Design Patterns
W3A1

Topic: - Create a class diagram of any project of your choice having at least 5 classes.

Theory: -

Class Diagram: -

A class diagram is a type of diagram used in object-oriented programming to illustrate the structure of a system or application. It depicts the classes, interfaces, associations, and other objects in a system, as well as the relationships between them.

A class diagram typically includes the class name, attributes, methods, and the relationships between classes. The attributes represent the data or properties of the class, while the methods define the operations that can be performed on the class.

The relationships between classes may include inheritance, where one class is a subclass of another, or association, where one class is associated with another in some way. Other relationships that can be shown in a class diagram include aggregation, composition, and dependency.
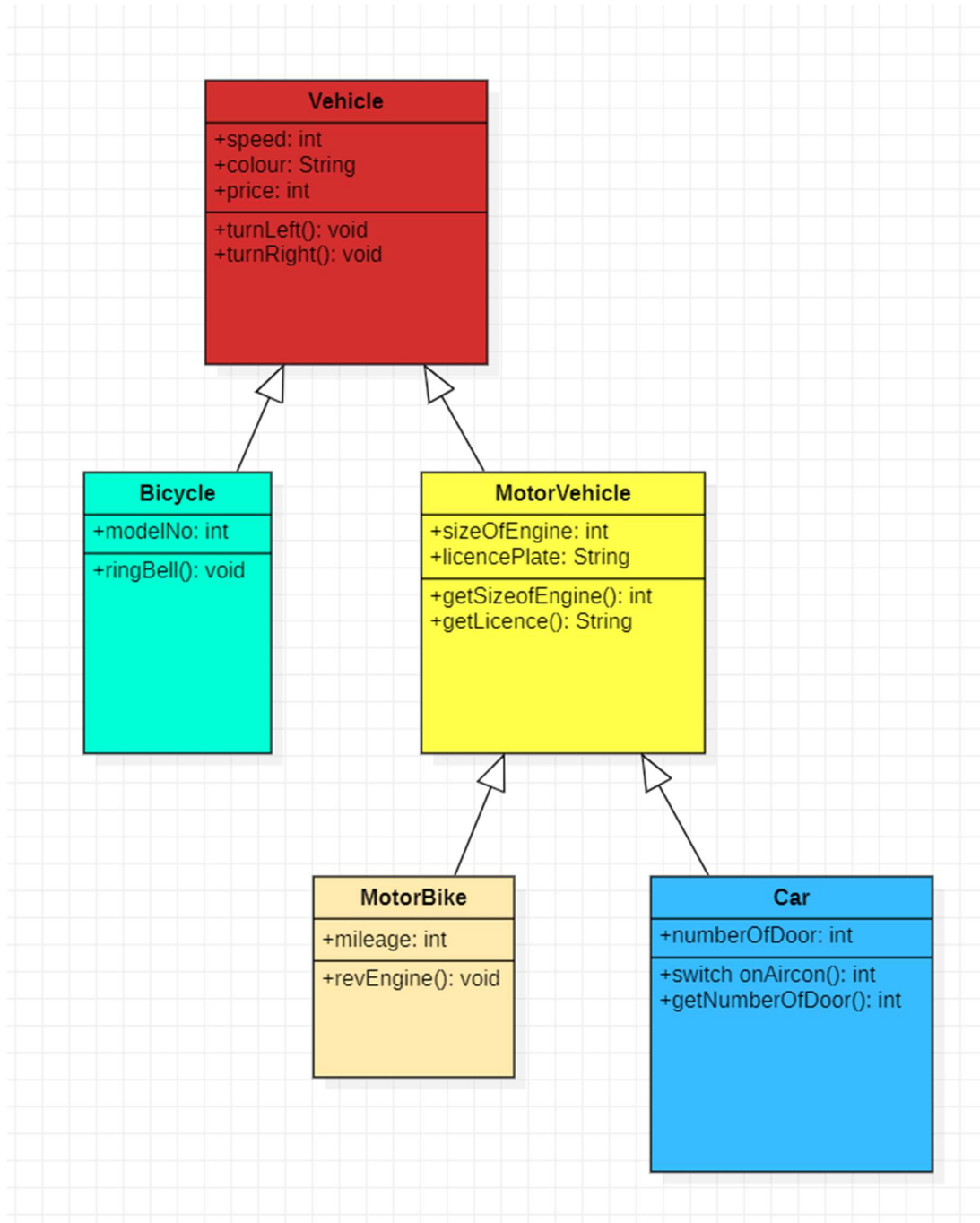
Class diagrams are commonly used during the design phase of software development to help developers understand the relationships between different components of the system and to ensure that the system is properly designed and structured.

Diagram: -

I have made a class Diagram of a Vehicle organisation.
In this, I have made Five classes:

1. Vehicle
2. Bicycle
3. Motor vehicle
4. Motor Bike
5. Car

Output: - Using StarUML.

Vehicle

+speed: int
+colour: String
+price: int

+turnLeft(): void
+turnRight(): void

Bicycle

+modelNo: int

+ringBell(): void

MotorVehicle

+sizeOfEngine: int
+licencePlate: String

+getSizeofEngine(): int
+getLicence(): String

MotorBike

+mileage: int

+revEngine(): void

Car

+numberOfDoor: int

+switch onAircon(): int
+getNumberOfDoor(): int