**Inheritance Program #1: Pizza Delivery**

Create a class name Pizza with the following private data: a string for size (small, medium, large); a string type (classic, deep dish, thin crust); a vector of strings for toppings; and a double for price.

Include accessor functions for all private data.

Include a private function that will calculate the price of your pizza: small is $10.00, medium is $14.00, and large is $17.00. Each topping costs $2.00.

Include a constructor that requires arguments for size, type, and the vector of toppings. Your constructor will call your private function to calculate price.

Overload the << operator to display the pizza ordered formatting two decimal places for the price.

Create a derived class named DeliveredPizza that inherits from Pizza and contains a delivery fee, a total price, and delivery address. The delivery address is required in the constructor. The constructor will also calculate the delivery fee of $3.50 if the pizza ordered costs more than $20.00 or $5.00 for any pizza that is $20.00 or less and the total price.

Overload the << operator to display the pizza order, including the delivery fee, the total price, and the address it will be delivered to. Be sure to format two decimal places for the price.

Your main function will contain an array of topping selections: "Pepperoni", "Mushrooms", "Onions", "Green Pepper", "Tomatoes", "Jalapenos".

You will write a function that uses references that will ask the user for the pizza size, the crust type, and what toppings they would like (see output).

You will then ask if they want pick-up or delivery. If they want delivery, ask for their address.

Create the appropriate pizza and use the overloaded insertion operator to display the details of their pizza.

**Don’t forget data validation!**

**Sample Output #1:**

What size pizza would you like to order?

1 - small

2 - Medium

3 - Large

----> 1

What type of crust would you like to order?

1 - Classic

2 - Deep Dish

3 - Thin Crust

----> 2

Choose from the following toppings or 0 to quit

1: Pepperoni

2: Mushrooms

3: Onions

4: Green Pepper

5: Tomatoes

6: Jalapenos

----> 1

Choose from the following toppings or 0 to quit

1: Pepperoni

2: Mushrooms

3: Onions

4: Green Pepper

5: Tomatoes

6: Jalapenos

----> 0

Would you like 1 - pick up or 2 - delivery? 1

You ordered a Small Deep Dish with Pepperoni

Pizza Price: $ 12.00

**Sample Output #2:**

What size pizza would you like to order?

1 - small

2 - Medium

3 - Large

----> 3

What type of crust would you like to order?

1 - Classic

2 - Deep Dish

3 - Thin Crust

----> 3

Choose from the following toppings or 0 to quit

1: Pepperoni

2: Mushrooms

3: Onions

4: Green Pepper

5: Tomatoes

6: Jalapenos

----> 1

Choose from the following toppings or 0 to quit

1: Pepperoni

2: Mushrooms

3: Onions

4: Green Pepper

5: Tomatoes

6: Jalapenos

----> 2

Choose from the following toppings or 0 to quit

1: Pepperoni

2: Mushrooms

3: Onions

4: Green Pepper

5: Tomatoes

6: Jalapenos

----> 3

Choose from the following toppings or 0 to quit

1: Pepperoni

2: Mushrooms

3: Onions

4: Green Pepper

5: Tomatoes

6: Jalapenos

----> 6

Choose from the following toppings or 0 to quit

1: Pepperoni

2: Mushrooms

3: Onions

4: Green Pepper

5: Tomatoes

6: Jalapenos

----> 0

Would you like 1 - pick up or 2 - delivery? 2

Please enter your address:

123 Oak Street, Dearborn, MI 48128

You ordered a Large Thin Crust with Pepperoni Mushrooms Onions Jalapenos

Pizza Price: $ 25.00

Delivery Fee: $ 3.50

Total Price: $ 28.50

Delivered to: 123 Oak Street, Dearborn, MI 48128