InnotechGroupProject

Overview

This project is part of the **Innotech** school event. The team, **Binary Brigade**, developed a solution focused on the **early diagnosis of heart disease risks**. The project combines **data analysis**, **machine learning**, and a **Streamlit interface** to provide a functional and interactive experience for predicting heart disease risks based on various health metrics.

Team Members:

- **Harsh Bhardwaj** (Team Lead)
- **Chanchal**
- **Harshit Gupta**
- **Kuldeep Chaudhary**

Contributions

Harsh Bhardwaj:

- **Data Analysis**:
    - Performed dataset refinement and updates.
    - Trained the machine learning model and imported the trained model for use in the application.

Chanchal, Harshit Gupta, Kuldeep Chaudhary:

- **Streamlit Interface**:
    - Developed the app file and created a user-friendly interface using Streamlit.
    - Ensured the app was interactive and easy to navigate.

Harshita & Kuldeep:

- **Improvements & Suggestions**:
    - Suggested improvements in the interface and user experience.
    - Provided feedback and fine-tuned the application.

Harsh & Chanchal:

- **Interface Upgrade**:

- Upgraded the interface for better functionality and design, ensuring a smoother experience for users.

Project Objective

The project takes user inputs such as **age**, **BMI**, **smoking habits**, **sugar levels**, and **cholesterol levels** to predict the risks of heart disease.

Technologies Used:

- **Python**
- **Streamlit**
- **Imbalanced-learn (imblearn)**
- **Scikit-learn (sklearn)**
- **Pandas**
- **Numpy**

Installation

1. Clone this repository:

bash

Copy code

git clone https://github.com/your-username/InnotechGroupProject.git

cd InnotechGroupProject

2. Install the required dependencies:

bash

Copy code

pip install -r requirements.txt

3. Ensure you have Python 3.x and pip installed.

Usage

To run the Streamlit app, execute the following in your terminal:

bash

Copy code

streamlit run app.py

This will start the app and open it in your browser.

License

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