

COP2250 Assignment 5

Purpose of exercise:

To understand and implement the selection constructs:

- (a) The if/else construct,
- (b) The switch,

As they pertain to the Java programming language.

Assignment:

Write a Java program that can be used to calculate and notify violators of the fines and/consequences for road traffic breaches as shown in the schedule below.

Non-Moving Violation		
•	No driver's license	\$25.00
•	Expired tag	\$20.00
•	No registration	\$20.00
•	No insurance	\$10.00
Moving Violation		
•	Speeding violation or speeding in construction zone	
	Miles over the Speed Limit	
○	1 – 5 MPH	Warning
○	6 – 9 MPH	\$130.00
○	10 – 14 MPH	\$205.00
○	15 – 19 MPH	\$405.00
○	20 – 29 MPH	\$455.00
○	30 MPH or over	\$605.00 and court appearance
•	Speeding in school zone or speeding within a toll facility	
○	1 – 5 MPH	\$155.00
○	6 – 9 MPH	\$255.00
○	10 – 14 MPH	\$305.00
○	15 – 19 MPH	\$405.00
○	20 – 29 MPH	\$455.00

The violation notice may comprise of any of the following:

- One or more of non-moving violations alone.
- Combination of non-moving violations, and one kind of moving violation for excess speeding, or speeding in construction zone, but not both.
- Combination of non-moving violations, and one kind of moving violation for speeding in school zone, or speeding in toll facility, but not both.

- One kind of moving violation only, for excess speeding, or speeding in construction zone, but not both.
- One kind of moving violation for speeding in school zone, or speeding in toll facility, but not both.

In formulating your solution:

- (a) Write a class called TrafficViolations that determines types of traffic violations.
- (b) Write a test class called TestTrafficViolations that implements the class TrafficViolations
- (c) Demonstrate knowledge of the if statement and the switch statement by using the if/else statement to determine the miles, and the switch statement for the other criteria.
- (d) You determine a suitable format for the output