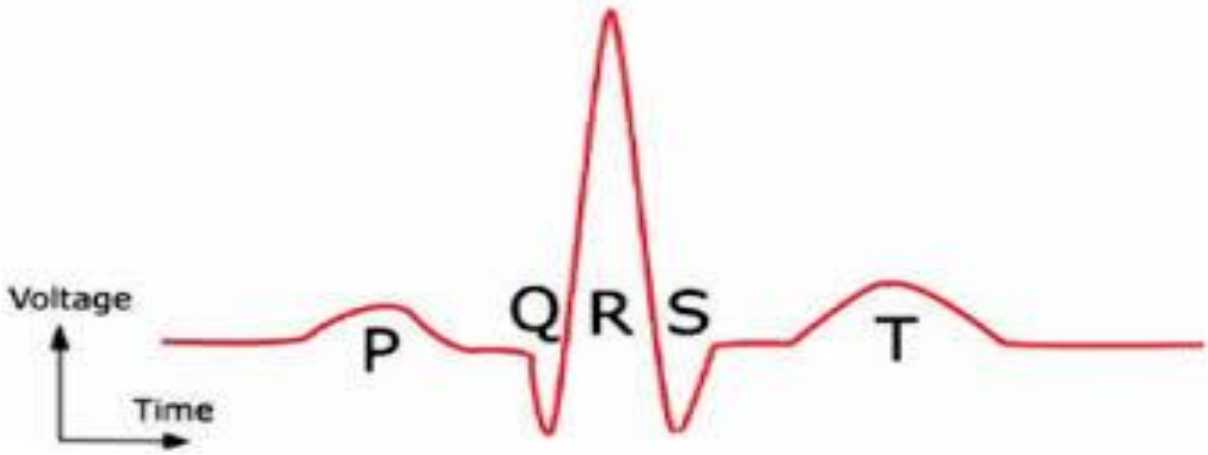
كلية الحاسبات والذكاء الإصطناعي
Faculty of Computers & Artificial Intelligence

FACULTY OF COMPUTING and ARTIFICIAL INTELLIGENCE
MEDICAL INFORMATICS DEPARTMENT

جامعة حلوان
Helwan University
HELWAN UUNIVERSITY

ECG Assignment on MATLAB



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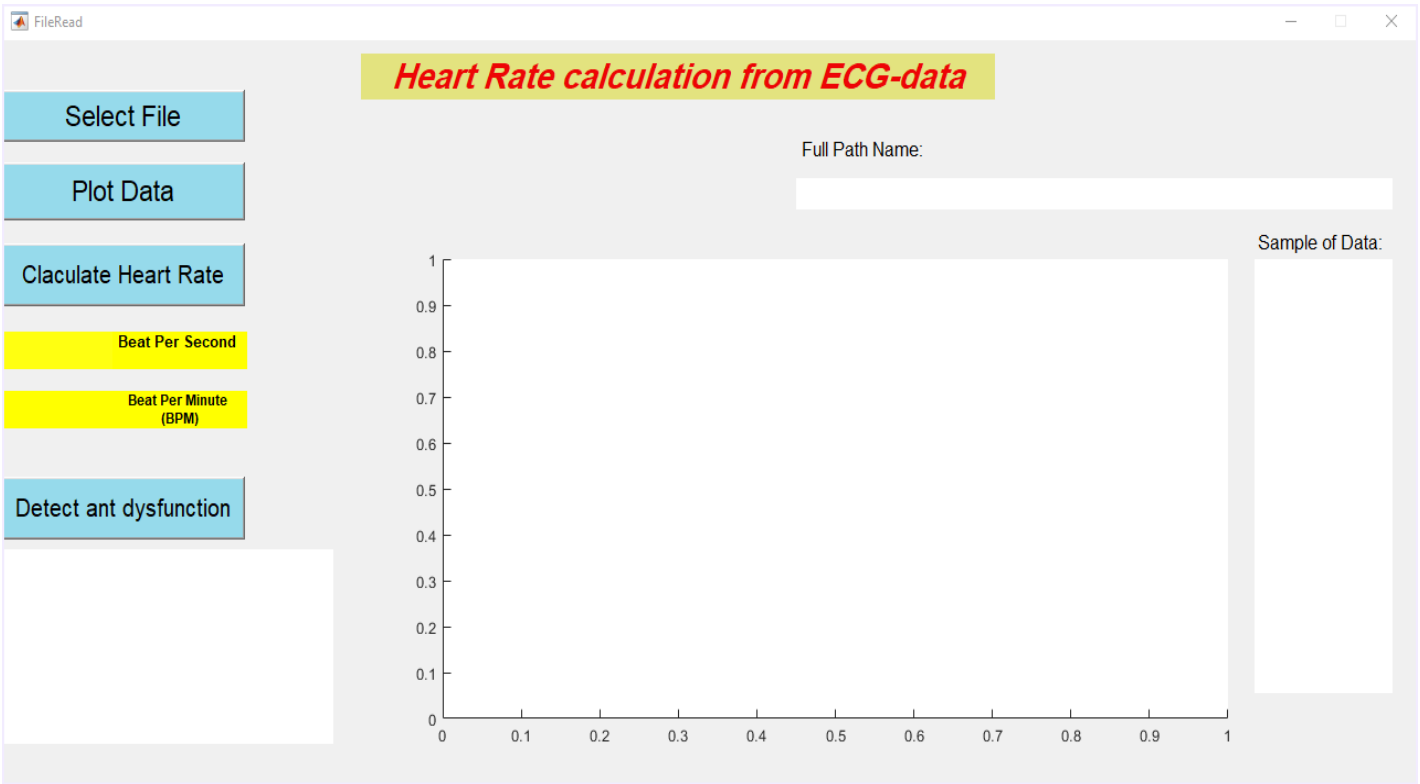
Overview:

This program is for select an ECG data and represent it on a graph using the plot function on MATLAB, in addition calculate the heart rate in minutes and seconds and in the last we check if this person has any myocardial dysfunction for example: it is known that the normal range for heart rate is (60 – 100) BPM
If it became more than 100 BPM we can decide that this person has tachycardia as well as if the person's heart rate became less than 60 BPM we deduce that he has bradycardia

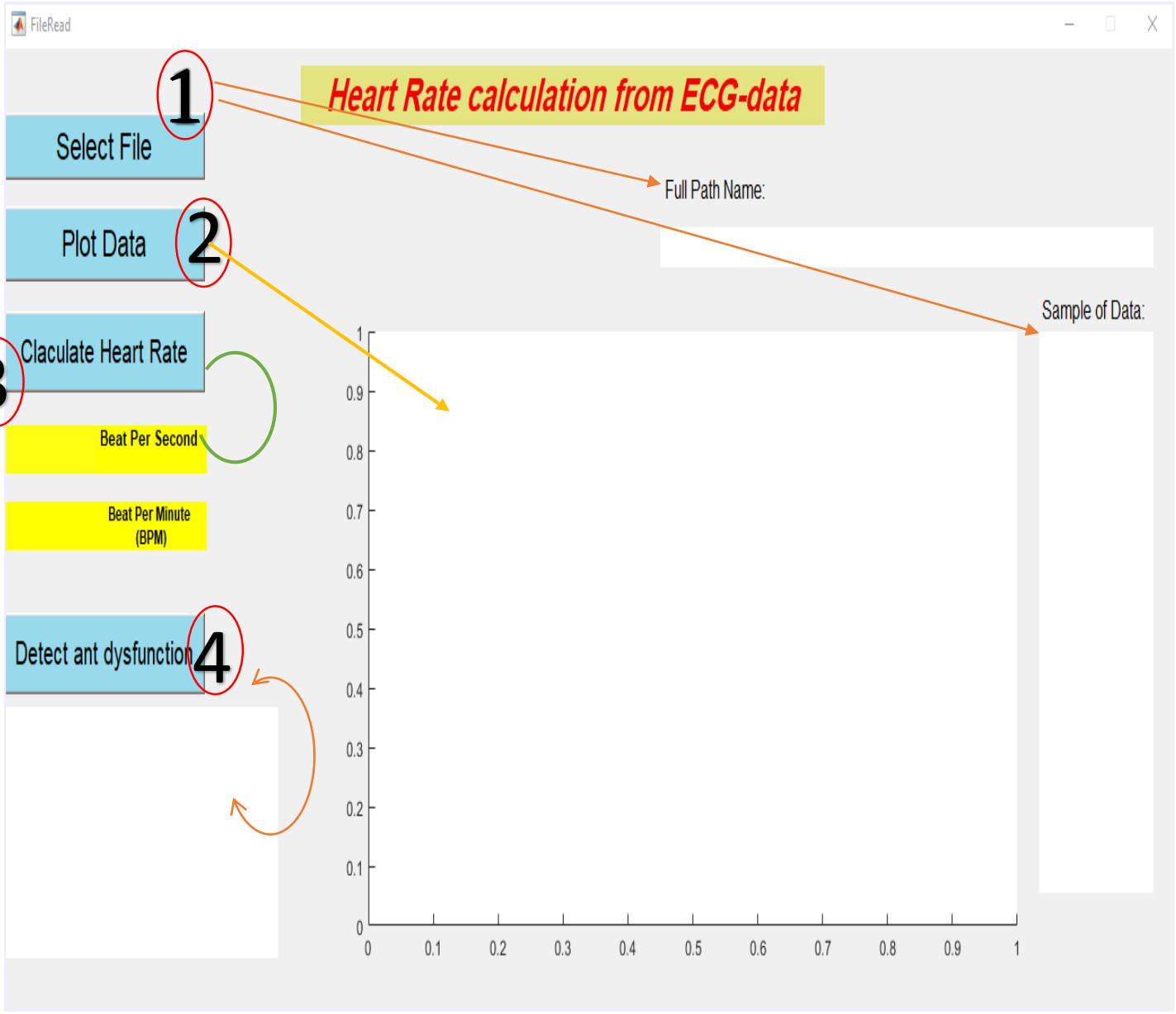
Program GUI:



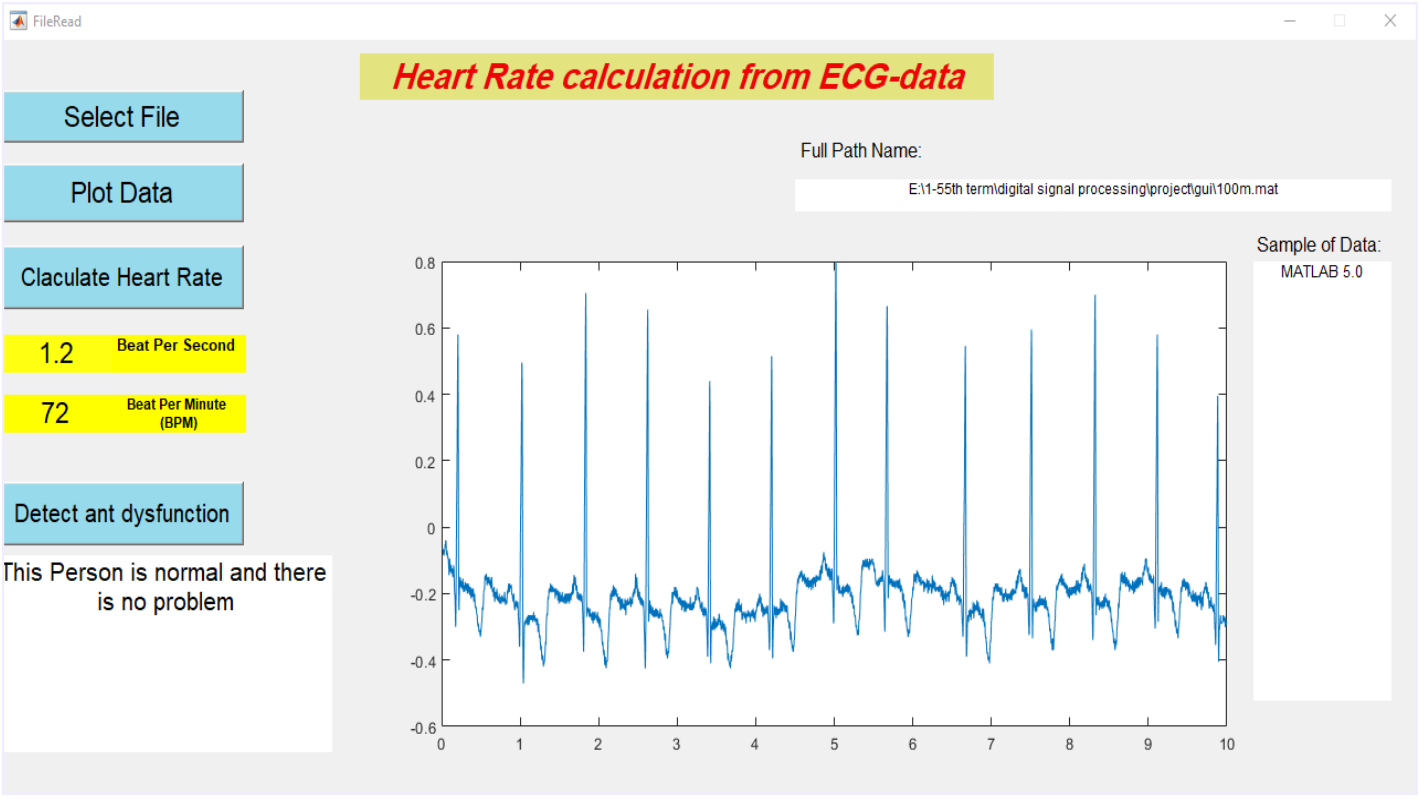
Program operations:

1- Select a file from any path you want, and it is extension may be .mat or .txt
2- Plot the data
3- Calculate heart rate in minutes and seconds
4- Detect any myocardial dysfunction

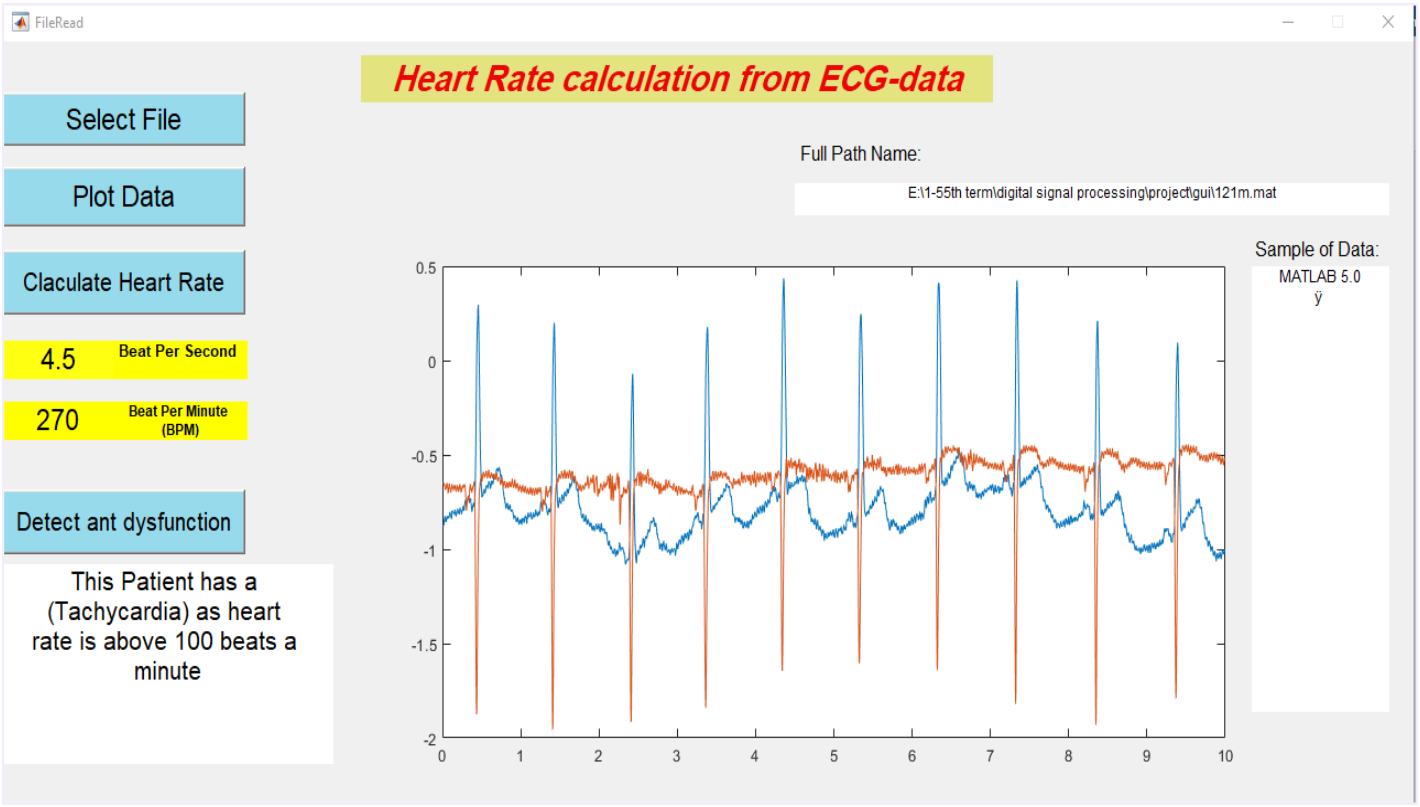
Running steps:



Samples of the program output:



Data for normal person



Sample for abnormal Heart rate