Machine Learning Model Programming (45 marks)

i.   Complete the ID3 python iteration on the provided python code **(15 marks)**

ii.   Plot the constructed decision tree using network x **(10 marks)**

iii.   Run your python model above and output the **confusion matrix** using **sklearn** assuming the below test data set **(10 marks) Note the Intelligent Model Label is obtained after running your model**

Car Model	Engine	Turbo	Weight	Fuel Eco	Fast? Gold Label	Fast? Intelligent Model Label
Mercedes E700	Large	No	Average	Bad	Yes	
Peugeot 504	Small	No	Light	Average	Yes	
Tractor	Small	Yes	Average	Bad	No	
Trailer	Large	No	Heavy	Bad	No	
Bus	Large	No	Average	Bad	Yes	
Mitsubishi Canter	Large	No	Light	Bad	Yes	
Lamborghini	Large	Yes	Heavy	Bad	Yes	
Tiida	Small	No	Average	Average	No	