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Semester VI-Project Synopsis

MyMedCare: *Personalized Disease Prediction and Healthcare Recommendations*

Aim:

In an era where healthcare is increasingly becoming personalized and data-driven, "MyMedCare" emerges as a revolutionary platform aimed at empowering individuals to take charge of their health proactively. Utilizing advanced machine learning algorithms and vast medical databases, MyMedCare offers a comprehensive suite of services, including multiple disease prediction and **tailored doctor and hospital recommendations.**

Methodology:

"MyMedCare" is a Web Application where it will predict your disease like Breast Cancer, Pneumonia, Heart Disease, Diabetes, and Parkinsons Disease based on your report and predict whether you are on High risk or at Low risk and based on that vitals it will recommend you Doctor and Hospitals near you.

Terminology:

For a MyMedcare disease prediction and doctor recommendation web page, it includes:

1. **Disease Prediction**
   Over here a user can add its vitals and it will forecast the disease with it's Potential Health Conditions and whether the patient is likely to diagnose with that disease. Disease such as Breast Cancer, Pneumonia, Heart Disease, Diabetes, and Parkinsons Disease can be predicted here.

2. **Doctor Recommendation:**
   Here it will recommend the doctors according to the disease predicted, It will ask you whether you want to consult a Specialist or a Hospital with your Vital reports.

3. **Disease Index**
   Will add a Disease Index which include a comprehensive list of diseases along with relevant information to help users understand each disease. It will Clearly list the name of each disease. Provide a brief description of each disease to give users an overview. List common symptoms associated with each disease to help users identify potential health issues. Explain the causes or risk factors contributing to each disease.

Technology and Libraries:

Complete Project is done using Python in V S Code

- For Heart, Diabetes, Parkinsons and Breast Cancer is done using Machine Learning algorithm using libraries like Scikit-learn, XGBoost, Pandas, NumPy, sklearn and various algorithms like Classification, Accuracy Score, train_test_split, KFold, DecisionTreeClassifier, KNeighborsClassifier, GaussianNB, StandardScaler, and Pipeline

- For Pneumonia as it is done by studying the X-Ray Image it is done by using Deep Learning using CNN such as Keras, PIL, and streamlit.

Dataset:

Each Dataset is depicted from Kaggle.

Conclusions:

Through the implementation of robust machine learning models and extensive healthcare datasets, MyMedCare delivers reliable predictions for a wide range of diseases, enhancing early detection and proactive management of health conditions. The integration of user-friendly features, such as search functionality and alphabetical disease indexing, ensures seamless navigation and accessibility of information for users of all backgrounds.