Classification Analysis Case Study

Let's play with a case study to gain more experience!

In this case study, you will be given a dataset to play with the knowledge you just gained.

You are expected to try all the classification methods we have learned, and you are welcome to try some we haven't covered. It is important to train your learning skills so you can quickly pick up any new methods in the future.

You can create a new Google Colaboratory file, and upload the dataset into it's file folder.

You do NOT need to submit your work. Just enjoy your exploration!

Heart Attack Analysis & Prediction Dataset.csv
ZIP File

Data set explanation:

Independent Variables:

1. Age : Age of the patient
2. Sex : Sex of the patient
3. cp : Chest Pain type chest pain type
    a. Value 1: typical angina
    b. Value 2: atypical angina
    c. Value 3: non-anginal pain
    d. Value 4: asymptomatic
4. trtbps : resting blood pressure (in mm Hg)
5. chol : cholestoral in mg/dl fetched via BMI sensor
6. fbs : (fasting blood sugar > 120 mg/dl) (1 = true; 0 = false)
7. rest_ecg : resting electrocardiographic results
    a. Value 0: normal
    b. Value 1: having ST-T wave abnormality (T wave inversions and/or ST elevation or depression of > 0.05 mV)
    c. Value 2: showing probable or definite left ventricular hypertrophy by Estes' criteria
8. thalach : maximum heart rate achieved
9. exng: exercise induced angina (1 = yes; 0 = no)
10. oldpeak: Previous peak
11. slp: Slope
12. caa: number of major vessels (0-3)
13. thall: Thal rate

Dependent Variable:

target:

- 0 = less chance of heart attack
- 1= more chance of heart attack