

Create class diagram for software system simulating trains and cargo.

Include following classes:

- vehicle – base class for all types of rail vehicles in the system
- passenger car. Holds some passengers. Has maximum and current number of passengers, the maximum number can be set in constructor, the current – by calling a member function that adds/removes passengers.
- cargo car. Similar to the passenger car, but holds cargo
- engine. Has maximum speed
- passenger. Can occupy a seat in a passenger car
- cargo. Can be loaded into the cargo car
- train. Contains one engine and some cars. Has route
- route. Describes route of the train

The vehicles (cars and engines) can be connected. The engine can only be connected to a car following it, the car can be connected to another car or engine before it, and to another car after it