# Acme Developer Test

**Instructions**: Build a system that will meet the following requirements. You may make assumptions if any requirements are ambiguous or vague but you must state the assumptions in your submission.

**Overview**:

You will be building an order calculator that will provide tax and totals. The calculator will need to account for promotions, coupons, various tax rule, etc... You may assume that the database and data-access is already developed and may mock the data-access system. No UI elements will be built for this test.

**Main Business Entities**:

* Order: A set of products purchased by a customer.
* Product: A specific item a customer may purchase.
* Coupon: A discount for a specific product valid for a specified date range.
* Promotion: A business wide discount on all products valid for a specified date range.

\*Not all entities are listed – you may need to create additional models to complete the system.

**Business Rules**:

* Tax is calculated per state as one of the following:
  + A simple percentage of the order total.
  + A flat amount per sale.
* Products categorized as ‘Luxury Items’ are taxed at twice the normal rate in the following states
  + FL
  + NC
  + CA
* Tax is normally calculated after applying coupons and promotional discounts. However, in the following states, the tax must be calculated prior to applying the discount:
  + FL
  + NM
  + NV
* In CA, military members do not pay tax.

**Requirements**:

* Adhering to the business rules stated previously:
  + The system shall calculate the total cost of an order.
  + The system shall calculate the pre-tax cost of an order.
  + The system shall calculate the tax amount of an order.

**Deliverables**:

* A .NET solution (you may choose either C# or VB) containing the source code implementing the business rules.
* Unit tests (you may choose the unit testing framework).
* A list of assumptions made during the implementation and a relative assessment of risk associated with those assumptions.