

Java Examples

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/*Author: Stacey Pegram

Description: This module initializes (Constant) objects for a public class ("Book). Private instances of the objects are declared and a constructor is used to establish how the objects will be used. Note the arguments(or details used) for each object are correlated with the constructor for the Book object [the order of nookTitle, and year (string data types) and the order of the details for the constant objects are respective]. */

```
public enum Book
{
//declares six enum constants
JHTP( "Java How to Program", "2012" ),
CHTP( "C How to Program", "2007" ),
IW3HTP( "Internet & World Wide Web How to Program", "2008" ),
CPPHTP( "C++ How to {Program", "2012" ),
VBHTP( "Visual Basic 2010 How to Program", "2011" ),
CSHARPHTP( "Visual C# 2010 How to Program", "2011" );
//instance variables
private final String title;
private final String copyrightYear;
//constructor
Book( String nookTitle, String year )
{
title = bookTitle;
copyrightYear = year;
}
//methods
public String getTitle()
{
return title;
}
public String getCopyrightYear()
{
return copyrightYear;
}
}
```



/*Author: Stacey Pegram

Description: This program initializes a courseName object and creates a constructor for the object, Set and Get methods are used to set and retrieve CourseName values, the Set method is called when a user is prompted to enter a course name and the Getmethod is called when the Course name is being displayed (printed to the screen).While the grade value entered does not equal negative one the grade is added to the total of the grades.*/

```
import java.util.Scanner; //enables use of class Scanner
public class GradeBook
{
    private String courseName;
    public GradeBook( String name ) //constructor
    {
        courseName = name; //initialize courseName
    }
    public void setCourseName( String name ) //set method
    {
        courseName = name;
    }
    public String getCourseName()
    //get method
    {
        return courseName; //retrieve courseName
    }
    public void displayMessage()
    {
        Scanner input = new Scanner(System.in);
        System.out.printf( "Enter course name:",setCourseName());
        //call getCourseName method and display retrieved courseName along with
        message
        System.out.printf( "Welcome to the grade book for\n%s!\n\n",
        getCourseName() );
    }
    public void determineClassAverage()
    {
        Scanner input = new Scanner(System.in); //obtains input from command window
        int total;
        int gradeCounter;
        int grade;
        double average;
        total = 0; //total initialized to zero
        gradeCounter = 0;
        System.out.print( "Enter grade or -1 to quit: " );
        grade = input.nextInt();
```



/*Author: Stacey Pegram

Description: This program demonstrates accepting user input from a keyboard with the use of the java.util.Scanner class. Three individual values (with a data type of Double) are read and the number with the highest value is found by using the maximum method/function*/

```
import java.util.Scanner;
public class MaximumFinder
{
//prompt user for three values and determine max value from numbers input
public static void main( String[] args )
{
//create Scanner in order to accept input from keyboard
Scanner input = new Scanner( System.in );
//prompt user for three values
System.out.print(
"Enter three floating-point values separated by spaces: ");
double number1 = input.nextDouble(); //read first double
double number2 = input.nextDouble(); //read second double
double number3 = input.nextDouble(); //read third double
//determine the max value
double result = maximum( number1, number2, number3 );
//display max value
System.out.println("Maximum is: " + result );
}
//end main
public static double maximum( double x, double y, double z )
{
double maximumValue = x; //designate x as initially being largest
//determine whether y is greater than maximumValue
if ( y > maximumValue )
maximumValue = y;
//determine if z is greater than maximumValue
if ( z > maximumValue )
maximumValue = z; //maximum value becomes z value if this is the case
return maximumValue;
}}
```



/*Author: Stacey Pegram

Description: This program demonstrates accepting user input from a keyboard and then using the value (will be used as Fahrenheit) within a formula that converts the value to a Celsius value.*/

```
import static java.lang.System.out;
import java.util.Scanner;
```

```
class TempConversion{
public static void main(String args[]) {
Scanner keyboard = new Scanner(System.in);
```

```
out.print("Enter temperature in Fahrenheit to have temperature converted to Celsius or enter a
zero to convert the normal human body temperature to Celsius: ");double inputTemp =
keyboard.nextDouble();
```

```
double defaultTemp = 98.6
```

```
if (inputTemp == 0) {double CelsiusDefault = defaultTemp - 32 * .56
out.println("Normal human body temperature converted to Celsius is:" +
CelsiusDefault)}
```

```
else {
double Celsius = inputTemp - 32 * .56
out.println("Temperature entered converted to Celsius is:" + Celsius)}
```



/*Author: Stacey Pegram

Description: This module uses the java.util.Random class from the Java library in order to generate six instances/cases of a random number being retrieved from arange between one and six*/

```
import java.util.Random;//import for randomization tasks
```

```
public class RollDie
```

```
{  
public static void main( Sting{} args )
```

```
{  
Random randomNumbers = new Random();
```

```
int frequency1 = 0; //declare variable to use for count of 1s
```

```
int frequency2 = 0;
```

```
int frequency3 = 0;
```

```
int frequency4 = 0;
```

```
int frequency5 = 0;
```

```
int frequency6 = 0;
```

```
int face; //declare integer to hold value of most recently rolled number
```

```
for ( int roll = 1; roll <= 6000000; roll++ )
```

```
{  
face = 1 + randomNumbers.nextInt(6); //face value becomes a random number between 1  
and 6
```

```
switch ( face )//deterination of case within switch based on face value
```

```
{  
case 1: //for case one, increment count of frequency1
```

```
++frequency1;
```

```
break;
```

```
case 2:
```

```
++frequency2;
```

```
break;
```

```
case 3:
```

```
++frequency3;
```

```
break;
```

```
case 4:
```

```
++frequency4;
```

```
break;
```

```
case 5:
```

```
++frequency5;
```

```
break;
```

```
case 6:
```

```
++frequency6;
```

```
break;
```

```
}}  
System.out.println( "Face\tFrequency" ); //title
```

```
System.pit.printf( "1\t%d\n2\t%d\n3\t%d\n4\t%d\n5\t%d\n6\t%d\n",  
frequency1, frequency2, frequency3, frequency4, frequency5, frequency6 );
```

```
}}
```