Implement a class called PiggyBank that will be used to represent a collection of coins.

Data Members

The PiggyBank class should contain four private data members. They are:

- an integer to hold the number of nickels in the piggy bank
- an integer to hold the number of quarters in the piggy bank
- a symbolic constant of type double that represents the value of a single nickel ($0.05)
- a symbolic constant of type double that represents the value of a single quarter ($0.25)

Constructor

The default constructor for the PiggyBank class takes no arguments. It simply initializes the 2 integer data members to 0.

Methods

void printBank()

This method prints the contents of a PiggyBank object. It takes no arguments and returns nothing. It should print the contents of the object on a single line:

```
Nickels:   7    Quarters:   9
```

void printBankValue()

This method prints the value of a PiggyBank object. It takes no arguments and returns nothing. It should print the contents of the object in the format:

```
$2.60
```

void emptyBank()

This method sets a PiggyBank object so that it no longer contains any money. It takes no arguments and returns nothing. It should simply initialize each of the integer data members to 0.

void addCoins(int more_nickels, int more_quarters)

This method will add coins to a PiggyBank object. It takes two integer arguments and returns nothing. The arguments passed to this method are the number of nickels and quarters to add to the PiggyBank object.

Before adding a value to a data member, verify that the value is not negative. If it is not negative, add the value to the appropriate data member. If the value is negative, print an error message. Think about calling the add methods described below.

void addNickels(int more_nickels)

This method will add nickels to a PiggyBank object. It takes one integer argument and returns nothing. The argument passed to this method is the number of nickels to add to the PiggyBank object.

Before adding a value to the nickels data member, verify that that the passed in value is not negative. If it is not negative, add the value to the nickels data member. If the value is negative, print an error message and do not change the nickels data member.

void addPennies(int more_quarters)

This method will add quarters to a PiggyBank object. It takes one integer argument and returns nothing. The argument passed to this method is the number of quarters to add to the PiggyBank object.

Before adding a value to the quarters data member, verify that that the passed in value is not negative. If it is not negative, add the value to the quarters data member. If the value is negative, print an error message and do not change the quarters data member.

double calcPiggyBankValue()

This method calculates and returns the value (in dollars and cents) of a PiggyBank object. It takes no arguments and returns a double.

For example, if the current PiggyBank object contains 3 nickels and 4 quarters, then this method should return the value 1.15.

This method will be used to help in the coding of the printBankValue method. It will never be called by anything other than members of the PiggyBank class, therefore ***it is implemented as a private method***.