Dyson School of Design Engineering
DE1-Computing -1, Assessment-3
This assignment carries 30% of the final mark.

This is a Python coding assignment. Please submit your answers as one jupyter notebook file with code cells or a zip file of separate Python codes for each question. Note that you will get marks for your correct attempts even if the code gives errors for some lines.

1.1 Design a class called "vehicles" that asks the user to enter basic information like engine capacity, colour, manufacturing year, and type of a vehicle. Then create two instances of vehicles whose types are car and truck respectively. Then, use print command to show the details of the two vehicles.
[**20 marks**]

1.2 Design a class called "PassengerCar" that inherits the vehicles class and specifies the vehicle type as a car. Make the PassengerCar class ask the user for the model of the vehicle and the current market value, and add these to the features of the vehicle. Create an instance of "PassengerCar", and print all the features of this instance. [**30 marks**]

1.3 Design a class called "DeliveryTruck" that inherits the vehicles class and specifies the vehicle type as a truck. Make the DeliveryTruck class ask the user for the model of the vehicle, the payload capacity in tons, and the current market value, and add these to the features of the vehicle. Create an instance of "DeliveryTruck", and print all the features of this instance. [**30 marks**]

1.4 Improve the code in 1.3 to give a useful error message if the user enters the payload capacity as a string like Five tons instead of 5. [**10 marks**]

1.5 Write a code to add the market values of the PassengerCar instance and the DeliveryTruck instance. [**10 marks**]