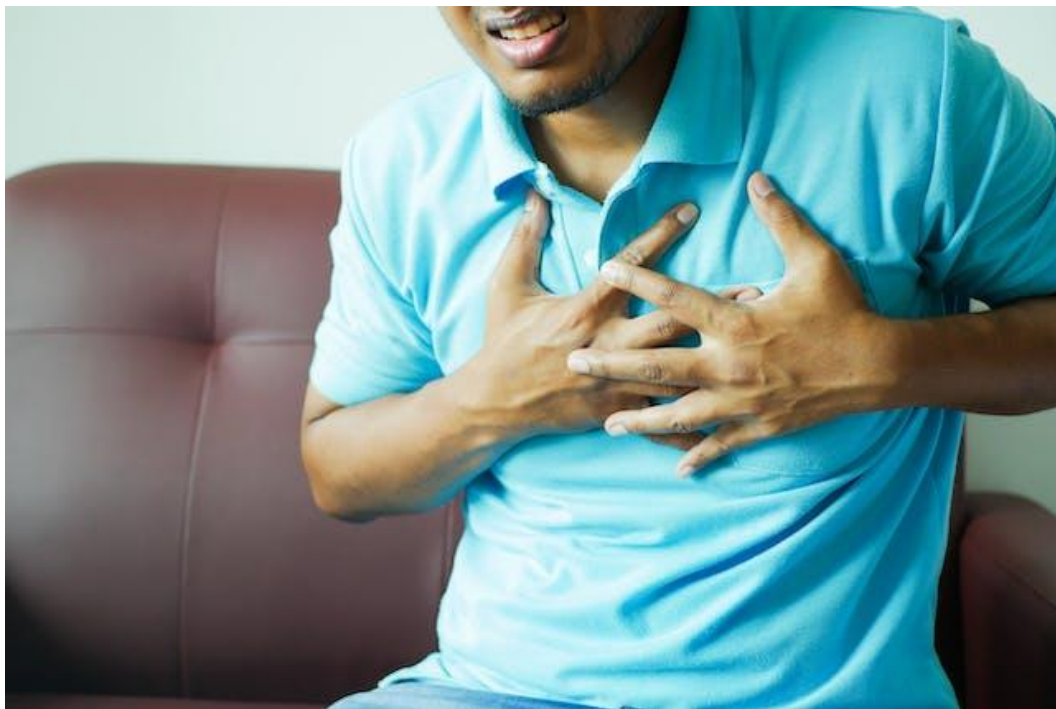
# The Final Model

Metric Evaluation



Confusion Matrix		Predicted Value	
		Healthy	Heart Disease
		Healthy	Heart Disease
True Value	Healthy	95	15
	Heart Disease	9	111

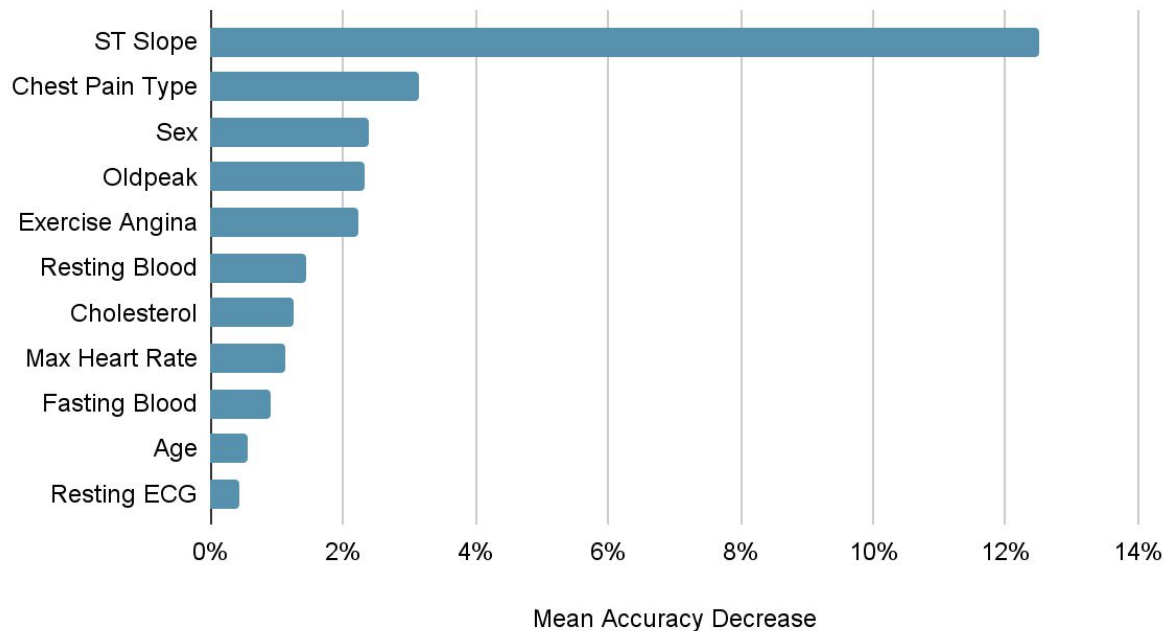
# Recommendations



1. Use the Model!

# Recommendations

## Feature Importance



2. Gather more ECG readings during exercise
3. Survey on Chest Pain



# Questions, Comments, Concerns?

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