Healthy
Hearts Inc.

INSIGHTS OF
HEART HEALTH RISK INTERVENTION PROGRAM

Presented by: Parag Subhash Padekar.

Image source - GenAI

PROBLEM

48%

People in USA have some type of Cardiovascular disease

51%

People don't know they have a CVD

#1

Heart Disease has been the top most reason for deaths

SOLUTION

283

Patients Demographic data available in database

60%

Patients can be accurately classified on Heart disease risk scale

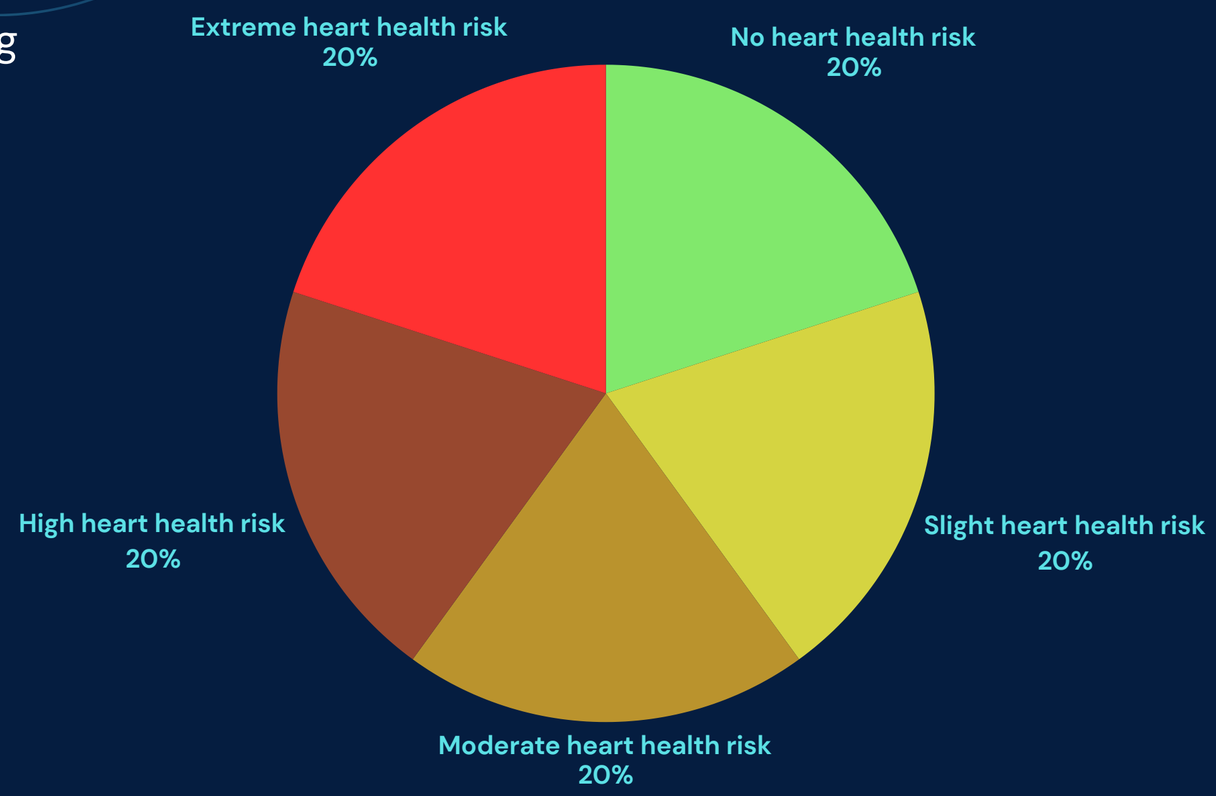
128$

Projected Net Profit per patient can be achieved

Data Source

Outlook of the dataset

- The dataset consists of demographic data of patients along with some medical parameters.
- Every correct prediction can potentially bring 500$ worth of profit individually.
- The Heart Health Risk Indicator is classified into 5 categories based on severity.

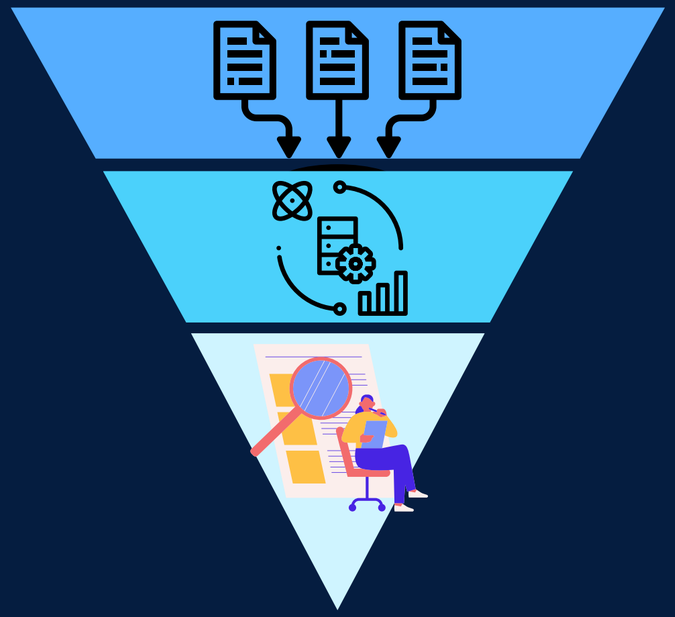


TRANSFORMING DATA TO SOCIAL IMPACT

Data → Technology → Profits → Social Impact

PROGRAM OUTLINE

Provide the Heart Disease Risk Indicator based on the demographic data of patients testing at our facilities.



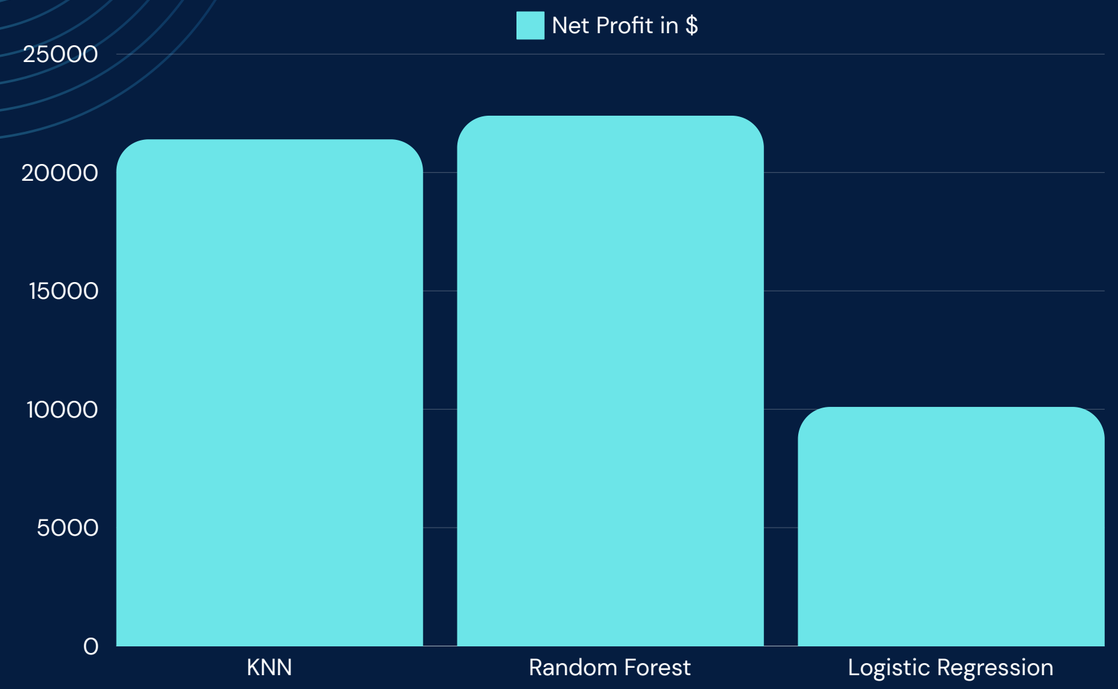
01 Collect and Sample the required data from the patient like age, sex and record medical test readings like cholestrol, peak heart rate, BP etc.

02 Feed the data into the Data classification model and generate the Heart Disease Risk Indicator.

03 Based on the Heart Disease Risk Indicator outcome propose the respective intervention programs to the patients.

Technical Analysis

- Leveraging data mining techniques and comparing 3 different data classifiers we are able to achieve 60% accurate classification of Heart Disease Risk Indicator.
- Current demographic data in the dataset is having more samples for Class 0 outcomes. Hence the predictions of other classes are not very accurate.
- The predications can be improved by gathering balanced number of samples for every Heart disease risk indicator class.
- Net profit of 22,400 $ is achieved over 283 patients data.



Heart Disease Risk Class	Class 0	Class 1	Class 2	Class 3	Class 4
Number of Samples	157	50	31	32	12

SUMMARY

Data Utilization

Making use of existing patient data to extract more value and business profit.

Customer Value

Helping the customers to identify the health risk and provide proactive prevention measures.

Innovation

Innovating and extending the business concept from diagnostics till intervention and prevention plan.

FUTURE PROSPECT

DATA

Gather more data for minority classes

Focus on getting accurate and relevant data.

PREDICTIONS

Explore other classification models

Integrate the classifiers with other data science models.