The University of Azad Jammu and Kashmir,Muzaffarabad

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Instructor	Engr. Awais Rathore
Assignment	01
Subject	Object Oriented Programming

UML Diagram of Single Inheritance

BankAccount

-accountHolder : string

-balance : double

- -

+ BankAccount(name: string,
initialBalance: double)

+ deposit(amount: double): void

+ withdraw(amount: double): void

+ getBalance(): double

+ getAccountHolder(): string

SavingAccount

- interestRate: double

- -

+ SavingsAccount(name: string,
initialBalance: double, rate: double)

+ addInterest(): void
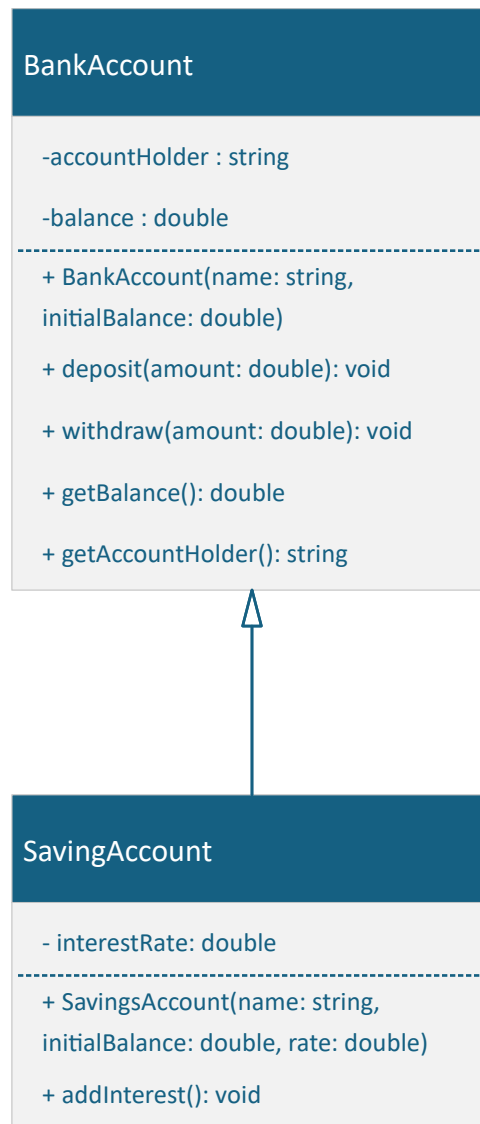
UML Diagram of Multiple Inheritance

Camera

+ capturePhoto()

+ recordVideo()

MusicPlayer

+ playMusic()

+ pauseMusic()

SmartPhone

+ makeCall()

+ sendText()
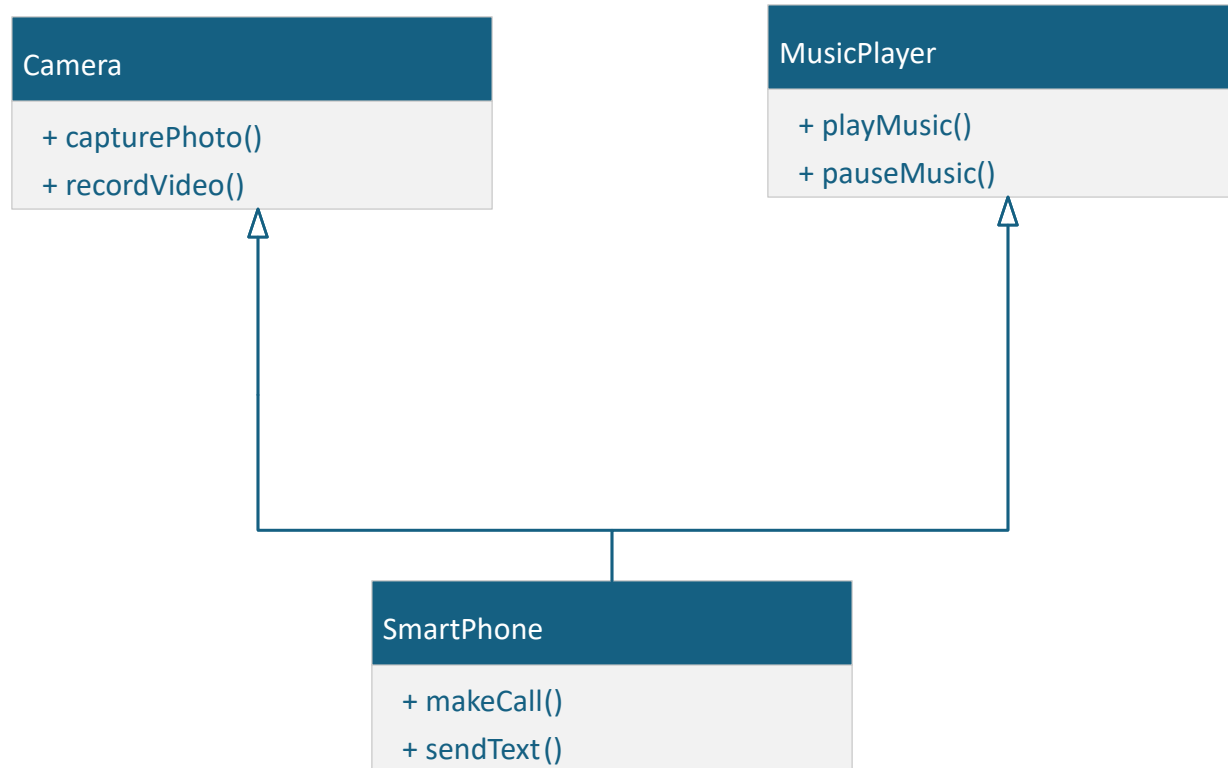
UML Diagram of Multilevel Inheritance

Vehicle

+ startEngine()

+ stopEngine()

Car

+ drive()

+ honk()

ElectricCar

+ chargeBattery()

+ showBatteryStatus()
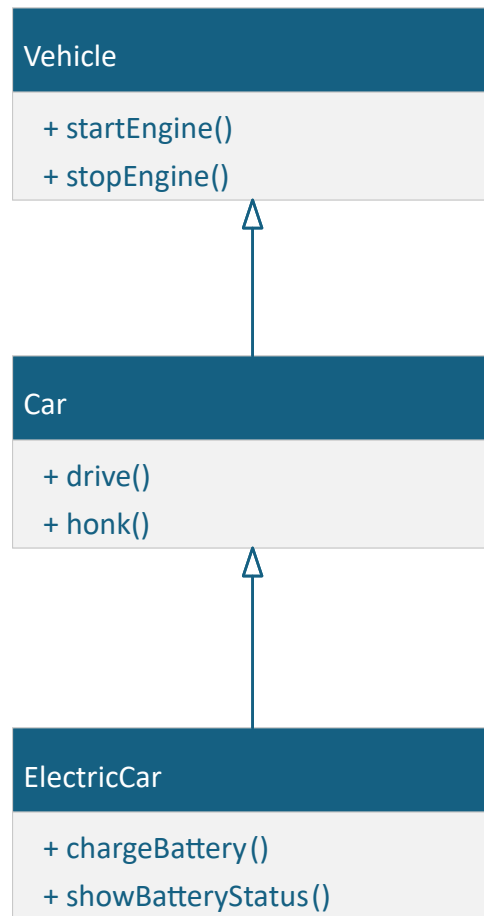
UML Diagram of Hierarchical Inheritance

Vehicle

+startEngine()

Car

+openTrunk()

Bike

+kickStart()

Truck

+loadCargo()
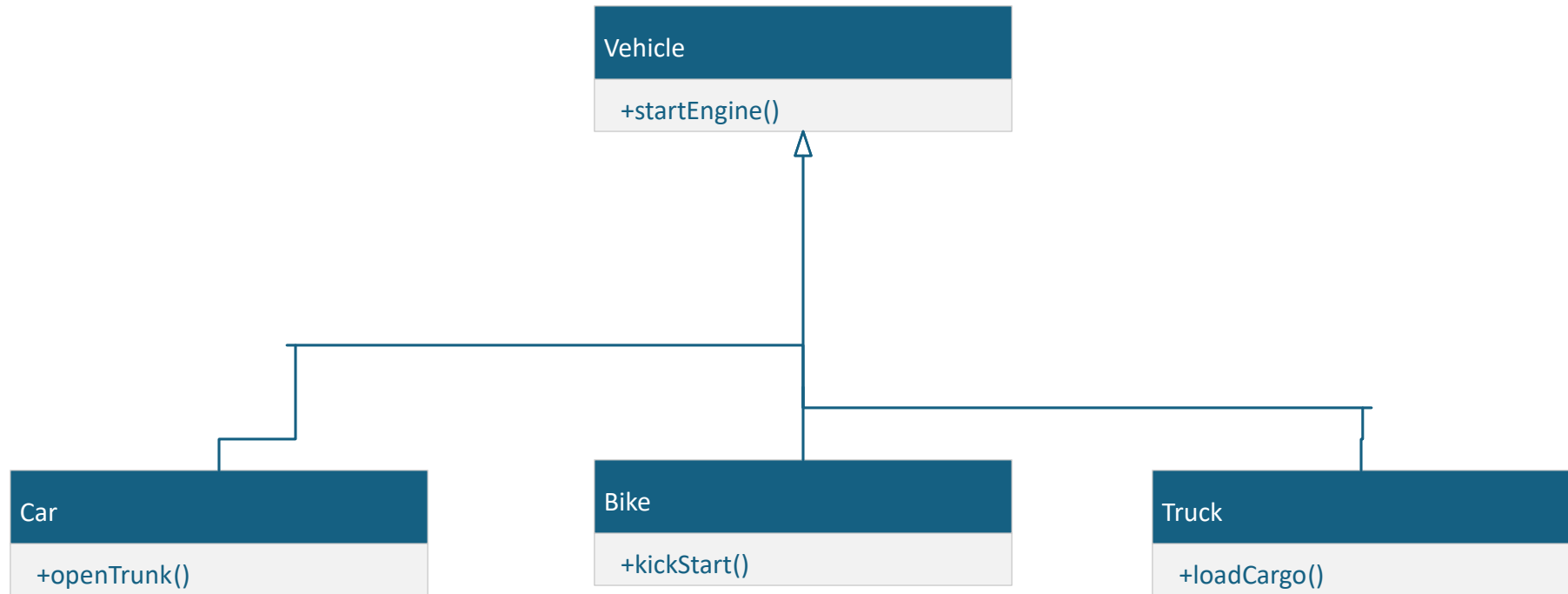
UML Diagram of Hybrid Inheritance (Diamond Problem)

Person

+showIdentity()

Teacher

+teach()

Student

+study()

TeachingAssistant

+assist()
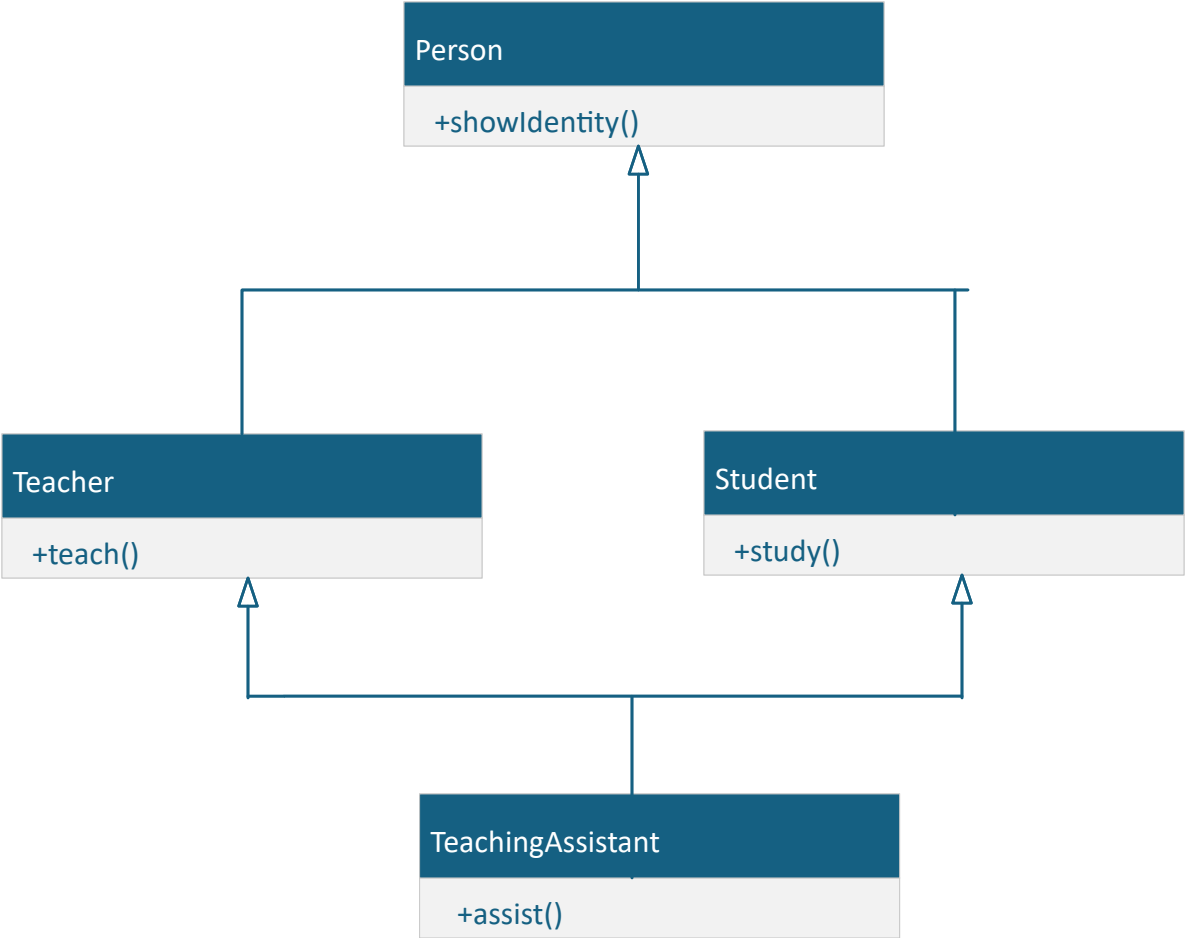
UML Diagram of Hybrid Inheritance (Virtual Inheritance)

Person

+showIdentity()

Teacher

+teach()

Student

+study()

TeachingAssistant

+assist()