//пример 1

using System;

using System.Globalization;

public class Temperature : IFormattable

{

private decimal temp;

public Temperature(decimal temperature)

{

if (temperature < -273.15m)

throw new ArgumentOutOfRangeException(String.Format("{0} is less than absolute zero.",

temperature));

this.temp = temperature;

}

public decimal Celsius

{

get { return temp; }

}

public decimal Fahrenheit

{

get { return temp \* 9 / 5 + 32; }

}

public decimal Kelvin

{

get { return temp + 273.15m; }

}

public override string ToString()

{

return this.ToString("G", CultureInfo.CurrentCulture);

}

public string ToString(string format)

{

return this.ToString(format, CultureInfo.CurrentCulture);

}

public string ToString(string format, IFormatProvider provider)

{

if (String.IsNullOrEmpty(format)) format = "G";

if (provider == null) provider = CultureInfo.CurrentCulture;

switch (format.ToUpperInvariant())

{

case "G":

case "C":

return temp.ToString("F2", provider) + " °C";

case "F":

return Fahrenheit.ToString("F2", provider) + " °F";

case "K":

return Kelvin.ToString("F2", provider) + " K";

default:

throw new FormatException(String.Format("The {0} format string is not supported.", format));

}

}

}

public class Example

{

public static void Main()

{

// Use composite formatting with format string in the format item.

Temperature temp1 = new Temperature(0);

Console.WriteLine("{0:C} (Celsius) = {0:K} (Kelvin) = {0:F} (Fahrenheit)\n", temp1);

// Use composite formatting with a format provider.

temp1 = new Temperature(-40);

Console.WriteLine(String.Format(CultureInfo.CurrentCulture, "{0:C} (Celsius) = {0:K} (Kelvin) = {0:F} (Fahrenheit)", temp1));

Console.WriteLine(String.Format(new CultureInfo("fr-FR"), "{0:C} (Celsius) = {0:K} (Kelvin) = {0:F} (Fahrenheit)\n", temp1));

// Call ToString method with format string.

temp1 = new Temperature(32);

Console.WriteLine("{0} (Celsius) = {1} (Kelvin) = {2} (Fahrenheit)\n",

temp1.ToString("C"), temp1.ToString("K"), temp1.ToString("F"));

// Call ToString with format string and format provider

temp1 = new Temperature(100) ;

NumberFormatInfo current = NumberFormatInfo.CurrentInfo;

CultureInfo nl = new CultureInfo("nl-NL");

Console.WriteLine("{0} (Celsius) = {1} (Kelvin) = {2} (Fahrenheit)",

temp1.ToString("C", current), temp1.ToString("K", current), temp1.ToString("F", current));

Console.WriteLine("{0} (Celsius) = {1} (Kelvin) = {2} (Fahrenheit)",

temp1.ToString("C", nl), temp1.ToString("K", nl), temp1.ToString("F", nl));

}

}

// The example displays the following output:

// 0.00 °C (Celsius) = 273.15 K (Kelvin) = 32.00 °F (Fahrenheit)

//

// -40.00 °C (Celsius) = 233.15 K (Kelvin) = -40.00 °F (Fahrenheit)

// -40,00 °C (Celsius) = 233,15 K (Kelvin) = -40,00 °F (Fahrenheit)

//

// 32.00 °C (Celsius) = 305.15 K (Kelvin) = 89.60 °F (Fahrenheit)

//

// 100.00 °C (Celsius) = 373.15 K (Kelvin) = 212.00 °F (Fahrenheit)

// 100,00 °C (Celsius) = 373,15 K (Kelvin) = 212,00 °F (Fahrenheit)

// пример 2

public class TestFormatter

{

public static void Main()

{

int acctNumber = 79203159;

Console.WriteLine(String.Format(new CustomerFormatter(), "{0}", acctNumber));

Console.WriteLine(String.Format(new CustomerFormatter(), "{0:G}", acctNumber));

Console.WriteLine(String.Format(new CustomerFormatter(), "{0:S}", acctNumber));

Console.WriteLine(String.Format(new CustomerFormatter(), "{0:P}", acctNumber));

try {

Console.WriteLine(String.Format(new CustomerFormatter(), "{0:X}", acctNumber));

}

catch (FormatException e) {

Console.WriteLine(e.Message);

}

}

}

public class CustomerFormatter : IFormatProvider, ICustomFormatter

{

public object GetFormat(Type formatType)

{

if (formatType == typeof(ICustomFormatter))

return this;

else

return null;

}

public string Format(string format,

object arg,

IFormatProvider formatProvider)

{

if (! this.Equals(formatProvider))

{

return null;

}

else

{

if (String.IsNullOrEmpty(format))

format = "G";

string customerString = arg.ToString();

if (customerString.Length < 8)

customerString = customerString.PadLeft(8, '0');

format = format.ToUpper();

switch (format)

{

case "G":

return customerString.Substring(0, 1) + "-" +

customerString.Substring(1, 5) + "-" +

customerString.Substring(6);

case "S":

return customerString.Substring(0, 1) + "/" +

customerString.Substring(1, 5) + "/" +

customerString.Substring(6);

case "P":

return customerString.Substring(0, 1) + "." +

customerString.Substring(1, 5) + "." +

customerString.Substring(6);

default:

throw new FormatException(

String.Format("The '{0}' format specifier is not supported.", format));

}

}

}

}