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Heart Attack Prediction App Quick-Start Guide

This guide will take you through all the steps necessary to get started using the Heart Attack Prediction App.

Before we begin, ensure the following are installed on your system:

- Python 3.12.5
- Jupyter Notebook or Anaconda
- PyCharm
- Required Python Libraries: scikit-learn, matplotlib, seaborn, tkinter, pandas

To view the data visualization and accuracy reports:

For your convenience, if all that is desired is to view the data and not make any changes, open the HTML file "CapstoneHeartAttackDataVis.html." This version is not interactive but can be viewed in any browser for quick reference.

If you want to see the data in action or play around with it yourself:

- Open Jupyter Notebook and launch the Jupyter Notebook titled "CapstoneHeartAttackDataVis.ipynb"
- In the first cell block, edit this line "os.chdir('/Users/ashto/OneDrive/Desktop/capstone')" so that it points to the correct file path where the "heart.csv" data file is located
- Run the notebook by clicking the play button near the top of the screen

To use the Heart Attack Prediction tool:

- Launch PyCharm
- Click file →Open and select the provided folder "HeartAttackPrediciton"
- Click the green arrow near the top of the PyCharm screen to run the program
- Enter the patient's vitals

  Example Vitals:

Age	38	67
Sex (Enter 1 for Male, 0 for Female	0	1
Chest Pain Type	2	0
Resting Blood Pressure	138	160
Cholesterol	175	286
Fasting Blood Sugar	0	0
Resting ECG (0-2)	1	0
Max Heart Rate	173	108
Exercise Induced Angina (1 = Yes 0 = No)	0	1
ST Depression	0	1.5
Slope of ST (0-2)	2	1
Vessels Colored By Fluoroscopy (0-3)	4	3
Thalassemia 1, 2, or 3	2	2

  Note: this example illustrates that a relatively healthy 38-year-old who might be otherwise brushed off is at risk of a heart attack, whereas the 67-year-old, even with various markers that highlight some health issues, is not at risk.

- Click the Red "Predict" button