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Intro Programing Java

Example of program

**DisplayUnicode**

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\* To change this template, choose Tools | Templates

\* and open the template in the editor.

\*/

package displayunicode;

import javax.swing.JOptionPane;

public class DisplayUnicode {

public static void main(String[] args) {

JOptionPane.showMessageDialog(null,

"\u6B22\u8FCE \u03b1 \u03b2 \u03b3",

"\u6B22\u8FCE Welcome",

JOptionPane.INFORMATION\_MESSAGE);

}

}

**Display Time**

/\*

\* To change this template, choose Tools | Templates

\* and open the template in the editor.

\*/

package displaytime;

import java.util.Scanner;

public class DisplayTime {

public static void main(String[] args) {

Scanner input = new Scanner(System.in);

// Prompt the user for input

System.out.print("Enter an integer for seconds: ");

int seconds = input.nextInt();

int minutes = seconds / 60; // Find minutes in seconds

int remainingSeconds = seconds % 60; // Seconds remaining

System.out.println(seconds + " seconds is " + minutes +

" minutes and " + remainingSeconds + " seconds");

}

}

**Show Current Time**

/\*

\* To change this template, choose Tools | Templates

\* and open the template in the editor.

\*/

package showcurrenttime;

public class ShowCurrentTime {

public static void main(String[] args) {

// Obtain the total milliseconds since midnight, Jan 1, 1970

long totalMilliseconds = System.currentTimeMillis();

// Obtain the total seconds since midnight, Jan 1, 1970

long totalSeconds = totalMilliseconds / 1000;

// Compute the current second in the minute in the hour

long currentSecond = totalSeconds % 60;

// Obtain the total minutes

long totalMinutes = totalSeconds / 60;

// Compute the current minute in the hour

long currentMinute = totalMinutes % 60;

// Obtain the total hours

long totalHours = totalMinutes / 60;

// Compute the current hour

long currentHour = totalHours % 24;

currentHour = currentHour - 4; //Eastern Standard Time

// Display results

System.out.println("Current time is " + currentHour + ":"

+ currentMinute + ":" + currentSecond + " GMT");

}

}

**Farenheit to Celsius**

/\*

\* To change this template, choose Tools | Templates

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\*/

package fahrenheittocelsius;

import java.util.Scanner;

public class FahrenheitToCelsius {

public static void main(String[] args) {

Scanner input = new Scanner(System.in);

System.out.print("Enter a degree in Fahrenheit: ");

double fahrenheit = input.nextDouble();

// Convert Fahrenheit to Celsius

double celsius = (5.0 / 9) \* (fahrenheit - 32);

System.out.println("Fahrenheit " + fahrenheit + " is " +

celsius + " in Celsius");

}

}

**ComputeAverage**

/\*

\* To change this template, choose Tools | Templates

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\*/

package computeaverage;

import java.util.Scanner; // Scanner is in the java.util package

public class ComputeAverage {

public static void main(String[] args) {

// Create a Scanner object

Scanner input = new Scanner(System.in);

// Prompt the user to enter three numbers

System.out.print("Enter three numbers: ");

double number1 = input.nextDouble();

double number2 = input.nextDouble();

double number3 = input.nextDouble();

// Compute average

double average = (number1 + number2 + number3) / 3;

// Display result

System.out.println("The average of " + number1 + " " + number2

+ " " + number3 + " is " + average);

}

}

**ComputeArea**

/\*

\* To change this template, choose Tools | Templates

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\*/

package computearea;

public class ComputeArea {

public static void main(String[] args) {

double radius; // Declare radius

double area; // Declare area

// Assign a radius

radius = 20; // New value is radius

// Compute area

area = radius \* radius \* 3.14159;

// Display results

System.out.println("The area for the circle of radius " +

radius + " is " + area);

}

}

**ComputeLoanUsingInputDialog**

\* To change this template, choose Tools | Templates

\* and open the template in the editor.

\*/

package computeloanusinginputdialog;

import javax.swing.JOptionPane;

public class ComputeLoanUsingInputDialog {

public static void main(String[] args) {

// Enter yearly interest rate

String annualInterestRateString = JOptionPane.showInputDialog(

"Enter annual interest rate, e.g., 8.25:");

// Convert string to double

double annualInterestRate =

Double.parseDouble(annualInterestRateString);

// Obtain monthly interest rate

double monthlyInterestRate = annualInterestRate / 1200;

// Enter number of years

String numberOfYearsString = JOptionPane.showInputDialog(

"Enter number of years as an integer, \ne.g., 5:");

// Convert string to int

int numberOfYears = Integer.parseInt(numberOfYearsString);

// Enter loan amount

String loanString = JOptionPane.showInputDialog(

"Enter loan amount, e.g., 120000.95:");

// Convert string to double

double loanAmount = Double.parseDouble(loanString);

// Calculate payment

double monthlyPayment = loanAmount \* monthlyInterestRate / (1

- 1 / Math.pow(1 + monthlyInterestRate, numberOfYears \* 12));

double totalPayment = monthlyPayment \* numberOfYears \* 12;

// Format to keep two digits after the decimal point

monthlyPayment = (int)(monthlyPayment \* 100) / 100.0;

totalPayment = (int)(totalPayment \* 100) / 100.0;

// Display results

String output = "The monthly payment is $" + monthlyPayment +

"\nThe total payment is $" + totalPayment;

JOptionPane.showMessageDialog(null, output);

}

}

**ComputeChange**

\* To change this template, choose Tools | Templates

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\*/

package computechange;

import java.util.Scanner;

public class ComputeChange {

public static void main(String[] args) {

// Create a Scanner

Scanner input = new Scanner(System.in);

// Receive the amount

System.out.print(

"Enter an amount in double, for example 11.56: ");

double amount = input.nextDouble();

int remainingAmount = (int)(amount \* 100);

// Find the number of one dollars

int numberOfOneDollars = remainingAmount / 100;

remainingAmount = remainingAmount % 100;

// Find the number of quarters in the remaining amount

int numberOfQuarters = remainingAmount / 25;

remainingAmount = remainingAmount % 25;

// Find the number of dimes in the remaining amount

int numberOfDimes = remainingAmount / 10;

remainingAmount = remainingAmount % 10;

// Find the number of nickels in the remaining amount

int numberOfNickels = remainingAmount / 5;

remainingAmount = remainingAmount % 5;

// Find the number of pennies in the remaining amount

int numberOfPennies = remainingAmount;

// Display results

System.out.println("Your amount " + amount + " consists of \n" +

"\t" + numberOfOneDollars + " dollars\n" +

"\t" + numberOfQuarters + " quarters\n" +

"\t" + numberOfDimes + " dimes\n" +

"\t" + numberOfNickels + " nickels\n" +

"\t" + numberOfPennies + " pennies");

}

}

**ComputeLoan**

/\*

\* To change this template, choose Tools | Templates

\* and open the template in the editor.

\*/

package computeloan;

import java.util.Scanner;

public class ComputeLoan {

public static void main(String[] args) {

// Create a Scanner

Scanner input = new Scanner(System.in);

// Enter yearly interest rate

System.out.print("Enter yearly interest rate, for example 8.25: ");

double annualInterestRate = input.nextDouble();

// Obtain monthly interest rate

double monthlyInterestRate = annualInterestRate / 1200;

// Enter number of years

System.out.print(

"Enter number of years as an integer, for example 5: ");

int numberOfYears = input.nextInt();

// Enter loan amount

System.out.print("Enter loan amount, for example 120000.95: ");

double loanAmount = input.nextDouble();

// Calculate payment

double monthlyPayment = loanAmount \* monthlyInterestRate / (1

- 1 / Math.pow(1 + monthlyInterestRate, numberOfYears \* 12));

double totalPayment = monthlyPayment \* numberOfYears \* 12;

// Display results

System.out.println("The monthly payment is $" +

(int)(monthlyPayment \* 100) / 100.0);

System.out.println("The total payment is $" +

(int)(totalPayment \* 100) / 100.0);

}

}

**SalesTax**

/\*

\* To change this template, choose Tools | Templates

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\*/

package salestax;

import java.util.Scanner;

public class SalesTax {

public static void main(String[] args) {

Scanner input = new Scanner(System.in);

System.out.print("Enter purchase amount: ");

double purchaseAmount = input.nextDouble();

double tax = purchaseAmount \* 0.06;

System.out.println("Sales tax is " + (int)(tax \* 100) / 100.0);

}

}