Software Development Lab – OOP Practice Tasks

Task 3

Define a class with the following description:

Private Members:
• StudentName (string)
• StudentID (int)
• Marks (float)
• AttendancePercentage (float)
• A member function getGrade() to return student grade based on criteria below

Marks	Attendance	Grade
≥ 80	≥ 75%	A
≥ 80	< 75%	B
60 – 79	≥ 75%	B
60 – 79	< 75%	C
< 60	Any	F

Public Members:
• A constructor to initialize all data members
• Getter and setter methods
• A function Display() to show student information and grade

Task 4

Define a class with the following description:

Private Members:
• VehicleNumber (string)
• VehicleType (string – Car/Bike/Bus)
• HoursParked (int)
• ParkingFee (float)
• A member function calculateFee() based on criteria below

Vehicle Type	Hours Parked	Fee
Bike	≤ 2	50
Bike	> 2	50 + 20 per extra hour
Car	≤ 2	100
Car	> 2	100 + 50 per extra hour
Bus	Any	300 + 100 per hour

Public Members:
• A constructor to initialize vehicle details
• Setter and getter methods
• A function DisplayBill() to show vehicle info and total parking fee