**Heart Disease Data Set**

[UCI Machine Learning Repository: Heart Disease Data Set](https://archive.ics.uci.edu/ml/datasets/Heart+Disease)

**Attribute Information:**

Only 14 attributes used:  
1. #3 (age)  
2. #4 (sex)  
3. #9 (cp)  
4. #10 (trestbps)  
5. #12 (chol)  
6. #16 (fbs)  
7. #19 (restecg)  
8. #32 (thalach)  
9. #38 (exang)  
10. #40 (oldpeak)  
11. #41 (slope)  
12. #44 (ca)  
13. #51 (thal)  
14. #58 (num) (the predicted attribute)  
  
Complete attribute documentation:  
1 id: patient identification number  
2 ccf: social security number (I replaced this with a dummy value of 0)  
3 age: age in years  
4 sex: sex (1 = male; 0 = female)  
5 painloc: chest pain location (1 = substernal; 0 = otherwise)  
6 painexer (1 = provoked by exertion; 0 = otherwise)  
7 relrest (1 = relieved after rest; 0 = otherwise)  
8 pncaden (sum of 5, 6, and 7)  
9 cp: chest pain type  
-- Value 1: typical angina  
-- Value 2: atypical angina  
-- Value 3: non-anginal pain  
-- Value 4: asymptomatic  
10 trestbps: resting blood pressure (in mm Hg on admission to the hospital)  
11 htn  
12 chol: serum cholestoral in mg/dl  
13 smoke: I believe this is 1 = yes; 0 = no (is or is not a smoker)  
14 cigs (cigarettes per day)  
15 years (number of years as a smoker)  
16 fbs: (fasting blood sugar > 120 mg/dl) (1 = true; 0 = false)  
17 dm (1 = history of diabetes; 0 = no such history)  
18 famhist: family history of coronary artery disease (1 = yes; 0 = no)  
19 restecg: resting electrocardiographic results  
-- Value 0: normal  
-- Value 1: having ST-T wave abnormality (T wave inversions and/or ST elevation or depression of > 0.05 mV)  
-- Value 2: showing probable or definite left ventricular hypertrophy by Estes' criteria  
20 ekgmo (month of exercise ECG reading)  
21 ekgday(day of exercise ECG reading)  
22 ekgyr (year of exercise ECG reading)  
23 dig (digitalis used furing exercise ECG: 1 = yes; 0 = no)  
24 prop (Beta blocker used during exercise ECG: 1 = yes; 0 = no)  
25 nitr (nitrates used during exercise ECG: 1 = yes; 0 = no)  
26 pro (calcium channel blocker used during exercise ECG: 1 = yes; 0 = no)  
27 diuretic (diuretic used used during exercise ECG: 1 = yes; 0 = no)  
28 proto: exercise protocol  
1 = Bruce  
2 = Kottus  
3 = McHenry  
4 = fast Balke  
5 = Balke  
6 = Noughton  
7 = bike 150 kpa min/min (Not sure if "kpa min/min" is what was written!)  
8 = bike 125 kpa min/min  
9 = bike 100 kpa min/min  
10 = bike 75 kpa min/min  
11 = bike 50 kpa min/min  
12 = arm ergometer  
29 thaldur: duration of exercise test in minutes  
30 thaltime: time when ST measure depression was noted  
31 met: mets achieved  
32 thalach: maximum heart rate achieved  
33 thalrest: resting heart rate  
34 tpeakbps: peak exercise blood pressure (first of 2 parts)  
35 tpeakbpd: peak exercise blood pressure (second of 2 parts)  
36 dummy  
37 trestbpd: resting blood pressure  
38 exang: exercise induced angina (1 = yes; 0 = no)  
39 xhypo: (1 = yes; 0 = no)  
40 oldpeak = ST depression induced by exercise relative to rest  
41 slope: the slope of the peak exercise ST segment  
-- Value 1: upsloping  
-- Value 2: flat  
-- Value 3: downsloping  
42 rldv5: height at rest  
43 rldv5e: height at peak exercise  
44 ca: number of major vessels (0-3) colored by flourosopy  
45 restckm: irrelevant  
46 exerckm: irrelevant  
47 restef: rest raidonuclid (sp?) ejection fraction  
48 restwm: rest wall (sp?) motion abnormality  
0 = none  
1 = mild or moderate  
2 = moderate or severe  
3 = akinesis or dyskmem (sp?)  
49 exeref: exercise radinalid (sp?) ejection fraction  
50 exerwm: exercise wall (sp?) motion  
51 thal: 3 = normal; 6 = fixed defect; 7 = reversable defect  
52 thalsev: not used  
53 thalpul: not used  
54 earlobe: not used  
55 cmo: month of cardiac cath (sp?) (perhaps "call")  
56 cday: day of cardiac cath (sp?)  
57 cyr: year of cardiac cath (sp?)  
58 num: diagnosis of heart disease (angiographic disease status)  
-- Value 0: < 50% diameter narrowing  
-- Value 1: > 50% diameter narrowing  
(in any major vessel: attributes 59 through 68 are vessels)  
59 lmt  
60 ladprox  
61 laddist  
62 diag  
63 cxmain  
64 ramus  
65 om1  
66 om2  
67 rcaprox  
68 rcadist  
69 lvx1: not used  
70 lvx2: not used  
71 lvx3: not used  
72 lvx4: not used  
73 lvf: not used  
74 cathef: not used  
75 junk: not used  
76 name: last name of patient (I replaced this with the dummy string "name")