# Objective

Practice writing methods with parameters and return types. Also use the Scanner class to create interactive programs.

# Problem

You have one gas car and one electric car and planning to go on a road trip. You are deciding which car to take based on the cost and the total number of hours that it will take you to travel with each car. Once you have the information you will make your decision.

* Gas car cost and hours: To calculate the cost and the hours of travel we need to have the following information entered by the user
  + Miles
  + speed
  + miles per gallon
  + Price per gallon
    - Hours = miles/speed and 🡨 need to write a method
    - cost = (miles/miles per gallon) \* price per gallon 🡨-need to write a method
* Electric car cost and hours: to calculate the cost and the hours of travel we need to have the following information entered by the user:
  + Miles
  + Speed
  + Time to fully charge the battery
  + Price per charge
  + Number of miles driven per fully charged battery
    - Cost = (miles / number of miles driven per charge) \* price per charge
    - Hours = miles / speed + (miles/number of miles driven per charge) \* time to fully charge the battery

# Required methods

**public static double gasCost(double distance, double milesPerGallon, double costPerGallon)**: this method calculates the gas costand returns it which is distance divided by milesPerGallon then multiply by coastPerGallon

**public static double travelHoursGasCar(double distance , double speed)**: this method returns distance divided by speed

**public static int stops(double distance, double milesPerCharge)**: this method calculates the number of the stops needed to charge your car which is distance divided by milesPerCharge

**public static double chargeCost(int stops, double pricePerCharge)**: This method returns the number of the stops that the car needs to be charged times the money that cost to charge the car each time

**public static double travelHoursWithElectricCar(int stops, double hoursPerStop, double distance, double speed)** : this method calculates the hours it takes to travel with an electric car which is (the number of stops times hours per stop) plus (distance divided by speed)

**public static void gasTravel(Scanner kb**): refer to the program shell

**public static void electricTravel(Scanner kb)**: refer to the program shell

**public static void description ()**: code is given

**public static void main (String[] args)** : code is given

Sample output:

Refer to the provided file