“HEAL HARBOR”

School of Computer Science Engineering and Technology
Bennett University, India

BENNETT UNIVERSITY
TIMES OF INDIA GROUP

Introduction: -

Through cutting edge and vast data on healthcare our project is a detailed analogy of medication. With data-driven analytics, we analyze disease outcomes, recognize symptoms, and provide personalized recommendations, leading to proactive healthcare and a more informed society.

Problem Statement: -

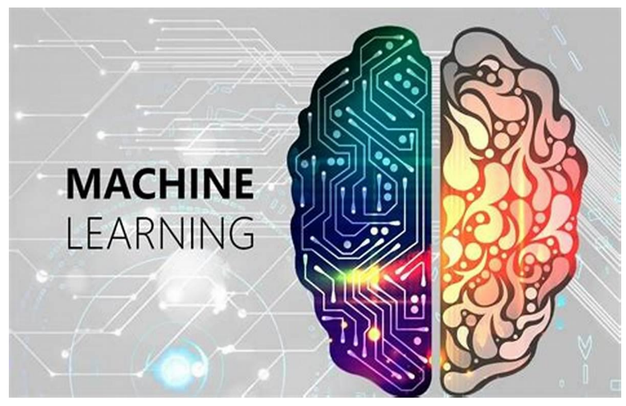
In society people are generally unaware of the diseases and the symptoms that might lead to one such disease so in order to spread awareness we will be delivering a project for the people for which they can be known of the disease that they might be suffering with.

Solution: -

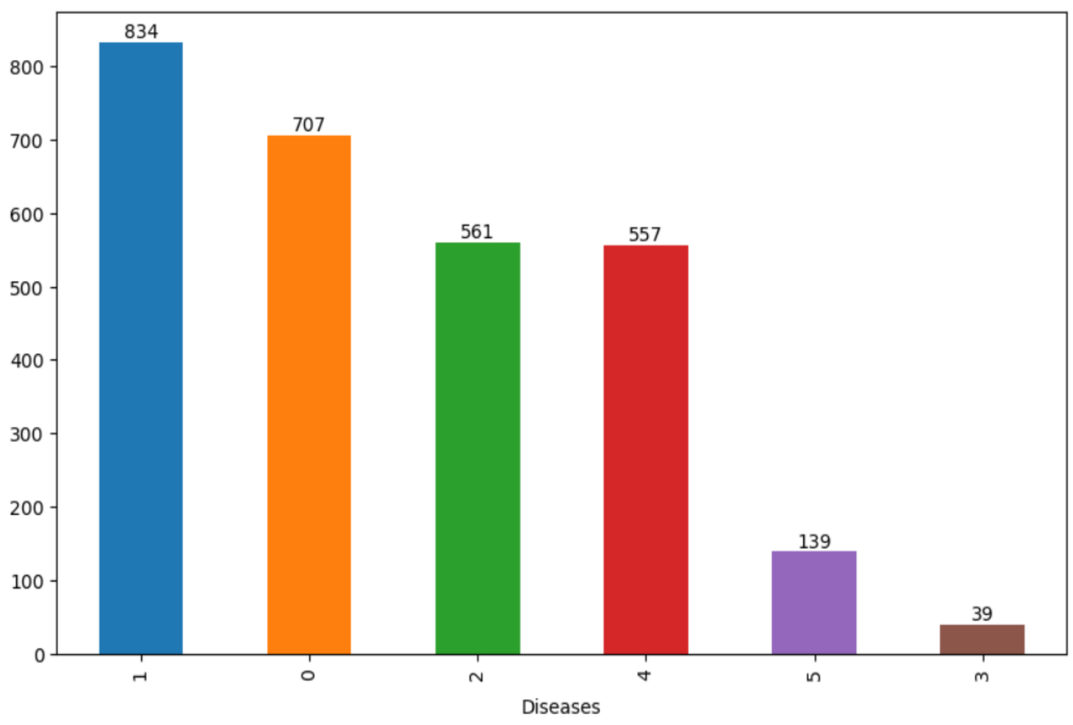
Our project focuses on predictive analysis for disease outcomes and personalized precautionary accommodations through cutting edge algorithms. Heal Harbor strives to detect early detection, optimized treatment strategies and promote proactive healthcare measures. Ultimately, contributing to a healthy and more informed society. This project will be trained on deep learning, machine learning and data mining algorithm.

Techniques Utilized: -

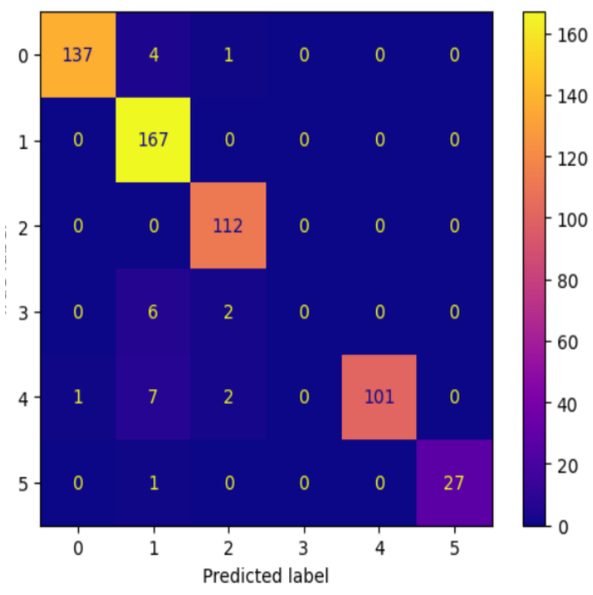
pandas NumPy seaborn matplotlib Keras



User Interface/Demo Snapshots: -

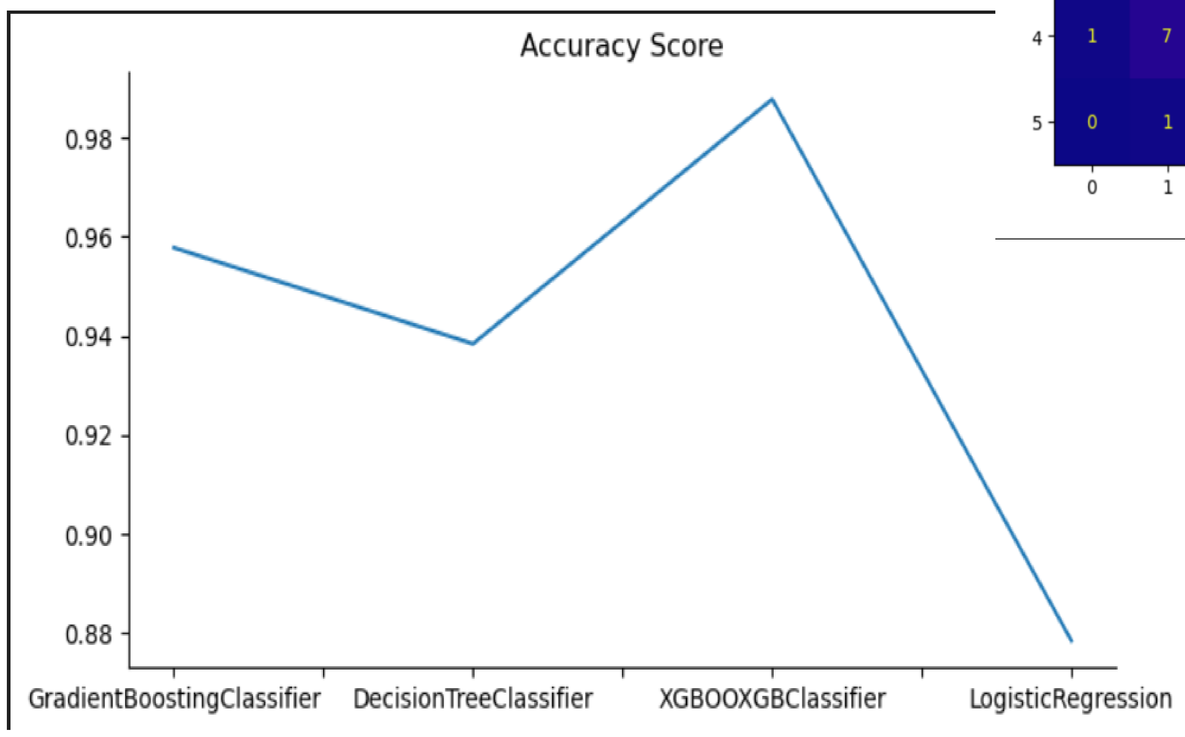


2: Healty
1: Diabetes 4: Thalasse
0: Anemia
5: Thromboc
3: Heart Di



	Accuracy Score	Train Accuracy
GradientBoostingClassifier	0.957746	0.973116
DecisionTreeClassifier	0.938380	0.967387
XGBOOXGBClassifier	0.987676	1.000000
LogisticRegression	0.878521	0.878801

Fig. 1 Comparison between the several ML Algorithms




```
Enter value for Glucose:  0.001827
Enter value for Cholesterol:  0.033693
Enter value for Hemoglobin:  0.114755
Enter value for Platelets:  0.97927
Enter value for White Blood Cells:  0.562604
Enter value for Red Blood Cells:  0.866499
Enter value for Hematocrit:  0.578042
Enter value for Mean Corpuscular Volume:  0.914615
Enter value for Mean Corpuscular Hemoglobin:  0.026864
Enter value for Mean Corpuscular Hemoglobin Concentration:  0.038641
Enter value for Insulin:  0.645755
Enter value for BMI:  0.070888
Enter value for Systolic Blood Pressure:  0.616684
Enter value for Diastolic Blood Pressure:  0.970168
Enter value for Triglycerides:  0.65323
Enter value for HbA1c:  0.186104
Enter value for LDL Cholesterol:  0.430398
Enter value for HDL Cholesterol:  0.016678
Enter value for ALT:  0.885352
Enter value for AST:  0.652733
Enter value for Heart Rate:  0.652733
Enter value for Creatinine:  0
Enter value for Troponin:  0
Enter value for C-reactive Protein:  0
Most Probable Disease: Thalasse
```

Fig. 2 Model on Xgboost Classifier

Conclusion: -

Through our data science project, we are dedicated to revolutionizing disease awareness and proactive healthcare. In this project we have used the Xgboost classifier to train our final model as in fig.1 it can be clearly noticed that this algorithm has the highest accuracy. Together, we can build a healthier and more informed society.

Team Members: -

AAMIR IMAM :-E22CSEU0220
FAIZAN E RASOOL :- E22CSEU0215
DAKSH JAIN: - E22CSEU1463

Mentor: -

DR. SHAHNAWAZ AHMAD

Github Link: -https://github.com/djthehype/HEAL-HARBOR