

Design a class which will model a car. Car's have a make, model, and license plate number. The make and model (strings) can only be specified upon creation of a car object, if they aren't specified they should be set to "(unspecified)." The license plate number can be changed at any time.

Create a data member for a gas tank (double specifying the number of gallons in the tank; assume 15 gallons is a full tank), an odometer, and an efficiency rating. Create functions to fill the gas tank and read (get) all of the new data items. The standard (unspecified) efficiency rating is 25mpg, however the user may specify an efficiency rating when creating a car object.

Create a function called drive which advances the odometer by a random number (use the function rand()) between 1 and 25 and then reduces the gas tank by miles driven divided by efficiency rating. The function should return the number of miles driven. You must make sure that the gas tank does not go below zero gallons.