AI - Machine Learning Task

As part of our recruitment process we require you to complete the following task.

Using the data linked below your task is to analyse the heart disease diagnosis data and build a machine learning model, using tools you're familiar with, that can predict the likelihood of a heart attack diagnosis. All the data points are of patients who suffered a heart attack of varying severity. You will present your model along with the process you took to build this ML model in a final interview. You have the freedom to create supervised or unsupervised models. You may also use data from other sources to determine accuracy of your model.

CSV Data

Attribute Information:

1. age: age in years
2. sex: sex (1 = male; 0 = female)
3. cp: chest pain type
    - Value 1: typical angina
    - Value 2: atypical angina
    - Value 3: non-anginal pain
    - Value 4: asymptomatic
4. trestbps: resting blood pressure (in mm Hg on admission to the hospital)
5. chol: serum cholesterol in mg/dl
6. fbs: (fasting blood sugar > 120 mg/dl) (1 = true; 0 = false)
7. 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

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
11. slope: the slope of the peak exercise ST segment
    - Value 1: upsloping
    - Value 2: flat

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Value 3: downsloping

12. ca: number of major vessels (0-3) colored by fluoroscopy
13. thal: 3 = normal; 6 = fixed defect; 7 = reversible defect
14. 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)

If you have any questions please contact Nash at nmbaya@realresponse.com.au.