

This repository contains the complete codebase for the Multiple Disease Prediction System built with Streamlit,
along with machine learning training notebooks and datasets.

It predicts the risk of multiple diseases (Diabetes, Heart Disease, Parkinson's) using trained ML models,
and provides additional features like doctor suggestion and personalized diet plans.

Project Structure

multiple-disease-prediction-app/

app.py - Main Streamlit app
requirements.txt - Python libraries needed
saved_models/ - Pre-trained ML models

 diabetes_model.sav

 heart_disease_model.sav

 parkinsons_model.sav

datasets/ - Data used to train the models

 diabetes.csv

 heart.csv

 parkinsons.csv

notebooks/ - Jupyter Notebooks to train models

 Diabetes_Prediction.ipynb

 Heart_Disease_Prediction.ipynb

 Parkinsons_Prediction.ipynb

Features

Predict multiple diseases:

- Diabetes
- Heart Disease
- Parkinson's

Doctor Suggestion System:

- City, State, Country selection with dynamic dropdowns.
- Manual city input with auto country/state fill.

Personalized Diet Plans:

- Based on diet type, preference, budget.

Modern UI with blur background.

Setup Instructions

1. Install dependencies:

```
pip install -r requirements.txt
```

2. For notebooks:

```
pip install pandas numpy scikit-learn matplotlib seaborn jupyter
```

3. Run the app:

```
streamlit run app.py
```

ML Models

- Diabetes : Logistic Regression (~78%)
- Heart Disease : Random Forest (~85%)
- Parkinson's : SVM (~88%)

How to Retrain Models

Open corresponding notebook, retrain, and replace .sav file in saved_models/

Tech Stack

- Python, Streamlit, scikit-learn, pandas, numpy, Jupyter, HTML/CSS/JS

Future Scope

- Integrate real-time doctor APIs
- Build recommendation engine for diets
- Add user login & history tracking