

# Final Term Lab Exam

Use strategy pattern to solve the following problem.

The Baltimore Orioles Stadium Ticket Office invites software firms to bid for a project. They want to have a class library (with classes and interface) to calculate ticket sale price. Here are the rules for ticket sale at Stadium:

- Ticket sale price consists of two parts: ticket price and sale tax.
- Ticket price varies between children (age under 16 - \$10), adults (\$15) and seniors (age 65+ - \$12).

The Baltimore Orioles Stadium Ticket Office will award the project to the design that allows users to add more ticket categories and tax rate calculation changes easily.

## Task:

Implement the above scenario using the Strategy pattern in Java. Besides the library you implement, write a Java test class (with main method) that you can use to show that your design works and your design follows *Open-closed principle* - software entities (classes, modules, functions, etc.) should be open to extension and closed for modification.