

Welcome to Antique Car Search

```
=====
1- Search Car
2- Green Best/Worst Report
3- Car Origin Report
0- Exit
What do you want to do? 1
Required Min. MPG: 25
Required Min. Horsepower: 100
1- bmw_2002
2- saab_99le
3- chevrolet_citation
4- oldsmobile_omega_brougham
5- dodge_colt
6- datsun_280-zx
7- oldsmobile_cutlass_ls
8- datsun_200sx
9- toyota_cressida
10- buick_century_limited
Found 10 cars matching the criteria.
```

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What do you want to do? 2
Avg. MPG of all cars is : 23.4459
Greenest car is : mazda_glc with 46.6
Worst car is : hi_1200d with 9
```

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What do you want to do? 3
Enter Origin: American
We have 245 American cars in the inventory.
```

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What do you want to do? 3
Enter Origin: European
We have 68 European cars in the inventory.
```

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```
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0- Exit
What do you want to do? 0
Thank you for using Antique Car Search
Press any key to continue . . . _
```

Each feature should be implemented in its own function [30 points].

You will need to define a class and use an instance of this class for each row in the text file [20 points].

Make sure that your code is properly commented and indented [20 points].

Antique Car Search

Your task is to write a C++ program that would read the provided file containing a list of Antique cars [30 points]. For each car, the file provides the Model, MPG, Horsepower and Origin. Given the information in the file, implement the following features:

[60 points] Feature #1: Search Car

This feature allows user to search the database based on the minimum mile per gallon (MPG) and Horsepower. Once user input the minimum required MPG and horsepower, the program should display the cars that match the criteria.

[60 points] Feature #2: Best and Worst Green Cars

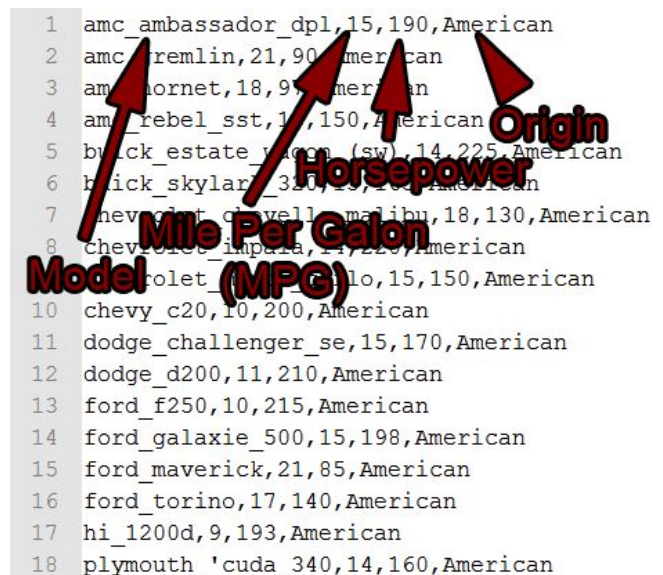
This feature would report the average MPG of all the cars in the system along with the car that has the best and the worst MPG.

[60 points] Feature #3: Inventory By Origin

We time to time would like to see how many american, european, japanese, taiwanese etc. cars in the inventory. Ask user for the origin and display how many cars from that origin we have in the database.

Please refer to the screenshot on the left for more information on each feature.

These features should be presented in a menu [20 points]. Using the menu, user can choose the feature to use.



The screenshot shows a text file with 18 rows of car data. Each row contains four fields: Model, Mile Per Gallon (MPG), Horsepower, and Origin. Red arrows point from labels to the corresponding columns in the first row:

- Model** points to the first column (e.g., amc_ambassador_dpl).
- Mile Per Gallon (MPG)** points to the second column (e.g., 15).
- Horsepower** points to the third column (e.g., 190).
- Origin** points to the fourth column (e.g., American).

```
1 amc_ambassador_dpl,15,190,American
2 amc_premlin,21,90,American
3 amc_hornet,18,90,American
4 amc_rebel_sst,14,150,American
5 buick_estate_wagon_(sw),14,225,American
6 buick_skylark,320,120,American
7 chevrolet_chevelle_malibu,18,130,American
8 chevrolet_impala,14,220,American
9 chevrolet_cadillac,15,150,American
10 chevy_c20,10,200,American
11 dodge_challenger_se,15,170,American
12 dodge_d200,11,210,American
13 ford_f250,10,215,American
14 ford_galaxie_500,15,198,American
15 ford_maverick,21,85,American
16 ford_torino,17,140,American
17 hi_1200d,9,193,American
18 plymouth_cuda_340,14,160,American
```