

## Exercise 1

### CASE

You have to design an application for car inspections done by VTNZ testing station.

VTNZ offers many services for inspections. Different service types and prices apply for car and truck inspections. For car inspections, the service type and service price are given in Table 1.

Table 1

Service Type	Service Price
WoF inspection	\$ 50.00
Modified vehicle check-up	\$ 200.00
Pre-purchase inspection	\$ 150.00
Certificate of Fitness	\$ 210.00

Complete Tutorial 3 exercise using the Singleton Pattern

VTNZ North Harbour  
3-5 Saturn Place, Albany  
Mon - Fri - 7.30am - 5pm

Select the inspection type

Request Inspection

WoF inspection	50
Modified vehicle check-up	200
Pre-purchase inspection	150
Vehicle registration	210

Details of Inspection Requested

Inspection Type Modified vehicle check-up  
Price \$200.00  
Inspection Type Vehicle registration  
Price \$210.00

Total Number of Inspections Requested

2

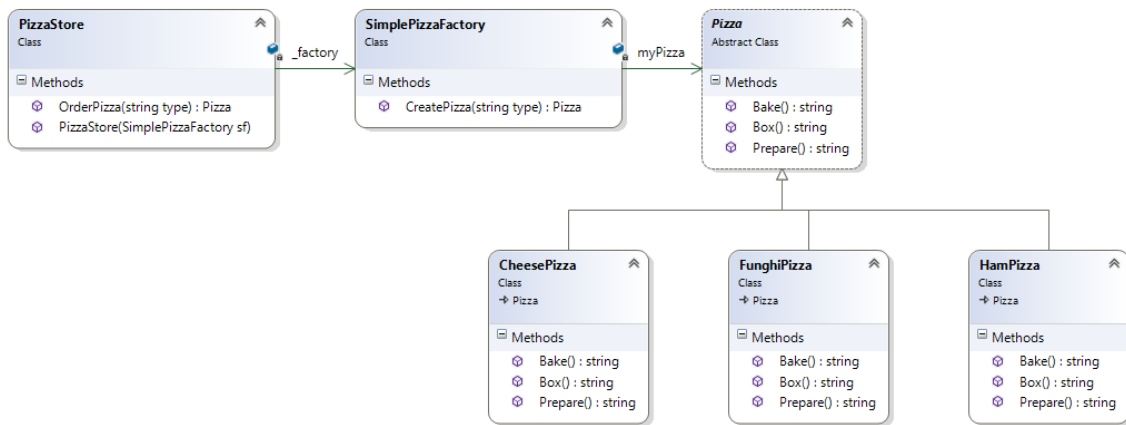
Total Price for all Inspections Requested

\$410.00

## Exercise 2

Refer to the Simple Pizza Factory exercise done in Class (i.e., chapter 4 of “Head First Design Patterns”). In the next lecture, we will extend this exercise to understand Factory Pattern and Abstract Factory Pattern (rather heavy duty concepts). But first, please make yourself familiar with the Simple Factory programming idiom.

## Make a simple application in .NET



The screenshot shows the initial state of the 'Form1' application window titled 'PIZZA STORE'. It contains a label 'What type of Pizza do you want' next to a text box labeled 'lstPizza'. Below the text box is an 'Order Here' button. At the bottom of the window is a button labeled 'For Home Delivery Click here'.

The screenshot shows the 'Form1' application window after a selection. The 'lstPizza' text box now displays a list of pizza types: 'ham', 'funghi', and 'cheese'. The 'Order Here' button is highlighted with a blue border. Below the button, a status area displays the following text: 'I am preparing a HAM pizza', 'I am baking a HAM pizza', and 'I am boxing a HAM pizza'. The 'For Home Delivery Click here' button remains at the bottom.

