

Project Details:

Create a base class called Vehicle that has the manufacturer's name (type string), number of cylinders in the engine (type int), int price and owner (type Person class).

Also your base class will have a dynamic variable damages(type damagesRecords class), capacity and size.

damagesRecords class contains date information for damage time so this class will have damageDate(type Date class).

Some Class interface given to you in the code that follows.

Then create a class called cyberTruck that is derived from Vehicle and has additional properties, the load capacity in tons (type double since it may contain a fractional part) and towing capacity in pounds (type int). Be sure your classes have a reasonable complement of constructors and accessor methods, an overloaded assignment operator, and a copy constructor. Write a driver program that tests all your methods.

```
class Person{
    public:
        Person();
        Person(string n,int id);
        string getName() const{return name;}
        int getID() const{return ID;}
        void setID(int id){ID=id;}
        void setName(string n){name=n;}
        Person& operator=(const Person& rightside);
    private:
        string name;
        int ID;
};
```

```

class damageRecord{

public:

    damageRecord();

    damageRecord(int day,int month,int year,string loc,string exp,int cst);

    void getDate() const {damageDate.output();}

    int getCost() const{return cost;}

    string getLocation() const{return location;}

    string getExplain() const {return explain;}

    void setDate(int day,int month,int year) {damageDate.input(day,month,year);}

    void setLocation(string loc){location=loc;}

    void setCost(int c){cost=c;}

    void setExplain(string exp){explain=exp;}

private:

    Date damageDate;

    string location;

    string explain;

    int cost;

};

class Date{

public:

    Date( );

    Date(int dayValue,int monthValue,int yearValue);

    void input(int dayValue,int monthValue,int yearValue);

    void output() const;

private:

    int year;

    int month;

```

```
int day;  
  
void testDate( );  
  
};
```

All implementation up to you.

to compile my code you should use this;

```
g++ main.cpp person.cpp cyberTruck.cpp vehicle.cpp damage.cpp date.cpp
```

```
./a.out
```

My Output is;

```
*****Information of Your CyberTruck*****
```

Manufacturer's Name: Tesla

Owner's Name: Akif Kartal

Owner's ID: 1523478

Number of Cylinder: 2

Load Capacity: 15.2

Towing Capacity: 500

Price Of Truck: 49000\$

Safety Glass: No

Self Drive: Yes

```
***Your CyberTruck's 1. Damage Information***
```

Damage Date: 22 November 2019

Damage Location: Los Angeles in California in USA

Damage Information: Glasses was broken in unveil show

Damage Cost: 10000000\$