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OOP- Assignment 1 Report

The Images on the left show the output of every vehicle:

- Showing the allowed roads
- Starting a subsection (Fines), displaying if the speed the vehicle is traveling at is more than the speed limit or not
- If it is allowed on 2 roads, it shows if the speed is without fine on both or just one
- If the fine is true the vehicle's information is displayed along with the age of the car (2022-Year_Model)
- This is continued in a look until the queue of 10 vehicles is empty.

```
Microsoft Visual Studio Debug Console
car type: Private
Allowed on road A
Allowed on road B
Not Allowed on road C

Fines:
This car is fined on road A:
- Brand: Mitsubishi Lancer Evo
- Type: Private
- Licence Plate: AML 1
- Speed: 400
- Year Model: 2017
- Car Age: 5 Years

This car is fined on road B:
- Brand: Mitsubishi Lancer Evo
- Type: Private
- Licence Plate: AML 1
- Speed: 400
- Year Model: 2017
- Car Age: 5 Years

car type: Motorcycle
Allowed on road A
Allowed on road B
Not Allowed on road C

Fines:
This car is fined on road A:
- Brand: Ducati
- Type: Motorcycle
- Licence Plate: MOOT 200
- Speed: 200
- Year Model: 2022
- Car Age: 0 Years

This car is fined on road B:
- Brand: Ducati
- Type: Motorcycle
- Licence Plate: MOOT 200
```

```
Microsoft Visual Studio Debug Console
car type: Motorcycle
Allowed on road A
Allowed on road B
Not Allowed on road C

Fines:
This car is fined on road A:
- Brand: Honda
- Type: Motorcycle
- Licence Plate: MOOT 201
- Speed: 250
- Year Model: 2015
- Car Age: 7 Years

This car is fined on road B:
- Brand: Honda
- Type: Motorcycle
- Licence Plate: MOOT 201
- Speed: 250
- Year Model: 2015
- Car Age: 7 Years

car type: Motorcycle
Allowed on road A
Allowed on road B
Not Allowed on road C

Fines:
This car has no fines on Road A:)
Car Age: 21 Years

This car has no fines on road B :)
Car Age: 21 Years

car type: Bus
Not Allowed on road A
Allowed on road B
Not Allowed on road C

Fines:
This car has no fines :)
Car Age: 23 Years
```

```
Microsoft Visual Studio Debug Console
car type: Bus
Not Allowed on road A
Allowed on road B
Not Allowed on road C

Fines:
This car has no fines :)
Car Age: 23 Years

car type: Bus
Not Allowed on road A
Allowed on road B
Not Allowed on road C

Fines:
This car has no fines :)
Car Age: 19 Years

car type: Truck
Not Allowed on road A
Allowed on road B
Allowed in road C

Fines:
This car is fined on road C:
- Brand: Toyota
- Type: Truck
- Licence Plate: hadosak 400
- Speed: 70
- Year Model: 2000
- Car Age: 22 Years

This car has no fines on road B :)
Car Age: 22 Years
```

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```
Microsoft Visual Studio Debug Console

car type: Truck
Not Allowed on road A
Allowed on road B
Allowed in road C

Fines:
This car has no fines on road C :)
Car Age: 17 Years

This car has no fines on road B :)
Car Age: 17 Years

- Cars passed by road A = 6
- Cars passed by road B = 10
- Cars passed by road C = 2

The Efficiency in road A = 60%
The Efficiency in road A = 100%
The Efficiency in road A = 20%

C:\Users\Ali\Documents\Visual Studio 2022\cs2 assignment 1.1\x64\Debug\cs2 assignment 1.1.exe (process 4144) exited with code 0.
To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the console when debugging stops.
Press any key to close this window . . .
```

- In the background, whenever any vehicle is allowed on the road, the counter of that road object is incremented.
- This permits me to count the counters as these are the cars on that road
- Calculate the efficiency of each road.
- Road B will always be the one with 100% efficiency as it allows all types of vehicles.