Problem Statement

Develop a simple "Vehicle Simulator" application capable of simulating various types of vehicles navigating through different terrains. The application should support vehicles such as Car, Bus, Truck, Airbus, Cargoplane, and Ship. Each vehicle type possesses common attributes including name, initial speed, and initial fuel. Additionally, air vehicles are equipped with an initial altitude parameter.

Features of the Application

1. **Common Features for All Vehicles:**
    - **Name:** Identifies the vehicle.
    - **Initial Speed:** Represents the starting velocity of the vehicle.
    - **Initial Fuel:** Denotes the initial fuel level of the vehicle.
    - **Cargo capacity:** Denotes the standard cargo capacity of. (Only applied for Truck, Cargoplane, Ship).
2. **Air Vehicles (Airbus, Cargoplane):**
    - **Initial Altitude:** Indicates the initial height from the ground for air vehicles.
3. **Vehicle-Specific Attributes and Behaviors:**

Vehicle	Fuel Consumption Rate	Speeding Rate (%)	Slowing Rate (%)	Altitude Changing Rate (up/-down)
Car	1.2	85	75	-
Bus	1.5	80	65	-
Truck	1.8	78	60	-
Airbus	2.2	95	65	60 / 120
Cargoplane	2.4	90	60	50 / 130
Ship	2.1	70	57	-

4. **Behaviors for All Vehicles:**
    - **Move:** If sufficient fuel is available, the vehicle will commence moving which will subsequently decrease fuel levels based on the fuel consumption rate else notify to refuel.
    - **Turn:** Given a side, will change the direction of the vehicle.
    - **Speed up:** Accelerate according to speeding rate and given acceleration, adjusting its current speed.
    - **Speed down:** Decelerate according to slowing rate and given deceleration, adjusting its current speed.
    - **Ascending:** Ascend according to Altitude changing rate (Up) and given altitude, adjusting its current altitude.
    - **Descending:** Descend according to Altitude changing rate (Down) and given altitude, adjusting its current altitude.
    - **Refuel:** Given an amount, will add with the current fuel level of the vehicle.

- **Display Status:** Provide real-time status including name, speed, altitude (if applicable), and remaining fuel.

5. **Vehicle Maneuvering:**
    - All vehicles can execute turns to the left or right.
    - Air vehicles can ascend or descend in addition to standard speed adjustments.
    - Keep an option for overloaded vehicles which will decrease each rate by the amount of overload.

Your Task

Design and implement the "Vehicle Simulator" application adhering to the provided specifications. Ensure the simulation accurately represents the behavior of each vehicle type as per the chart. Demonstrate the functionality of the application through sample simulations showcasing various vehicle types navigating through different scenarios.

Sample Driver Code

```
public class App {
    public static void main(String[] args){
        Vehicle car = new Car("Sedan", 120, 10);
        Vehicle truck = new Truck("Truck", 80, 80, 5000);
        Vehicle overloadedtruck = new Truck("OverloadedTruck", 80, 80, 5000,2);

        System.out.println("Starting the journey...\n");
        System.out.println("\nInitial status of vehicles:");
        car.displayStatus();
        truck.displayStatus();
        overloadedtruck.displayStatus();
        car.move(20);
        truck.move(30);
        overloadedtruck.move(40);
        truck.speeding_up(10);
        car.refuel(40);
        car.move(20);
        overloadedtruck.slowing_down(10);
        System.out.println("\nCurrent status of vehicles:");
        car.displayStatus();
        truck.displayStatus();
        overloadedtruck.displayStatus();
    }
}
```