Lab Report 17

# Problem

We need to create the classes for different vehicles with parent functions car and truck.

# Proposed Solution

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| **Vehicle** |
| -manName : String  -cylinders : int  -ownName : String |
| +getManName : String  +getCylinders : int  +getOwnName : String  +setManName : void  +setCylinders : void  +setOwnName : void  +equals : Boolean  +toString : String |

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| --- |
| **Truck** |
| -loadCap : double  -towCap : double |
| +getLoadCap : double  +getTowCap : double  +setLoadCap : void  +setTowCap : void  +equals : Boolean  +toString : String |

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| --- |
| **Car** |
| -gas : double  -people : int |
| +getGas : double  +getPeople : int  +setGas : void  +setPeople : void  +equals : Boolean  +toString : String |

# Tests and Results

I tested all the functions of the program, and it works.

# Problems Encountered

Using the super keyword inside the toString and equals methods was difficult, but the problem was that I needed to put the super keyword inside the return statement.

# Conclusions and Discussion

Another way this program could be solved is by typing everything out in one class.

# Additional Questions

1. Draw a UML Diagram to represent the classes Vehicle, Truck and Car in the proposed solution  section.

2. Can you prevent a method from being overridden in a sub­class? Explain. Yes, use the final keyword in the method in order to prevent any overrides from occurring.