**Homework 3 Modules, Decisions and Functions**

**#6 Maximum of Two Values**

Class Ex6

// Function max that accepts two integers and

//returns greater of the two

Function Integer max(int x, int y)

if (x > y) {

return x;

} else return y;

End Function

Module main()

Display "Enter a number"

//get first number

int x= Input number

Display “Enter second number”

//get second number

int y= Input number

//call Function max and get greater of the two numbers

int maxValue=max(x,y)

Display "this is the greater number of the two: "+ maxValue

End Module

End Class

***InsuranceApp***

+ Main()

+ checkAccident(Policy Holder ph)

***PolicyHolder***

* policy number: Integer
* customer age: Integer
* number of accidents: Integer

+PolicyHolder()

+PolicyHolder(pn int, ca int, na int)

+set PolicyNumber(int pn)

+set CustomerAge(int ca)

+set NumberOfAccidents(int na)

+int getPolicyNumber()

+int getCustomerAge()

+int getNumberOfAccidents()

+displayPolicyHolderData()

**Homework 3 #2**

Class PolicyHolder

//Field declaration

private int policyNumber;

private int customerAge;

private int numberOfAccidents;

//Overloaded Constructor

Public Module PolicyHolder(int policyNumber, int customerAge, int numberOfAccidents)

Set policyNumber = policyNumber;

//If statement to set range of customers age between 14 and 125

If (customerAge > 14 && customerAge <= 125) Then

customerAge = customerAge;

Else

Display "error:age must be between 14 and 125"

Set customerAge = 0;

End If

Set customerAge =customerAge;

Set numberOfAccidents =numberOfAccidents;

End Module

//Default Constructor

Public Module PolicyHolder()

// initialize fields to none existing values

End Module

//Accessor methods

Public Function int getPolicyNumber()

return policyNumber

End Function

Public Function int getCustomerAge()

return customerAge

End Function

Public Function int getNumberOfAccidents()

return numberOfAccidents

End Function

//Mutator methods

Public Module void setPolicyNumber(int policyNumber)

Set policyNumber = policyNumber

End Module

Public Module void setCustomerAge(int customerAge)

If (customerAge>14&&customerAge<=125) Then

Set customerAge=customerAge

Else

customerAge = 0

End If

End Module

Public Module void setNumberOfAccidents(int numberOfAccidents)

Set numberOfAccidents = numberOfAccidents;

End Module

//Display all fields

Public Module displayPolicyHolder ()

Display policyNumber

Dispay customerAge

Display numberOfAccidents

End Module

End Class

Class InsuranceApp

Module Main ()

//Create and initialize a PolicyHolder object using the default constructor, naming it //newPolicyHolder

Declare PolicyHolder newPolicyHolder= new PolicyHolder();

newPolicyHolder.setCustomerAge(15);

newPolicyHolder.setPolicyNumber(12345);

newPolicyHolder.setNumberOfAccidents(1);

Declare PolicyHolder ph2= new PolicyHolder(142, 2,0);

Declare PolicyHolder ph3= new PolicyHolder(345, 34,3);

checkAccident(newPolicyHolder);

checkAccident(ph2);

checkAccident(ph3);

Public Module void checkAccident(PolicyHolder ph)

if ph.getCustomerAge()>35)&& (ph.getNumberOfAccidents()<=1)

ph.displayPolicyHolder(); Display PolicyHolder

End Module

End Main

End Class