

SE 333 Software Testing

Speeding ticket calculator specifications

Overview

Traffic violations in the town of Platteville are assessed based on 3 criteria:

1. Number of miles the driver was going above the speed limit
2. How recently the driver last got a ticket
3. The number of axles the offending vehicle has

The possible punishments range from a \$25 fine, all the way up to immediate arrest in some cases. The following section spells out the ticket calculation in greater detail.

Ticket calculation rules

1 - 10 MPH over the limit :

If the driver has had no tickets in the last 12 months, give a warning (\$0.0 ticket)
Otherwise, give a \$25 ticket

11 20 MPH over the limit :

If the vehicle has 2 axles, \$25 + \$5 per each MPH over the limit
If the vehicle has more than 2 axles, \$25 + \$10 per each MPH over the limit

21 MPH and more : arrest the driver

It is not valid to use the system with a speed that is not over the speed limit. Doing so will result in an exception being thrown.

A driver with no record should be treated the same as a driver with no tickets in the last 12 months.

The drivers in the system are identified with an ID whose form is "DL" + 5 digits. Calling the system with an invalid driver id will result in an exception being thrown.