**\*\*data dictionary\*\***

1. age - age in years

2. sex - (1 = male; 0 = female)

3. cp - chest pain type

\* 0: Typical angina: chest pain related decrease blood supply to the heart

\* 1: Atypical angina: chest pain not related to heart

\* 2: Non-anginal pain: typically esophageal spasms (non heart related)

\* 3: Asymptomatic: chest pain not showing signs of disease

4. trestbps - resting blood pressure (in mm Hg on admission to the hospital) anything above 130-140 is typically cause for concern

5. chol - serum cholestoral in mg/dl

\* serum = LDL + HDL + .2 \* triglycerides

\* above 200 is cause for concern

6. fbs - (fasting blood sugar > 120 mg/dl) (1 = true; 0 = false)

\* '>126' mg/dL signals diabetes

7. restecg - resting electrocardiographic results

\* 0: Nothing to note

\* 1: ST-T Wave abnormality

\* can range from mild symptoms to severe problems

\* signals non-normal heart beat

\* 2: Possible or definite left ventricular hypertrophy

\* Enlarged heart's main pumping chamber

8. thalach - maximum heart rate achieved

9. exang - exercise induced angina (1 = yes; 0 = no)

10. oldpeak - ST depression induced by exercise relative to rest looks at stress of heart during excercise unhealthy heart will stress more

11. slope - the slope of the peak exercise ST segment

\* 0: Upsloping: better heart rate with excercise (uncommon)

\* 1: Flatsloping: minimal change (typical healthy heart)

\* 2: Downslopins: signs of unhealthy heart

12. ca - number of major vessels (0-3) colored by flourosopy

\* colored vessel means the doctor can see the blood passing through

\* the more blood movement the better (no clots)

13. thal - thalium stress result

\* 1,3: normal

\* 6: fixed defect: used to be defect but ok now

\* 7: reversable defect: no proper blood movement when excercising

14. target - have disease or not (1=yes, 0=no) (= the predicted attribute)