**Package lab4**

|  |  |
| --- | --- |
| **Class Summary** | |
| **Class** | **Description** |
| [**Coin**](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\Coin.html) | Creates Coins to store value |
| [**CoinSet**](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\CoinSet.html) | Stores multiple coins |
| [**Main**](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\Main.html) |  |
| [**Product**](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\Product.html) | Stores the products of the vending machine |
| [**VendingMachine**](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\VendingMachine.html) | Stores multiple products and cash in the machine |
| [**VendingMachineMenu**](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\VendingMachineMenu.html) | Menu for our vending machine |

Package [lab4](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\package-summary.html)

## Class Coin

* java.lang.Object
  + lab4.Coin
* public class Coin

extends java.lang.Object

Creates Coins to store value

Author:

alexb

* + ***Constructor Summary***

|  |  |
| --- | --- |
| **Constructors** | |
| **Constructor** | **Description** |
| [Coin](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\Coin.html#%3Cinit%3E())() | Default coin constructor |
| [Coin](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\Coin.html#%3Cinit%3E(double,java.lang.String))​(double nValue, java.lang.String nName) | Normal coin constructor |

* + ***Method Summary***

All MethodsInstance MethodsConcrete Methods

|  |  |  |
| --- | --- | --- |
| **Modifier and Type** | **Method** | **Description** |
| double | [getValue](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\Coin.html#getValue())() | Returns coin's value |
| java.lang.String | [toString](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\Coin.html#toString())() | Prints out coin name and value |

* + - **Methods inherited from class java.lang.Object**

equals, getClass, hashCode, notify, notifyAll, wait, wait, wait

* + ***Constructor Detail***
    - **Coin**

public Coin()

Default coin constructor

* + - **Coin**
    - public Coin​(double nValue,

java.lang.String nName)

Normal coin constructor

Parameters:

nValue - Worth of coin

nName - Name of coin

* + ***Method Detail***
    - **toString**

public java.lang.String toString()

Prints out coin name and value

Overrides:

toString in class java.lang.Object

* + - **getValue**

public double getValue()

Returns coin's value

Returns:

Return value

Package [lab4](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\package-summary.html)

## Class CoinSet

* java.lang.Object
  + lab4.CoinSet
* public class CoinSet

extends java.lang.Object

Stores multiple coins

Author:

alexb

* + ***Constructor Summary***

|  |  |
| --- | --- |
| **Constructors** | |
| **Constructor** | **Description** |
| [CoinSet](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\CoinSet.html#%3Cinit%3E())() | Default coin set constructor |

* + ***Method Summary***

All MethodsInstance MethodsConcrete Methods

|  |  |  |
| --- | --- | --- |
| **Modifier and Type** | **Method** | **Description** |
| void | [addCoin](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\CoinSet.html#addCoin(lab4.Coin))​([**Coin**](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\Coin.html) c) | Adds a coin to the list |
| void | [addCoins](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\CoinSet.html#addCoins(lab4.CoinSet))​(**[CoinSet](file:///C:\\Users\\alexb\\eclipse-workspace\\Lab4\\doc\\lab4\\CoinSet.html" \o "class in lab4)** manyCoins) | Adds all coins from a list to another list |
| int | [getSize](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\CoinSet.html#getSize())() | Returns size of coin set |
| double | [getValue](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\CoinSet.html#getValue(lab4.CoinSet))​(**[CoinSet](file:///C:\\Users\\alexb\\eclipse-workspace\\Lab4\\doc\\lab4\\CoinSet.html" \o "class in lab4)** userCoins) | Returns values of all the coins totaled |
| void | [removeAllCoins](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\CoinSet.html#removeAllCoins(lab4.CoinSet))​(**[CoinSet](file:///C:\\Users\\alexb\\eclipse-workspace\\Lab4\\doc\\lab4\\CoinSet.html" \o "class in lab4)** set) | Clears all the coins from a coin set |

* + - **Methods inherited from class java.lang.Object**

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

* + ***Constructor Detail***
    - **CoinSet**

public CoinSet()

Default coin set constructor

* + ***Method Detail***
    - **getSize**

public int getSize()

Returns size of coin set

Returns:

Returns size of set

* + - **addCoin**

public void addCoin​([Coin](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\Coin.html) c)

Adds a coin to the list

Parameters:

c - Coin to be added

* + - **addCoins**

public void addCoins​([CoinSet](file:///C:\\Users\\alexb\\eclipse-workspace\\Lab4\\doc\\lab4\\CoinSet.html" \o "class in lab4) manyCoins)

Adds all coins from a list to another list

Parameters:

manyCoins - A set of other coins

* + - **getValue**

public double getValue​([CoinSet](file:///C:\\Users\\alexb\\eclipse-workspace\\Lab4\\doc\\lab4\\CoinSet.html" \o "class in lab4) userCoins)

Returns values of all the coins totaled

Parameters:

userCoins - List of coins being added

Returns:

Returns the total value of the coins

* + - **removeAllCoins**

public void removeAllCoins​([CoinSet](file:///C:\\Users\\alexb\\eclipse-workspace\\Lab4\\doc\\lab4\\CoinSet.html" \o "class in lab4) set)

Clears all the coins from a coin set

Parameters:

set - The set of coins to be cleared

Package [lab4](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\package-summary.html)

## Class Product

* java.lang.Object
  + lab4.Product
* public class Product

extends java.lang.Object

Stores the products of the vending machine

Author:

alexb

* + ***Constructor Summary***

|  |  |
| --- | --- |
| **Constructors** | |
| **Constructor** | **Description** |
| [Product](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\Product.html#%3Cinit%3E())() | Default product constructor |
| [Product](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\Product.html#%3Cinit%3E(java.lang.String,double))​(java.lang.String nDescription, double nPrice) | Regular product constructor |

* + ***Method Summary***

All MethodsInstance MethodsConcrete Methods

|  |  |  |
| --- | --- | --- |
| **Modifier and Type** | **Method** | **Description** |
| boolean | [equals](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\Product.html#equals(lab4.Product))​([**Product**](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\Product.html) other) | Compares two products to see if they are equal |
| double | [getPrice](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\Product.html#getPrice())() | Returns product price |
| java.lang.String | [getSnack](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\Product.html#getSnack())() | Returns product name |
| void | [setPrice](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\Product.html#setPrice(double))​(double nPrice) | Set product price |
| void | [setSnack](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\Product.html#setSnack(java.lang.String))​(java.lang.String nDescription) | Set product name |
| java.lang.String | [toString](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\Product.html#toString())() | Prints out product name and price |

* + - **Methods inherited from class java.lang.Object**

equals, getClass, hashCode, notify, notifyAll, wait, wait, wait

* + ***Constructor Detail***
    - **Product**

public Product()

Default product constructor

* + - **Product**
    - public Product​(java.lang.String nDescription,

double nPrice)

Regular product constructor

Parameters:

nDescription - Name of product

nPrice - Cost of product

* + ***Method Detail***
    - **getSnack**

public java.lang.String getSnack()

Returns product name

Returns:

Returns product name

* + - **setSnack**

public void setSnack​(java.lang.String nDescription)

Set product name

Parameters:

nDescription - Product name

* + - **getPrice**

public double getPrice()

Returns product price

Returns:

Return product price

* + - **setPrice**

public void setPrice​(double nPrice)

Set product price

Parameters:

nPrice - Product price

* + - **equals**

public boolean equals​([Product](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\Product.html) other)

Compares two products to see if they are equal

Parameters:

other - Product to be compared

Returns:

True if equal

* + - **toString**

public java.lang.String toString()

Prints out product name and price

Overrides:

toString in class java.lang.Object

Package [lab4](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\package-summary.html)

## Class VendingMachine

* java.lang.Object
  + lab4.VendingMachine
* public class VendingMachine

extends java.lang.Object

Stores multiple products and cash in the machine

Author:

alexb

* + ***Field Summary***

|  |  |  |
| --- | --- | --- |
| **Fields** | | |
| **Modifier and Type** | **Field** | **Description** |
| [**CoinSet**](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\CoinSet.html) | [coins](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\VendingMachine.html#coins) |  |
| [**CoinSet**](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\CoinSet.html) | [currentCoins](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\VendingMachine.html#currentCoins) |  |

* + ***Constructor Summary***

|  |  |
| --- | --- |
| **Constructors** | |
| **Constructor** | **Description** |
| [VendingMachine](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\VendingMachine.html#%3Cinit%3E())() | Default vending machine constructor |

* + ***Method Summary***

All MethodsInstance MethodsConcrete Methods

|  |  |  |
| --- | --- | --- |
| **Modifier and Type** | **Method** | **Description** |
| void | [addProduct](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\VendingMachine.html#addProduct(lab4.Product,int))​([**Product**](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\Product.html) p, int quantity) | Add a new product to the vending machine |
| [**Product**](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\Product.html) | [buyProduct](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\VendingMachine.html#buyProduct(lab4.Product))​([**Product**](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\Product.html) p) | Returns a product if you have enough cash |

* + - **Methods inherited from class java.lang.Object**

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

* + ***Field Detail***
    - **coins**

public [CoinSet](file:///C:\\Users\\alexb\\eclipse-workspace\\Lab4\\doc\\lab4\\CoinSet.html" \o "class in lab4) coins

* + - **currentCoins**

public [CoinSet](file:///C:\\Users\\alexb\\eclipse-workspace\\Lab4\\doc\\lab4\\CoinSet.html" \o "class in lab4) currentCoins

* + ***Constructor Detail***
    - **VendingMachine**

public VendingMachine()

Default vending machine constructor

* + ***Method Detail***
    - **addProduct**

public void addProduct​([Product](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\Product.html) p, int quantity)

Add a new product to the vending machine

Parameters:

p - The product to add

quantity - How much of the product to add

* + - **buyProduct**

public [Product](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\Product.html) buyProduct​([Product](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\Product.html) p) throws [PriceException](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\PriceException.html)

Returns a product if you have enough cash

Parameters:

p - Product to buy

Returns:

Return the product you bought

Throws:

[PriceException](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\PriceException.html) - Not enough cash to buy it

Package [lab4](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\package-summary.html)

## Class VendingMachineMenu

* java.lang.Object
  + lab4.VendingMachineMenu
* public class VendingMachineMenu

extends java.lang.Object

Menu for our vending machine

Author:

alexb

* + ***Constructor Summary***

|  |  |
| --- | --- |
| **Constructors** | |
| **Constructor** | **Description** |
| [VendingMachineMenu](file:///C:\Users\alexb\eclipse-workspace\Lab4\doc\lab4\VendingMachineMenu.html#%3Cinit%3E())() |  |

* + ***Method Summary***
    - **Methods inherited from class java.lang.Object**

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

* + ***Constructor Detail***
    - **VendingMachineMenu**

public VendingMachineMenu()