**Homework 2 Modules, Parameters, Functions, Classes and Applications**

**#1 Wood Trim, Inc.**

Module Main()

Declare Real length

Declare Real price

Display "Enter total trim lenght in feet"

Set lenght=user input

Display "Enter the price of one foot of trim"

Set price=user input

Call printTrimCost (lenght,price)

Module pringTrimCost(Real length, Real price)

Constant Real salesTax=0.06

Declare Real subtotal

Declare Real total

Display lenth

Display price

Calculate subtotal= lenght\*price

Calculate total= subtotal\*salesTax +subtotal

Display subtotal

Display total

End Module

**#2 The Showy Shiny Shoe Store**

***Shoes***

* style: String
* color: String
* size: Real\

+Shoes()

+Shoes(String st, String cl, Real sz)

+setStyle(String st)

+setColor(String cl)

+setSize(Real sz)

+String getStyle()

+String getColor()

+String getSize()

+displayShoeInfo()

Class Shoes

// Field declaration

Private String style

Private String color

Pricate Real size

// Constructor Default

Public Module Shoes()

Set style="unset"

Set color="unset"

Set size= 0

End Module

//Constructor

Public Module Shoes(String st, String cl, Real sz)

Set style=st

Set color=cl

Set size=sz

End Module

// Mutator methods

Public Module setStyle(String st)

Set style=st

End Module

Public Module setColor(String cl)

Set color=cl

End Module

Public Module setSize(String sz)

Set size=sz

End Module

//Accessor methods

Public Function String getStyle()

Return style

End Function

Public Function String getColor()

Return color

End Function

Public Function String getSize()

Return size

End Function

//Display all data about the shoes

Public Module displayShoeInfo()

Display style

Display color

Display size

End Module

Module main()

//Instantiates two objects of the Shoes class.

//The first object should be named fancyShoes and use the default constructor.

Declare Shoes fancyShoes

Set fancyShoes = New Shoes()

//The second object should be named athleticShoes and use the second constructor to initialize the style to

//"running", the color to "white", and the size to 8.5.

Declare Shoes athleticShoes

Set athleticShoes = New Shoes("running", "white", 8.5)

//A call to set the color of the fancyShoes to "red".

fancyShoes.setColor("red")

//A call to set the style of the fancyShoes to “dancing”.

fancyShoes.setStyle("dancing”)

//A call to set the size of the fancyShoes to 9.5.

fancyShoes.setSize(9.5)

//A statement that displays the style of the fancyShoes, using the appropriate method call.

Display fancyShoes.getStyle()

//A call to change the color of the athleticShoes to "black".

athleticShoes.setColor("black")

//A statement that displays the style of the fancyShoes, using the appropriate method call.

Display fancyShoes.getStyle()

//A call for the athleticShoes object to the method that displays all the information about the shoes.

athleticShoes.displayShoeInfo()

End Module

End Class