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# 01 ChrisFirstProject

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace ChrisFirstProject

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

MessageBox.Show("Hello","Chris Paine!");

}

private void button1\_MouseHover(object sender, EventArgs e)

{

MessageBox.Show("You are hovering");

}

}

}

# 04 Variables

namespace Variables

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void Form1\_Load(object sender, EventArgs e)

{

}

private void button1\_Click(object sender, EventArgs e)

{

string name = "Chris Paine";

int number = 911;

bool red = false;

object myObject = true;

//MessageBox.Show(name);

//MessageBox.Show(number.ToString());

//MessageBox.Show(red.ToString());

MessageBox.Show(myObject.ToString());

}

}

}

# 05 property of object using code

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_05\_property\_of\_object\_using\_code

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

button1.Text = "New Name";

button1.Enabled = false;

button1.Height = 60;

textBox1.Text = "Chris Paine";

textBox1.MaxLength = 2;

}

}

}

# 06 if statements

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_06\_if\_statements

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

if (textBox1.Text == "Chris") {

MessageBox.Show("Paine");

}

else if (textBox1.Text != "Paine")

{

MessageBox.Show("Chris");

}

else

{

MessageBox.Show("Who are you!!");

}

}

}

}

# 07 More If

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_07\_More\_If

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

//if (checkBox1.Checked == true) {

if (checkBox1.Checked)

{

//if (!checkBox1.Checked) {

MessageBox.Show("Check box checked");

}

bool mybool = true;

if (mybool)

{

MessageBox.Show("True");

}

int a = 11;

int b = 12;

int c = 15;

if (a < c)

{

MessageBox.Show("True");

}

}

}

}

# 08 If more prt3

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_08\_If\_more\_prt3

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

//if (textBox1.Text == "Chris" && checkBox1.Checked == true) {

//MessageBox.Show("Checked Hello");

//}

//}

if (textBox1.Text == "Chris" || checkBox1.Checked == true) {

MessageBox.Show("Checked Hello");

}

}

}

}

# 09 Switch Statement

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_09\_Switch\_Statement

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

switch (textBox1.Text) {

case "Chris":

MessageBox.Show("Paine");

break;

case "Paine":

MessageBox.Show("Chris");

break;

default:

MessageBox.Show("Your name is not entered");

break;

}

}

}

}

# 10 Math operators

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_10\_Math\_operators

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

int a = 5;

int b = 3;

MessageBox.Show((a+b).ToString());

MessageBox.Show((a \* b).ToString());

MessageBox.Show((a / b).ToString());

MessageBox.Show((a++).ToString());

MessageBox.Show((--a).ToString());

}

}

}

# 11 Arrays

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_11\_Arrays

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

string[] names = {"Chris","Paine","Dresden","Maine"};

MessageBox.Show(names[0]);

int[] numbers = {1,2,3,4,5,6 };

MessageBox.Show(numbers[3].ToString());

}

}

}

# 12 Lists

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_12\_Lists

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

//list similar to array

string[] myarray = new string[4]; //sample array specify total elements

List<string> names = new List<string>(); //list don't need to specify elements

names.Add("Chris");

names.Add("Paine");

MessageBox.Show(names[0]);

MessageBox.Show(names[1]);

List<int> numbers = new List<int>();

numbers.Add(100);

numbers.Add(200);

MessageBox.Show(numbers[1].ToString());

}

}

}

# 13 For and foreach loop

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_13\_For\_and\_foreach\_loop

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

//for (int inc = 0;; inc++) infinite loop

for (int inc = 0; inc <= 2; inc++) {

MessageBox.Show("Hello " + inc.ToString());

string[] names = {"Chris","Paine","Dresden" };

foreach (string s in names) {//loops thru each of the elements

MessageBox.Show(s);

List<int> numbers = new List<int>();

numbers.Add(5);

numbers.Add(10);

numbers.Add(15);

foreach(int i in numbers){

MessageBox.Show(i.ToString());

}

}

}

}

}

}

# 14 do and do while

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_14\_do\_and\_do\_while

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

int inc = 0;

while(inc < 10){//(true) infinite loop

textBox1.Text += inc.ToString();

inc++;

}

int k = 0;

do{

textBox1.Text += k.ToString();

k++;

} while (k < 10);//(something static like true) = (true) infinate loop

}

}

}

# 15 try catch and finally

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_15\_try\_catch\_and\_finally

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

//instead of application crashing

try {

string[] names = new string[2];

string s = names[2];

}

catch (Exception ex) {

MessageBox.Show("Custom message");

MessageBox.Show(ex.Message);

}

finally {

MessageBox.Show("Your code is done!");//do this last

}

}

}

}

# 16 Methods pt 1

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_16\_Methods\_pt\_1

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

Message("Button1","Title");

}

void Message(string message, string title) {

MessageBox.Show(message, title);

}

private void button2\_Click(object sender, EventArgs e)

{

Message("Button2","Title2");

}

}

}

# 17 Method pt2

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_17\_Method\_pt2

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

MessageBox.Show(myMethod("Chris"));//method repersents a string.

MessageBox.Show(math(12,12).ToString());

}

int math(int x,int y){

return x\*y;

}

string myMethod(string name) {

return name;

}

}

}

# 18 continue and break

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_18\_continue\_and\_break

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

//can use breakpoint to the left and F11 to step thru code.

for (int inc = 0; inc <= 10; inc++ ) {

if (inc == 5) { break; }

if (inc == 2) { continue; }

textBox1.Text += inc.ToString();

}

}

}

}

# 19 Overview of Namespaces and classes

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms; //system, inside windows, inside forms are all namespace.

using myNamespace; //to access your defined namespace.

namespace \_19\_Overview\_of\_Namespaces\_and\_classes

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void Form1\_Load(object sender, EventArgs e)

{

//System.Windows.Forms.MessageBox.Show if you didn't using System.Windows.Forms above.

//Have to type out all.

}

}

}

**myClass.cs**using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

namespace myNamespace

//organize structs and classes and interfaces.

{

namespace mySubNamespace //sub namespace inside of myNamespace.

{

}

class myClass //used to organize method and variables. Notice myClass is not in namespaces.

{

}

}

# 20 Constructors

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using myNamespace;

namespace \_20\_Constructors

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

myClass mc = new myClass("Chris");

}

}

}

**myClass.cs**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

namespace myNamespace

{

class myClass{

string Name;

public myClass(string name) //ctor tab twice auto constructor

{

//when create new class calls this method.

Name = name;

}

//compiler will now which to choose base on var passed.

public myClass(bool variable)// can have more then one constructors.

{

}

}

}

# 21 Access modifiers and static

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using myNamespace;

namespace \_21\_Access\_modifiers\_and\_static

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

string name = "Chris";

myClass mc = new myClass(name);

mc.name();//public

mc.lastName(); //private can't access.

//static don't need to create an instance of the class to access static.

myClass.showMessage("Chris");

}

}

}

**myClass.cs**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

namespace myNamespace

{

class myClass

{

string Name;

string lastNames;

public myClass(string name)

{

Name = name;

}

public string name() {

return Name;

}

private string lastName() {//default private access modifier.

return lastNames;

}

public static void showMessage(string message){// static is modifier.

System.Windows.Forms.MessageBox.Show(message);

}

}

}

# 22 Overloading Methods and Enumerators

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using myNamespace;

namespace \_22\_Overloading\_Methods\_and\_Enumerators

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

myClass.ShowMessage(24);

}

}

}

**myClass.cs**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

namespace myNamespace

{

class myClass

{

enum names : byte{ //defaults to integer, now it is a byte array.

Chris,

Paine = 4,

Dianne //will now equal 5

}

string Name;

public myClass(string name)// constructor

{

Name = name;

}

string name() {

return Name;

}

names myNames = names.Chris;// first element defaults to 0

public static void ShowMessage(string message) {

System.Windows.Forms.MessageBox.Show(message);

}

//public static void ShowMessage(string message) create error can't have method with same parameters.

//{

//System.Windows.Forms.MessageBox.Show(message);

//}

public static void ShowMessage(int message)// overloaded as many times as you want.

{

System.Windows.Forms.MessageBox.Show(message.ToString());//not using namespace.

}

}

}

# 23 Creating your own properties

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using myNamespace;

namespace \_23\_Creating\_your\_own\_properties

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

myClass mc = new myClass("Chris");

MessageBox.Show(mc.Name);//properties with get and set.

}

}

}

**myClass.cs**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

namespace myNamespace

{

class myClass

{

string myString;

public myClass(string name)// constructor

{

myString = name;

Name = name;

}

public string Name

{

get{return myString} //now readonly

private set; // user can only change value, set is accessor

//value is keyword for info passed

//set{

//if(value=="") System.Windows.Forms.MessageBox("Checked value"):

//}

}

}

}

# 24 Throwing an exceptions

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_24\_Throwing\_an\_exceptions

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

try// try stops prog from crashing with the catch method.

{

myClass.CheckString("");

}

catch (Exception ex) { MessageBox.Show(ex.Message); }

}

}

}

**myClass.cs**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

namespace \_24\_Throwing\_an\_exceptions

{

class myClass

{

static Exception myException = new Exception("You can't do that!");

public static void CheckString(string myString) {

if (myString == ""){

throw myException;//usually inside of class.

}

}

}

}

**25 Inheritance and Overloading**

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using myNamespace;

namespace \_25\_Inheritance\_and\_Overloading

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

mySecondClass mc = new mySecondClass();

MessageBox.Show(mc.age.ToString()); //member of myclass.

MessageBox.Show(mc.hairColor);// member of second class.

MessageBox.Show(mc.Name);//protected can't access.

}

}

}

**myClass.cs**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

namespace myNamespace{

class myClass{

protected string Name = "Chris";// only inherit from public not private members.

public int age = 45;

public void display(string message) {

System.Windows.Forms.MessageBox.Show(message);

}

}

class mySecondClass : myClass{ //inherit all public members

public string hairColor = "red";

void MessageBoxSpecial(){

System.Windows.Forms.MessageBox.Show(base.age.ToString());//use base to access base class members

base.display("hello");

}

public new string Name = "Paine";//will use this method to replace other class. If you can't access the other class like dll.

public override string Name = "Dianne"; //Same as above.

}

}

# 26 More on inheritance and interface

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using MyNamespace;

namespace \_26\_More\_on\_inheritance\_and\_interface

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

mySecondClass mc = new mySecondClass();

myThirdClass mtc = new myThirdClass();

mtc.Test();// inherits from all classed as derived.

}

}

}

**myClass.cs**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

namespace MyNamespace

{

class myClass

{

private string name = "Chris";

protected int age = 30;

public virtual void showMessage(string message) {

System.Windows.Forms.MessageBox.Show(message);

}

}

class mySecondClass : myClass, ImyInterface {//can inherit from one base class.

public string HairColor = "Brown";

public override void showMessage(string message){

System.Windows.Forms.MessageBox.Show(message, "My Title");

}

void myVoid() {

base.showMessage("My void");

}

}

class myThirdClass : mySecondClass {

public string Test = "Dresden";

}

interface ImyInterface {//??

void myVoid();//default public

//can't define methods in interfaces.

}

}

# 27 Indexers

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_27\_Indexers

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

MyClass mc = new MyClass();

MessageBox.Show(mc[0]);

}

}

}

**myClass.cs**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

namespace \_27\_Indexers

{

class MyClass

{

public string this[int index]{//indexer can use multi params with [int index, string test]

get{return paine[index];}

set{paine[index] = value;}//delete to make readonly.

}

string[] paine = {"Chris","Dianne","Seth" };

}

}

# 28 Structs

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using myNamespace;

namespace \_28\_Structs

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

Client Client1 = new Client();

Client1.Name = "Chris";

Client1.Age = 35;

Client1.ClearClientInfo;

Client Client2 = new Client();

Client2.Name = "Dianne";

Client2.Age = 36;

}

}

}

**myClass.cs**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

namespace myNamespace

{

struct Client {//can't inherit from class or structs.

public Client(string name)//constructor in struct

{

Name = name;

Age = 0;

}

public string Name;

public int Age;

public void ClearClientInfo() {//method in structs

Name = "";

Age = 0;

}

}

interface Iinter{// can use structs and interfaces.

public string Name;

}

}

# 29 Partial

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_29\_Partial

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

myClass mc = new myClass();

//mc.BirthDay;//combines two classes.

mc.showMessage("Chris");

}

}

}

**myClass.cs**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

namespace myNamespace

{

partial class myClass//

{

public string Name = "Chris";

public int Age = 35;

partial void message(string message);//no access modifer.

}

}

**myClass2.cs**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

namespace \_29\_Partial

{

partial class myClass

{

public string Hair = "Brown";

public int BirthDay = 22;

partial void message(string message) {//used in both partial class.

System.Windows.Forms.MessageBox.Show(message);

}

public void showMessage(string message) {

message(message);

}

}

}

# 30 Abstract

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace myNameSpace

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

//myClass mc = new myClass();//abstract blocks creation.

//mc. prevent users from createing instance.

}

}

}

**myClass.cs**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

namespace myNameSpace

{

abstract class MyClass

{

public static string name = "Chris";

public static int Age = 15;

public static void Message(string message)

{

System.Windows.Forms.MessageBox.Show(message);

}

public abstract void ShowMessage(string message);

//can't declare body.

}

class mySecondClass : MyClass//will auto type, can overide the abstract showmessage

{

public override void ShowMessage(string message)

{

System.Windows.Forms.MessageBox.Show(message);

}

}

}

# 31 Delegates

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using myNamespace;

namespace \_31\_Delegates

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

myClass mc = new myClass();

mc.ShowThoseMessages();

}

}

}

**myClass.cs**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

namespace myNamespace

{

class myClass//useful to call multi methods.

{

delegate void myDelegate(string myString);

public void ShowThoseMessages()

{

myDelegate md = new myDelegate(ShowMessage);//don't need paren, not calling

md += showAnotherMessage;//adding to delegate.

md("Chris");//will call methods in delagate, call multi methods.

}

void ShowMessage(string message)

{

System.Windows.Forms.MessageBox.Show(message);

}

void showAnotherMessage(string a) {

System.Windows.Forms.MessageBox.Show("Test");

}

void showAnotherMessage(int a)//won't work data type wrong, or return type.

{

System.Windows.Forms.MessageBox.Show("Test");

}

}

}

**32 Events**

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_32\_Events

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{//subscriber method void return , sender object , eventargs info, called delegate

myClass mc = new myClass();

mc.onPropertyChanged += new EventHandler(mc\_onPropertyChanged);

//+= tab twice to create below

mc.Name = "Chris";

}

//method will be called

void mc\_onPropertyChanged(object sender, EventArgs e)

{

MessageBox.Show("The property has changed");

}

}

}

**myClass.cs**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

namespace \_32\_Events

{

class myClass

{

public event EventHandler onPropertyChanged;//event raised when prop change.

//event just special type of delegate.

string name = "";

public string Name {

get { return name; }

set { name = value;

onPropertyChanged(this, new EventArgs());

}

}

}

}

# 33 Ternay Operator

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_33\_Ternay\_Operator

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

//string myString = "";

//if (checkBox1.Checked) myString = "It's Checked";

//else myString = "It's not checked";

//ternary operator shorter

string myString = (checkBox1.Checked) ? "It's Checked" :"It's not checked";

MessageBox.Show(myString);

//shorter still to one line code.

//will cutdown on your readibility.

MessageBox.Show((checkBox1.Checked) ? "It's Checked" : "It's not checked");

}

}

}

# 34 OpenFileDialogs

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_34\_OpenFileDialogs

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void textBox1\_TextChanged(object sender, EventArgs e)

{

}

private void button1\_Click(object sender, EventArgs e)

{

OpenFileDialog ofd = new OpenFileDialog();

ofd.Filter = "PNG Image| \*.png|BIK|\*.bik";

ofd.Title = "Open Image";//set properties

if (ofd.ShowDialog() == System.Windows.Forms.DialogResult.OK) {

MessageBox.Show(ofd.FileName);

MessageBox.Show(ofd.SafeFileName);

}

}

}

}

# 35 More Variable Types

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_35\_More\_Variable\_Types

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

byte myByte = 255;//unsigned 0-255

sbyte Mysbyte = -124;

short myShort = 0;// ushort unsigned

Int16 myInt16 = myShort;

int myint = 32;

Int32 = myint32 = myint;

long mylong = 8;

Int64 myInt64 = mylong;

float myFloat = 224442.11F;//seven digits long

double mydouble = .12344;

char myChar = 'D';

}

}

}

# 36 StreamReader pt1

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.IO; // for streamreader namespace is in.

// http://www.youtube.com/watch?v=--YPtMsg\_6E

namespace \_36\_StreamReader\_pt1

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

OpenFileDialog ofd = new OpenFileDialog();//instance of openfile dialog.

if (ofd.ShowDialog() == System.Windows.Forms.DialogResult.OK) {// test condition

StreamReader or = new StreamReader(File.OpenRead(ofd.FileName));//instance of streamreader and path.

//read from the beginning didn't spec where to start.

textBox1.Text = or.ReadToEnd();//read from current of file to end.

or.Dispose();//dispose of the stream reader(close file)good practice.

//hex editor google hxd

}

}

private void Form1\_Load(object sender, EventArgs e)

{

}

}

}

# 37 streamreader2

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.IO;

namespace \_37\_streamreader2

{

public partial class Form1 : Form {

public Form1() { InitializeComponent(); }

private void button1\_Click(object sender, EventArgs e) {

OpenFileDialog ofd = new OpenFileDialog(); //instance of openfile dialog.

if (ofd.ShowDialog() == System.Windows.Forms.DialogResult.OK) { // test condition

StreamReader or = new StreamReader(File.OpenRead(ofd.FileName)); //instance of streamreader and path.

or.BaseStream.Position = 4; // set offset by checking hex editor lower left. 0x0c for C hex.

textBox1.Text = or.BaseStream.ReadByte().ToString("x"); //keeps binary in hex display. read single bytes.

byte[] buffer = new byte[3];

or.BaseStream.Read(buffer, 0, 3); //read three bytes to byte array

//read from the beginning didn't spec where to start.

foreach (byte myByte in buffer) // loop thru all elements of array buffer.

textBox1.Text += myByte.ToString(" x ");

or.Dispose();

}

}

}

}

# 38 StreamReader pt3 Writing

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.IO; //for stream reader.

namespace \_38\_StreamReader\_pt3\_Writing{

public partial class Form1 : Form{

public Form1() {

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e) {

OpenFileDialog ofd = new OpenFileDialog();//instance of new openfile dialog.

if (ofd.ShowDialog() == System.Windows.Forms.DialogResult.OK) {// test condition

StreamReader or = new StreamReader(File.OpenRead(ofd.FileName));//instance of new streamreader of the file.

char c = (char)or.Peek(); // read a character at a position. Won't change position. ()cast in char.

char c1 = (char)or.Read(); //will change next character and advanced.

char c2 = (char)or.Read(); //will change next character and advanced.

MessageBox.Show(c.ToString() + ":" + c1.ToString() +":"+ c2.ToString());

or.Dispose();

}

}

}

}

# 39 StreamWriter pt1

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.IO;

namespace \_39\_StreamWriter\_pt1

{

public partial class Form1 : Form

{

public Form1(){

InitializeComponent();

button2.Enabled = false;

}

string path;

private void button1\_Click(object sender, EventArgs e){

OpenFileDialog ofd = new OpenFileDialog();//open dialog

if (ofd.ShowDialog() == DialogResult.OK) {//check if clicked

button2.Enabled = true;

path = ofd.FileName;

}

}

private void button2\_Click\_1(object sender, EventArgs e)

{

StreamWriter sw = new StreamWriter(File.Create(path));//openwrite instead create to erase file.

sw.Write(textBox1.Text);// write does not add new line after write.

sw.WriteLine("second line of text");// increments new line after write.

sw.Write("Chris"); // another line 3.

sw.Dispose();

}

}

}

# 40 Stream Writer pt2

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.IO; // for stream writer.

namespace \_40\_Stream\_Writer\_pt2{

public partial class Form1 : Form{

public Form1(){

InitializeComponent();

}

//http://www.youtube.com/watch?v=uEcwwjB7Fg4

string path;

private void button1\_Click(object sender, EventArgs e){

OpenFileDialog ofd = new OpenFileDialog();

if (ofd.ShowDialog() == DialogResult.OK) {

button2.Enabled = true;

path = ofd.FileName;

}

}

private void button2\_Click(object sender, EventArgs e){

StreamWriter sw = new StreamWriter(File.OpenWrite(path));

sw.BaseStream.Position = 0x1e;

sw.BaseStream.WriteByte(0xff);//write bytes of code in hex 0x.

//byte[] buffer = { 0x08, 0x09, 0x0A };//create byte array for writing multi lines.

//sw.BaseStream.Write(buffer,0,3);//(buffer array,offset,how many bytes in array)

sw.Dispose();

}

}

}

# 41 Binary Reader prt1

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.IO;

namespace \_41\_Binary\_Reader\_prt1{

public partial class Form1 : Form {

public Form1() {

InitializeComponent();

}

string path;

private void button1\_Click(object sender, EventArgs e) {

OpenFileDialog ofd = new OpenFileDialog();

if (ofd.ShowDialog() == DialogResult.OK){

button2.Enabled = true;

path = ofd.FileName;

}

}

private void button2\_Click(object sender, EventArgs e) {

BinaryReader br = new BinaryReader(File.OpenRead(path));

br.BaseStream.Position = 0x10;// in hex

textBox1.Text = br.ReadChar().ToString();//read first character single

//multi binary from above position

foreach (char myChar in br.ReadChars(4)) textBox1.Text += myChar;

br.Dispose();

textBox1.Text = br.ReadInt16().ToString("x");//reads right to left little Indian byte order

}

}

}

# 42 Binary Reader prt2

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.IO;

namespace \_42\_Binary\_Reader\_prt2{

public partial class Form1 : Form {

public Form1(){ InitializeComponent();}

string path;

private void button1\_Click(object sender, EventArgs e) {

OpenFileDialog ofd = new OpenFileDialog();

if (ofd.ShowDialog() == DialogResult.OK){

button2.Enabled = true;

path = ofd.FileName;

}

}

private void button2\_Click(object sender, EventArgs e) {

BinaryReader br = new BinaryReader(File.OpenRead(path));

br.BaseStream.Position = 0x1E;// set read position

byte[] buffer = br.ReadBytes(2);//Read the wrong order 00 01 = 10 00

Array.Reverse(buffer); // reverse array to

textBox1.Text = BitConverter.ToInt16(buffer, 0).ToString("x");//bitconvert to toint16, 32 four bytes use toInt32, ("x") = shows hex, .ToString() = decimal entire number.

//bitconverter useful = turn a number into byte array.

br.Dispose();

}

}

}

# 43 Binary Writer

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.IO;//binarywriter class

namespace \_43\_Binary\_Writer{

public partial class Form1 : Form {

public Form1() { InitializeComponent(); }

string path;

private void button1\_Click(object sender, EventArgs e) {

OpenFileDialog ofd = new OpenFileDialog();

if (ofd.ShowDialog() == DialogResult.OK) {

button2.Enabled = true;

path = ofd.FileName;

}

}

private void button2\_Click(object sender, EventArgs e) {

BinaryWriter bw = new BinaryWriter(File.OpenWrite(path));

short myshort = 1;

byte[] buffer = BitConverter.GetBytes(myshort);

Array.Reverse(buffer);//convert bytes in the wrong directions

bw.Write('C');//write just a character.

bw.Write(1);//write in wrong direction like before.

bw.Dispose();

}

}

}

# 44 SaveFileDialog

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.IO;

namespace \_44\_SaveFileDialog{

public partial class Form1 : Form {

public Form1() { InitializeComponent(); }

private void button1\_Click(object sender, EventArgs e) {

SaveFileDialog sfd = new SaveFileDialog();

sfd.Filter = "Text File|\*.txt";//default type

sfd.FileName = "MyTextFile";// default name

sfd.Title = "Save Title"; // title name

if (sfd.ShowDialog() == DialogResult.OK){

string path = sfd.FileName;

BinaryWriter bw = new BinaryWriter(File.Create(path));

bw.Write("This is a test");

bw.Dispose();

}

}

}

}

# 45 Convert Class

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.IO;

namespace \_45\_Convert\_Class

{

public partial class MyVersion : Form {

public MyVersion() { InitializeComponent(); }

private void button1\_Click(object sender, EventArgs e) {

//textbox generaly string type, type cast to int.

//convert class is static.

try// good practice

{

//heavily overloaded convert class

int myInt = Convert.ToInt32(textBox1.Text);// can treat as a numer + 2 or \* 2

MessageBox.Show(myInt.ToString());

char myChar = Convert.ToChar(textBox2.Text);

MessageBox.Show(myChar.ToString());

bool myBool = Convert.ToBoolean(textBox3.Text);

MessageBox.Show(myBool.ToString());

}

catch { MessageBox.Show("Conversion Failed"); }

}

private void label1\_Click(object sender, EventArgs e)

{

}

}

}

# 46 repeat of 45 Convert Class

# 47 is as and casting

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_47\_is\_as\_and\_casting{

public partial class Form1 : Form {

public Form1() { InitializeComponent(); }

private void button1\_Click(object sender, EventArgs e) {

object myObj = "Chris";

//string myString = myObj as string;

if (myObj is string) { MessageBox.Show((string)myObj); }

Control myControl = button1;

if (myControl is Button) {//using is keyword to test

Button myButton = (Button)myControl;

//Button myButton = myControl as Button;//same as above

}

}

}

}

# 48 repeat of 45 Convert Class

# 49 Substrings

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

//no using strings;

namespace \_49\_Substrings{

public partial class Form1 : Form { public Form1() {

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e) {

string name = "John Smith";

string Firstname = name.Substring(0, 4);

MessageBox.Show(Firstname);

string Lastname = name.Substring(5, 5);

MessageBox.Show(Lastname);

}

}

}

# 50 IndexOf and Trim

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_50\_IndexOf\_and\_Trim{

public partial class Form1 : Form {

public Form1() { InitializeComponent(); }

private void button1\_Click(object sender, EventArgs e) {

string name = "John Smith";

string FirstName = name.Substring(0, name.IndexOf(' '));//space index

MessageBox.Show(FirstName);

string LastName = name.Substring(name.IndexOf(' ') + 1);//only need one index value

MessageBox.Show(LastName);

string calendar = " 12/12/12 ";

string fixcalendar = calendar.Trim();//all space start and end

string fixcalendar2 = calendar.TrimStart();// start trim only

string fixcalendar3 = calendar.TrimEnd();// end trim only

MessageBox.Show(fixcalendar);

}

}

}

# 51 Remove and Replace

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_51\_Remove\_and\_Replace{

public partial class Form1 : Form {

public Form1() { InitializeComponent(); }

private void button1\_Click(object sender, EventArgs e) {

string sentence = "Hello, my name is Chris";

string after = sentence.Remove(0, 7);

MessageBox.Show(after);

string after2 = sentence.Remove(18);

MessageBox.Show(after2);

string after3 = sentence.Replace("Hello", "Hi");

MessageBox.Show(after3);

string after4 = sentence.Replace('a','i');

MessageBox.Show(after4);

}

}

}

# 52 Math Class

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_52\_Math\_Class

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

label1.Text = Math.Abs(-4).ToString();

label1.Text = Math.PI.ToString();

label1.Text = Math.Pow(4,2).ToString();

label1.Text = Math.Round(4.522,2).ToString();

}

}

}

# 53 Split and to CharArray

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_52\_Split\_and\_to\_CharArray{

public partial class Form1 : Form {

public Form1() { InitializeComponent(); }

private void button1\_Click(object sender, EventArgs e) {

string name = "Chris;Dianne;Justin;Alica;Seth;Shadow";

string[] nameArray = name.Split(';');//string array base on delineated values

foreach(string names in nameArray)

MessageBox.Show(names);

string \_letters = "abcdefg";

char[] letters = \_letters.ToCharArray();

foreach(char lets in letters)

MessageBox.Show(lets.ToString());//need to cast as string not char

}

}

}

# 54 Generating Random Numbers

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_54\_Generating\_Random\_Numbers

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

Random r = new Random();

MessageBox.Show(r.Next().ToString() );

MessageBox.Show(r.Next(0,100).ToString());

byte[] buffer = new byte[5];

Random rx = new Random();

r.NextBytes(buffer);//fill byte array with random bytes

MessageBox.Show(BitConverter.ToString(buffer));

MessageBox.Show(rx.NextDouble().ToString());//random double

}

}

}

# 55 Generating Random String

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_55\_Generating\_Random\_String

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

char[] letters = "abcdefghijklmnopqrstuvwxyz".ToCharArray();

Random r = new Random();

MessageBox.Show(letters[r.Next(0,25)].ToString());//gen random number index char array

string rand = "";

for (int i = 0; i < 10; i++) {

rand += letters[r.Next(0,25)].ToString();

MessageBox.Show(rand);

}

}

}

}

# 56 Folder Browser Dialog

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_56\_Folder\_Browser\_Dialog

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

FolderBrowserDialog fbd = new FolderBrowserDialog();

fbd.RootFolder = Environment.SpecialFolder.ProgramFiles;//default path

if(fbd.ShowDialog() == System.Windows.Forms.DialogResult.OK){

MessageBox.Show(fbd.SelectedPath);

}

}

private void button2\_Click(object sender, EventArgs e)

{

FolderBrowserDialog fbd = new FolderBrowserDialog();

fbd.RootFolder = Environment.SpecialFolder.MyDocuments;

if (fbd.ShowDialog() == System.Windows.Forms.DialogResult.OK)

{

MessageBox.Show(fbd.SelectedPath);

}

}

}

}

# 57 Directory Class prt1

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.IO;

namespace \_57\_Directory\_Class\_prt1

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

FolderBrowserDialog fbd = new FolderBrowserDialog();

if(fbd.ShowDialog() == DialogResult.OK){

string[] files = Directory.GetFiles(fbd.SelectedPath);

foreach(string f in files)

MessageBox.Show(f);

string[] dir = Directory.GetDirectories(fbd.SelectedPath);

foreach (string d in dir)

MessageBox.Show(d);

string[] drives = Directory.GetLogicalDrives();

foreach(string d in drives)

MessageBox.Show(d);

}

}

}

}

# 58 Directory Class prt2

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.IO;

namespace \_58\_Directory\_Class\_prt2{

public partial class Form1 : Form {

public Form1() { InitializeComponent(); }

private void button1\_Click(object sender, EventArgs e) {

FolderBrowserDialog fbd = new FolderBrowserDialog();

if(fbd.ShowDialog() == DialogResult.OK){

MessageBox.Show(Directory.GetCreationTime(fbd.SelectedPath).ToString());

MessageBox.Show(Directory.GetLastAccessTime(fbd.SelectedPath).ToString());

MessageBox.Show(Directory.GetLastWriteTime(fbd.SelectedPath).ToString());

MessageBox.Show(Directory.GetParent(fbd.SelectedPath).ToString());

}

}

}

}

# 59 - Directory Class pt3

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.IO;

namespace \_59\_\_\_Directory\_Class\_pt3{

public partial class Form1 : Form {

public Form1() { InitializeComponent(); }

private void button1\_Click(object sender, EventArgs e) {

FolderBrowserDialog fbd = new FolderBrowserDialog();

if(fbd.ShowDialog() == DialogResult.OK){

Directory.CreateDirectory(fbd.SelectedPath + "\\Chris");//creates folder where user picks.

Directory.Move(fbd.SelectedPath, "C:\\users\\cpaine\\Desktop\\Paine");//move folder to destination

Directory.Delete(fbd.SelectedPath);

}

}

}

}

# 60 - File Class pt 1

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.IO;

namespace \_60\_\_\_File\_Class\_pt\_1{

public partial class Form1 : Form {

public Form1() { InitializeComponent(); }

private void button1\_Click(object sender, EventArgs e) {

OpenFileDialog ofd = new OpenFileDialog();

if(ofd.ShowDialog() == DialogResult.OK){

MessageBox.Show(File.Exists(ofd.FileName).ToString());

// MessageBox.Show(File.Exists("C:\\users\\cpaine\\desktop\\Chris.text").ToString());

File.Delete(ofd.FileName);

}

}

}

}

# 61 - File Class pt 2

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.IO;

namespace \_61\_\_\_File\_Class\_pt\_2{

public partial class Form1 : Form {

public Form1() { InitializeComponent(); }

private void button1\_Click(object sender, EventArgs e) {

OpenFileDialog ofd = new OpenFileDialog();

if(ofd.ShowDialog()==DialogResult.OK){

File.Copy(ofd.FileName, "C:\\temp\\renameFile.txt");

File.Move(ofd.FileName, "C:\\temp\\renameFile.txt");

}

}

}

}

# 62 - Path Class

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.IO;

namespace \_62\_\_\_Path\_Class{

public partial class Form1 : Form {

public Form1() { InitializeComponent(); }

private void button1\_Click(object sender, EventArgs e) {

OpenFileDialog ofd = new OpenFileDialog();

if(ofd.ShowDialog()==DialogResult.OK){

MessageBox.Show(Path.GetDirectoryName(ofd.FileName));

MessageBox.Show(Path.GetExtension(ofd.FileName));

MessageBox.Show(Path.GetFileName(ofd.FileName));

MessageBox.Show(Path.GetFileNameWithoutExtension(ofd.FileName));

MessageBox.Show(Path.GetFullPath(ofd.FileName));

MessageBox.Show(Path.HasExtension(ofd.FileName).ToString());

}

}

}

}

# 63 - Process Class pt 1

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.Diagnostics;

namespace \_63\_\_\_Process\_Class\_pt\_1

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

OpenFileDialog ofd = new OpenFileDialog();

if (ofd.ShowDialog()==DialogResult.OK){

//Process.Start(ofd.FileName);start file clicked

Process.Start("Notepad.exe");//should not be in the ofd block. no path it in system 32.

Process.Start("cmd.exe");

MessageBox.Show(Process.GetCurrentProcess().ProcessName);

Process.GetCurrentProcess().Kill();

}

}

}

}

# 64 - Process Class pt 2

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.Diagnostics;

namespace \_64\_\_\_Process\_Class\_pt\_2{

public partial class Form1 : Form {

public Form1() { InitializeComponent(); }

private void button1\_Click(object sender, EventArgs e) {

foreach (Process p in Process.GetProcesses())

MessageBox.Show(p.ProcessName);//long list

//foreach (Process p in Process.GetProcesses()) examples

//p.kill(); bad idea

//foreach (Process p in Process.GetProcesses()) examples

//MessageBox.Show(p.responding.toString());can loop thru with foreach

foreach (Process p in Process.GetProcessesByName("skype"))

MessageBox.Show(p.ProcessName);//by name

}

}

}

# 65 - Null Coalesce Operator

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_65\_\_\_Null\_Coalesce\_Operator

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

string myString = null;

if (myString == null)

{

MessageBox.Show("Is null!");

}

else {

MessageBox.Show(myString);

}

string qq = null;

MessageBox.Show(qq ?? "This is null shorthand");//?? shorthand then ternary operator

int? i = null;//?? for null tests.

int x = i ?? 8;

MessageBox.Show(x.ToString());

}

}

}

# 66 - Bitwise Operators pt 1

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_66\_\_\_Bitwise\_Operators\_pt\_1

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

//use calculator to show binary

short myShort = ~3;//invert op 0000 0000 0000 0011 ~ 1111 1111 1111 1100 = inverted.

MessageBox.Show(Convert.ToString(myShort,2));

myShort = ~5;

MessageBox.Show(Convert.ToString(myShort, 2));

}

}

}

# 67 - Bitwise Operators pt 2

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_67\_\_\_Bitwise\_Operators\_pt\_2

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

short myShort = 3 & 5;//compares two number at the binary level, one and. 0011 and 1001 = 0001

MessageBox.Show(Convert.ToString(myShort,2));

short myShort2 = 3 & 4;//compares two number at the binary level, one and. 0011 and 0100 = 0000

MessageBox.Show(Convert.ToString(myShort2, 2));

short myShort3 = 3 | 5;//compares two number at the binary level, one and. 0011 and 0101 = 0111

MessageBox.Show(Convert.ToString(myShort3, 2));

}

}

}

# 68 - Bitwise Operators pt 3

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_68\_\_\_Bitwise\_Operators\_pt\_3

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

short myShort = 3 ^ 5;//xor 0011 xor 0101 = 0110, 0 ^ 1 = 1, 1 ^ 1 = 0, 0 ^ 0 = 0, 1 ^ 0 = 1

MessageBox.Show(Convert.ToString(myShort,2));

short myShort2 = 3 >> 1;//shift right, 0011 >> 0001 = 0001

MessageBox.Show(Convert.ToString(myShort2,2));

short myShort3 = 5 >> 1;//shift right, 0101 >> 0001 = 0010

MessageBox.Show(Convert.ToString(myShort3, 2));

short myShort4 = 5 << 1;//shift left, 0101 >> 0001 = 1010

MessageBox.Show(Convert.ToString(myShort4, 2));

}

}

}

# 69 - Threading pt 1

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.Threading;

namespace \_69\_\_\_Threading\_pt\_1

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

Thread t;// to access thread in anyone of the methods

private void button1\_Click(object sender, EventArgs e)

{

//only way to stop is stop debugging, or task manager

//Freeze(); before background threading windows would not repond

t = new Thread(Freeze);

t.Start();

}

//threading will allow method to run in background but will not stop normally when form is closed.

void Freeze() {

for (; ; ) ;//infinate loop

}

private void Form1\_FormClosing(object sender, FormClosingEventArgs e)

{

t.Abort();//will exit out of the application running in the background.

}

}

}

**70 - Threading pt 2**

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.Threading;

//http://www.youtube.com/watch?v=2e\_dvohtZGc

namespace \_70\_\_\_Threading\_pt\_2

{

public partial class Form1 : Form//partial class here and in the also created in the designer

{

public Form1()

{

InitializeComponent();

}

//check the original code and the error refers to the designer.

//Solution Explorer on the right ,double click 'Form1.Designer.cs'

Thread t;// can call from other methods.

//created after first error message.

string myString = "";

private void button1\_Click(object sender, EventArgs e) {//other partical class in designer.

t = new Thread(Write);

t.Start();

//created after second error message.

//no event methods in threading.

while (t.IsAlive);//isalive continue do nothing and then...

textBox1.Text = myString;// this after thread is finished.

}

void Write(){

for(int i = 0;i < 1000;i++)

myString += "Chris" + i.ToString() + "\r\n";//

}

private void Form1\_FormClosing(object sender, FormClosingEventArgs e){

t.Abort();

}

}

}

# 71 Threading pt3

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.Threading;

//http://www.youtube.com/watch?v=2e\_dvohtZGc

namespace \_70\_\_\_Threading\_pt\_2

{

public partial class Form1 : Form//partial class here and in the also created in the designer

{

public Form1()

{

InitializeComponent();

}

//check the original code and the error refers to the designer.

//Solution Explorer on the right ,double click 'Form1.Designer.cs'

Thread t;// can call from other methods.

//created after first error message.

string myString = "";

private void button1\_Click(object sender, EventArgs e)

{//other partical class in designer.

t = new Thread(Write);

object[] objA = {"Bob",500 };//object array to passing two params.

t.Start(objA);//changed from last tutorial

//created after second error message.

//no event methods in threading.

while (t.IsAlive) ;//isalive continue do nothing and then...

textBox1.Text = myString;// this after thread is finished.

}

void Write(object array)//only pass an object,changed from last tutorial

{

object[] o = array as object[];//cast new object array

for (int i = 0; i < Convert.ToInt32(o.[1]); i++){

Thread.Sleep(50);//wait 50 milliseconds = .5 seconds

myString += o[0].ToString() + "\r\n";//changed from last tutorial

}

}

private void Form1\_FormClosing(object sender, FormClosingEventArgs e)

{

t.Abort();

}

}

}

# 72 - WebClient pt 1 Status Log

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.Net;

namespace \_72\_\_\_WebClient\_pt\_1\_Status\_Log

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

//way to share status with freinds

//status.txt saved in coding folder C#

private void Form1\_Load(object sender, EventArgs e)

{

WebClient wc = new WebClient();

textBox1.Text = wc.DownloadString("http://www.weebly.com/uploads/2/3/0/7/23078600/status.txt");

}

//http://dresdenmaine.weebly.com/

//http://www.weebly.com/weebly/main.php#

}

}

# 73 - WebClient Class pt 2 Downloading Files

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.Net;

namespace \_73\_\_\_WebClient\_Class\_pt\_2\_Downloading\_Files

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

//new webhost site weebly

private void button1\_Click(object sender, EventArgs e)

{

SaveFileDialog sfd = new SaveFileDialog();

if(sfd.ShowDialog()==DialogResult.OK){

WebClient wc = new WebClient();

wc.DownloadFileAsync(new Uri("http://www.weebly.com/uploads/2/3/0/7/23078600/status.txt"), sfd.FileName);//will thread auto

wc.DownloadFileCompleted += new AsyncCompletedEventHandler(wc\_DownloadFileCompleted);//tab twice to get class and event

wc.DownloadProgressChanged += new DownloadProgressChangedEventHandler(wc\_DownloadProgressChanged);//+= tab twice will finish line and add event

}

}

void wc\_DownloadProgressChanged(object sender, DownloadProgressChangedEventArgs e)

{

label1.Text = "Progress: %" + e.ProgressPercentage.ToString();//progress

}

void wc\_DownloadFileCompleted(object sender, AsyncCompletedEventArgs e)

{

MessageBox.Show("File downloaded");

}

}

}

# 74 - 76 Project 1 Email Sender pt 1

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.Net;

using System.Net.Mail;

namespace \_74\_\_\_Project\_1\_Email\_Sender\_pt\_1

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

//can use char map to get the circle for password protection.

//https://www.iconfinder.com/ 24px for email icon. download as .png

private void Form1\_Load(object sender, EventArgs e)

{

}

private void button1\_Click(object sender, EventArgs e)

{

try

{

if (textBox3.Text.Contains("@gmail.com"))

{

MessageBox.Show("Need gmail account!");

return;

}

button1.Enabled = false;

MailMessage message = new MailMessage();

message.From = new MailAddress(textBox4.Text);

message.Subject = textBox5.Text;

message.Body = textBox2.Text;

foreach (string s in textBox1.Text.Split(';'))

message.To.Add(s);

SmtpClient client = new SmtpClient();

client.Credentials = new NetworkCredential(textBox4.Text, textBox3.Text);

client.Host = "smtp.gmail.com";

client.Port = 587;

client.EnableSsl = true;

client.Send(message);

button1.Enabled = true;

MessageBox.Show("Mail sent!!");

}

catch { MessageBox.Show("Error typing message!", "Error", MessageBoxButtons.OK); }//error icon

finally { button1.Enabled = true; }

}

}

}

# 77 - DateTime Struct

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_77\_\_\_DateTime\_Struct

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

DateTime dt = new DateTime(1965, 02, 22,3,32,52);//24 hour time

MessageBox.Show(dt.ToString());

DateTime tt = DateTime.Today; //24 hour time, .now; for date and time.

MessageBox.Show(tt.ToString());

MessageBox.Show(DateTime.IsLeapYear(2012).ToString());

MessageBox.Show(DateTime.DaysInMonth(2013, 03).ToString());

MessageBox.Show(DateTime.Now.ToFileTime().ToString("x"));

DateTime ft = DateTime.FromFileTime(longFileTime);//longFileTime is from the file.

}

}

}

# 78 – DateTimePicker

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_78\_\_\_DateTimePicker

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

//http://msdn.microsoft.com/en-us/library/system.windows.forms.datetimepicker.customformat.aspx

//type code in custom format property

// set format to custom format

//change font or colors

private void button1\_Click(object sender, EventArgs e)

{

DateTime dt = dateTimePicker1.Value;

MessageBox.Show(dt.ToString());

}

}

}

# 79 - Picture Box and Image Class

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_79\_\_\_Picture\_Box\_and\_Image\_Class

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

OpenFileDialog ofd = new OpenFileDialog();

if(ofd.ShowDialog()==DialogResult.OK){

//Image image = Image.FromFile(ofd.FileName);//use with image object below.

//pictureBox1.ImageLocation = ofd.FileName;

//pictureBox1.Image = image; //image class way.

pictureBox1.ImageLocation = "http://www.midstateberkshire.com/images/aerospace.jpg";

}

}

}

}

# 80 - Clipboard Class

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_80\_\_\_Clipboard\_Class

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void Form1\_Load(object sender, EventArgs e)

{

pictureBox1.ImageLocation = "\\\\DRIVEJ\\Work\\CHRIS\\Screen Dumps\\binary.jpg";

}

private void button1\_Click(object sender, EventArgs e)

{

//textBox2.Text = Clipboard.GetText();// getText() get text out of clipboard.

pictureBox2.Image = Clipboard.GetImage();

MessageBox.Show(Clipboard.GetData(DataFormats.rtf).ToString());

try

{

Clipboard.SetText("Chris");//doesn't work thru's error

Clipboard.SetImage(pictureBox1.Image);

Clipboard.Clear();

}

catch { }

}

}

}

# 81 – ColorDialog

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_81\_\_\_ColorDialog

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

ColorDialog cd = new ColorDialog();

cd.ShowHelp = true;

cd.HelpRequest += new EventHandler(cd\_HelpRequest);//+= tab twice brings up below method.

cd.FullOpen = true;//allows default to choose custom color.

if (cd.ShowDialog()==DialogResult.OK){

button1.BackColor = cd.Color;

}

}

void cd\_HelpRequest(object sender, EventArgs e)

{

MessageBox.Show("Choose a color for the background of button");

}

}

}

# 82 - Color Struct

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_82\_\_\_Color\_Struct

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

ColorDialog cd = new ColorDialog();

if(cd.ShowDialog()==DialogResult.OK){

Color c = cd.Color;//color struct

if (c.IsNamedColor) MessageBox.Show(c.Name);//get name of color, no name for custom colors.

if (c.IsKnownColor) { MessageBox.Show(c.ToKnownColor().ToString()); }//show name of windows default colors

//KnownColor.ActiveBorder;//enum of known colors in list

Color co = Color.MintCream;//can set to a color.

MessageBox.Show(co.Name);

Color cr = Color.FromKnownColor(KnownColor.ActiveBorder);//pick color from knowncolor enum

//MessageBox.Show(cr.Name);both works my version

MessageBox.Show(cr.ToKnownColor().ToString());

//color into a 32bit int, alpha, red, green, blue, gives hex or color.

MessageBox.Show(cr.ToArgb().ToString("x")); //aabbccdd: aa = alpha, bb = red, cc = grean, dd = blue

//change hex color to a color

Color cc = Color.Black;

int i = cc.ToArgb();

Color b = Color.FromArgb(i);

button1.BackColor = b;

}

}

}

}

# 83 – FontDialog

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_83\_\_\_FontDialog

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

FontDialog fd = new FontDialog();

fd.MinSize = 10;//set size limit.

fd.MaxSize = 20;

fd.ShowColor = true; // allows user to choose color.

fd.ShowHelp = true;

fd.HelpRequest += new EventHandler(fd\_HelpRequest);//help method down below.

if(fd.ShowDialog()==DialogResult.OK){

textBox1.Font = fd.Font;

textBox1.ForeColor = fd.Color;//set with fd.showcolor = true;

}

}

void fd\_HelpRequest(object sender, EventArgs e)

{

MessageBox.Show("Help");

}

}

}

# 84 - Timer Control

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_84\_\_\_Timer\_Control

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

//1000 milliseconds = 1 second

//set timer intreval on form1.cs design properties. click timer button and choose events.

timer1.Start();

}

int i = 0;

private void timer1\_Tick(object sender, EventArgs e)

{

//new tick event

//after once second show box

//timer1.Stop();can stop timer

//MessageBox.Show("Hello"); and show in message box

i++;

textBox1.Text += i.ToString();//+= add to text sting not adding up numbers. 1 2 3 4 5 not 1+1+1+1+1

}

}

}

# 85 - Playing Sounds

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.Media; // for sound classes

namespace \_85\_\_\_Playing\_Sounds

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

//test a .wav file in player.

OpenFileDialog ofd = new OpenFileDialog();

if(ofd.ShowDialog()==DialogResult.OK){

SoundPlayer s = new SoundPlayer(ofd.FileName);

s.Play();

//s.PlayLooping();play over and over.

s.PlaySync();// freeze your application, can move to sound stops.

SystemSounds.Asterisk.Play();//use windows sounds

SystemSounds.Beep.Play();

}

}

}

}

# 86 - MaskedTextBox Control

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_86\_\_\_MaskedTextBox\_Control

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

//mask is set in the property window

//custom go to goolge.

//http://msdn.microsoft.com/en-us/library/system.windows.forms.maskedtextbox.mask.aspx

//- () are literals can't change

}

}

}

# 87 - Multiple Forms1

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_87\_\_\_Multiple\_Forms

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

this.IsMdiContainer = true;// this access this class, ismdicontainer can have forms inside of form1.

Form2 frm2 = new Form2();

frm2.MdiParent = this;//refers to form1 container

frm2.Show();//not showdialog cannot use.

Form3 Frm3 = new Form3();

Frm3.MdiParent = this;//refers to form1 container

Frm3.Show();//not showdialog cannot use.

Form4 Frm4 = new Form4();//all inside form 1

Frm4.MdiParent = this;//refers to form1 container

Frm4.Show();//not showdialog cannot use.

}

private void button2\_Click(object sender, EventArgs e)

{

//arranges minimized layout of children windows.

this.LayoutMdi(MdiLayout.ArrangeIcons);//set all the children inside container

this.LayoutMdi(MdiLayout.TileHorizontal);

}

}

}

# 89 - ComboBox Control

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_89\_\_\_ComboBox\_Control

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

//choose black arrow to edit items on form.

if (comboBox1.Text == "Chris") { MessageBox.Show("Test"); }

comboBox1.Items[0] = "Bob";

comboBox1.Items.Add("Chris");

MessageBox.Show(comboBox1.Items.Count.ToString());

}

private void comboBox1\_SelectedIndexChanged(object sender, EventArgs e)

{

MessageBox.Show("test");//event choose on form view.

}

}

}

# 90 - ProgressBar Control

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_90\_\_\_ProgressBar\_Control

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

//value can also be set in properties.

//progressBar1.Value += 10;

//progressBar1.PerformStep();//better way and set the step in the prop.

//change marquee prop, instead of blocks style previously.

progressBar1.Style = ProgressBarStyle.Marquee;

progressBar1.MarqueeAnimationSpeed = 200;//contiuous scroll accross if you don't know the end.lower the value the faster.

}

private void button2\_Click(object sender, EventArgs e)

{

progressBar1.Style = ProgressBarStyle.Blocks;

}

}

}

# 91 - 94 - ListView Control pt 1

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_91\_\_\_ListView\_Control\_pt\_1

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

//add items user enters to list.

//hit black arrow on form view to edit columns.

//black arrow view details to see headings.

//multiselect to false.

//full row select.

//grid lines to true.

ListViewItem lvi = new ListViewItem(textBox1.Text);

lvi.SubItems.Add(textBox2.Text);

lvi.SubItems.Add(textBox3.Text);

listView1.Items.Add(lvi);

textBox1.Text = "";

textBox2.Text = "";

textBox3.Text = "";

}

//choose listbox got properties and choose 'ContextMenuStrip' = ContextMenuStrip1

//context menu for right click ContextMenuStrip1 or double click

//left click ContextMenuStrip1 and box will appear for menu items to add.

//multi select to true now.

private void getNameOfToolStripMenuItem\_Click(object sender, EventArgs e)

{

if (listView1.SelectedItems.Count != 0){

MessageBox.Show(listView1.SelectedItems[0].SubItems[0].Text);

foreach(ListViewItem lvi in listView1.SelectedItems)

MessageBox.Show(lvi.SubItems[0].Text);//0 = name , 1 = age, 3 = email

}

}

private void removeSelectedItemsToolStripMenuItem\_Click(object sender, EventArgs e)

{

//double click menu to create a event handler

foreach (ListViewItem lvi in listView1.SelectedItems)

lvi.Remove();

}

private void removeAllItemsToolStripMenuItem\_Click(object sender, EventArgs e)

{

listView1.Items.Clear();

}

private void button2\_Click(object sender, EventArgs e)

{

foreach(ListViewItem lvi in listView1.Items)

if (lvi.Checked) { lvi.Remove(); }

}

//add checkbox item in property's checkboxs to true.

}

}

# 95 - ToolStrip and StatusStrip Controls

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_95\_\_\_ToolStrip\_and\_StatusStrip\_Controls

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

//click tool stip on form and goto property

//change: DisplaySytle = Text.

//change: Text = 'File'

//if use '&File' then alt-f will work.

//choose button to change image.

//https://www.iconfinder.com/

//can add seperator.

//can add status strip no code add in tutorial.

}

}

# 96 - NotifyIcon Control

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_96\_\_\_NotifyIcon\_Control

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

this.Hide(); //refer to form1 class.

notifyIcon1.ShowBalloonTip(1000,"Still Running","My Text",ToolTipIcon.Info);

}

private void notifyIcon1\_MouseDoubleClick(object sender, MouseEventArgs e)

{

//click notify icon1 goto events click 'MouseDoubleClick' to create event.

this.Show();

}

}

}

# 97 - Opening Files With Your App

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_97\_\_\_Opening\_Files\_With\_Your\_App

{

public partial class Form1 : Form

//1) right click on form and chooses view code.

{

public Form1(string s)//constructor pass path thru s string

{

//2) on solution explorer doubleclick on 'Program.cs'

InitializeComponent();

MessageBox.Show(s);//3) create message box

//copy this program to a folder and drag and drop file on top of this exe to show path in mbox.

//compile first to get exe.

}

}

}

**Program.cs**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Windows.Forms;

namespace \_97\_\_\_Opening\_Files\_With\_Your\_App

{

static class Program

{

/// <summary>

/// The main entry point for the application.

/// </summary>

[STAThread]

static void Main(string[] files)//add to main

{

Application.EnableVisualStyles();

Application.SetCompatibleTextRenderingDefault(false);

foreach(string s in files)

Application.Run(new Form1(s));//add 's' to pass

}

}

}

# 98 – Settings

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_98\_\_\_Settings

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

//on open form.

textBox1.Text = \_98\_\_\_Settings.Properties.Settings.Default.Name;

textBox2.Text = \_98\_\_\_Settings.Properties.Settings.Default.Age.ToString();

}

private void button1\_Click(object sender, EventArgs e)

{

//1) on form view click 'Project Menu', 'Settings Properties', 'Settings' a settings tab appears '98 - Setting' name of program.

//to save data(settings) of form.

\_98\_\_\_Settings.Properties.Settings.Default.Name = textBox1.Text;

\_98\_\_\_Settings.Properties.Settings.Default.Age = Convert.ToInt32(textBox2.Text);

\_98\_\_\_Settings.Properties.Settings.Default.ButtonA = button1;//saving props for button settings.

\_98\_\_\_Settings.Properties.Settings.Default.Save();

//if want to save prop for button

//no button on list but goto 'browse' on settings.

//will give you a list of namespaces that you have set above with using.

//http://www.youtube.com/watch?v=1-aPZWXYVbo

}

}

}

# 99 - 100 - TreeView Control pt 1

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_99\_\_\_101\_\_\_TreeView\_Control\_pt\_1

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

treeView1.Nodes.Add("People");

treeView1.Nodes[0].Nodes.Add("Chris");//0 rep first node "people"

treeView1.Nodes[0].Nodes.Add("Dianne");

treeView1.Nodes[0].Nodes.Add("Seth");

treeView1.Nodes.Add("Animals");

treeView1.Nodes[1].Nodes.Add("Shadow");

treeView1.Nodes[1].Nodes.Add("Cowboy");

treeView1.Nodes[1].Nodes[0].Nodes.Add("Dog");

}

private void button2\_Click(object sender, EventArgs e)

{

removeCheckedNodes(treeView1.Nodes);

//treeView1.SelectedNode.Remove();

//treeView1.Nodes.Clear();//remove all nodes.

//2) select treeview1 on form and property's change checkbox: = true.

}

List<TreeNode> tnlist = new List<TreeNode>();

void removeCheckedNodes(TreeNodeCollection tnc) {//new method for checkng & removing nodes.

foreach (TreeNode tn in tnc)

if (tn.Checked) tnlist.Add(tn);

else if (tn.Nodes.Count != 0) removeCheckedNodes(tn.Nodes);//recursion recall function inside of.

foreach (TreeNode tn in tnlist)

treeView1.Nodes.Remove(tn);

}

}

}

# 101 - TreeView pt 3 image

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_101\_\_\_TreeView\_pt\_3\_image

{

public partial class Form1 : Form

{

public Form1()

{

//1) click 'imagelist1' on form and properties 'images' and add.

//2) image size 25,25

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

// 3)

TreeNode tn = new TreeNode();

tn.Text = "Computer";

tn.ImageIndex = 0;

tn.SelectedImageIndex = 0;

treeView1.Nodes.Add(tn);

TreeNode ta = new TreeNode();

ta.Text = "Animal";

ta.ImageIndex = 1;

ta.SelectedImageIndex = 1;

treeView1.Nodes.Add(ta);

TreeNode tp = new TreeNode();

tp.Text = "NX";

tp.ImageIndex = 3;

tp.SelectedImageIndex = 3;

treeView1.Nodes[0].Nodes.Add(tp);

//4) select treeview on form goto prop and imagelist choose imagelist1 to link to treeview.

}

}

}

# 102 - Property Grid

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_102\_\_\_Property\_Grid

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

Person p = new Person();

private void button1\_Click(object sender, EventArgs e)

{

p.Name = "Chris";

p.Age = 20;

p.Email = "cdpaine2003@yahoo.com";

propertyGrid1.SelectedObject = p;

Reload();

}

void Reload() {

textBox1.Text = p.Name;

textBox2.Text = p.Age.ToString();

textBox3.Text = p.Email;

}

private void propertyGrid1\_PropertyValueChanged(object s, PropertyValueChangedEventArgs e)

{

//form view click on propertygrid1 goto prop and click on events and doubleclick on propertyvaluechanged to generat this.

Reload();//reload method

//form view prop select 'selectedObject' choose button1 and at runtime can get propery's for button1 or any object is set.

}

}

class Person {

public string Name

{

get;

set;

}

public int Age

{

get;

set;

}

public string Email

{

get;

set;

}

}

}

# 103 - Accessing All Controls pt 1

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_103\_\_\_Accessing\_All\_Controls\_pt\_1

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

accessAll(this.Controls);

//foreach (Control c in this.Controls) 1) first run did all but,

//c.Text = "Chris";//changes all but did not change control inside of group container.

}

void accessAll(Control.ControlCollection cc) {

foreach (Control c in cc)

{

c.Text = "Paine";

if (c.HasChildren) accessAll(c.Controls);//2) recursion to check for children inside group container.

}

}

}

}

# 104 - Accessing All Controls pt 2

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_104\_\_\_Accessing\_All\_Controls\_pt\_2

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click\_1(object sender, EventArgs e)

{

accessAll(this.Controls);

}

void accessAll(Control.ControlCollection cc)

{

foreach (Control c in cc)

{

//c.Enabled = false; all controls

if (c is Button)

{

Button b = c as Button;

b.Click += new EventHandler(b\_Click);//tab tab after the += generate event handler.

}

if(c is CheckBox){

CheckBox ch = c as CheckBox;

ch.Checked = true;

}

if (c.HasChildren) accessAll(c.Controls);

}

}

void b\_Click(object sender, EventArgs e)

{

MessageBox.Show("You click a button!");

}

//http://www.youtube.com/watch?v=MEu3Y5cTwZI

}

}

# 105 - WebBrowser Control MS pt 1

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_105\_\_\_WebBrowser\_Control\_pt\_1

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

webBrowser1.Navigate(textBox1.Text);

}

private void webBrowser1\_Navigated(object sender, WebBrowserNavigatedEventArgs e)

{

//form prop'navigated' to create this event.

//browser build off of ie.

textBox1.Text = webBrowser1.Url.ToString();

}

private void button2\_Click(object sender, EventArgs e)

{

webBrowser1.GoBack();

}

private void button3\_Click(object sender, EventArgs e)

{

webBrowser1.Refresh();

}

private void button4\_Click(object sender, EventArgs e)

{

textBox1.Text = "http://www.midstateberkshire.com/";

webBrowser1.Navigate(textBox1.Text);

}

private void Form1\_Load(object sender, EventArgs e)

{

//textBox1.Text = "http://www.berkshireindustries.com/";

//webBrowser1.Navigate(textBox1.Text);

}

}

}

# 106 - WebBrowser Control pt 2

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_106\_\_\_WebBrowser\_Control\_pt\_2

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

WebBrowser wb = new WebBrowser();

private void button1\_Click(object sender, EventArgs e)

{

wb.Navigate("http://halo.bungie.net/stats/default.aspx?player" + textBox1.Text + "&sg=0");

wb.DocumentCompleted += new WebBrowserDocumentCompletedEventHandler(wb\_DocumentCompleted);

}

void wb\_DocumentCompleted(object sender, WebBrowserDocumentCompletedEventArgs e)

{

//to get element right click on chrome and choose inspect element. doubleclick and get id.

label1.Text = "Bungie.net " + wb.Document.GetElementById("ctl00\_TopContentArea\_noStatsMessage").InnerText;

}

}

}

# 107 - WebBrowser Control pt 3

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_107\_\_\_WebBrowser\_Control\_pt\_3

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

webBrowser1.Document.GetElementById("p\_13838465-p").InnerText = textBox1.Text;//goto url right click to 'inpect element' get id, copy/paste.

}

private void button2\_Click(object sender, EventArgs e)

{

webBrowser1.Document.GetElementById("search-submit").InvokeMember("Click");//search button

//could not find script to search for click event on webpage.

}

}

}

# 108 - TrackBar and NumericUpDown Controls

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_108\_\_\_TrackBar\_and\_NumericUpDown\_Controls

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

//form prop can set the max,min, tick frequency

//horiz or vert on prop on form view.

//can change tick side or disable.

private void button1\_Click(object sender, EventArgs e)

{

MessageBox.Show(trackBar1.Value.ToString());

}

private void numericUpDown1\_ValueChanged(object sender, EventArgs e)

{

//masked textbox

//can change on prop form view:

//min/max

//increment

}

}

}

# 109 - Reading XML pt 1

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.Xml; // for xml stuff

namespace \_109\_\_\_Reading\_XML\_pt\_1

{

public partial class Form1 : Form

{

//a way of storing data.

//uses nodes similar as trees.

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

OpenFileDialog ofd = new OpenFileDialog();

ofd.Filter = "XML|\*.xml";

if(ofd.ShowDialog()==DialogResult.OK){

XmlDocument xdoc = new XmlDocument();

xdoc.Load(ofd.FileName);

MessageBox.Show(xdoc.SelectSingleNode("people/person/name").InnerText);//give path of nodes

MessageBox.Show(xdoc.SelectSingleNode("people/person/Age").InnerText);//give path of nodes

}

}

}

}

//example of nodes in xml

//<people>

// <person>

// <name>Adam</name>

// <Age>15</Age>

// <Email>address@gmail.com</Email>

// </person>

//</people

# 110 - Reading xml pt2

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.Xml; // for xml stuff

namespace \_110\_\_\_Reading\_xml\_pt2

{

public partial class Form1 : Form

{

//a way of storing data.

//uses nodes similar as trees.

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

OpenFileDialog ofd = new OpenFileDialog();

ofd.Filter = "XML|\*.xml";

if(ofd.ShowDialog()==DialogResult.OK){

XmlDocument xdoc = new XmlDocument();

xdoc.Load(ofd.FileName);//data from weebly site I created.

foreach(XmlNode xn in xdoc.SelectNodes("people/person"))

MessageBox.Show(xdoc.SelectSingleNode("name").InnerText);//will cycle names.

}

}

}

}

//example of nodes in xml

//<people>

// <person>

// <name>Adam</name>

// <Age>15</Age>

// <Email>address@gmail.com</Email>

// </person>

//</people

# 111 - Editing XML File

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.Xml;

namespace \_111\_\_\_Editing\_XML\_File

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

XmlDocument xDoc;

string path;

private void button1\_Click(object sender, EventArgs e)

{

OpenFileDialog ofd = new OpenFileDialog();

ofd.Filter = "XML | \*.xml";

if(ofd.ShowDialog()==DialogResult.OK){

path = ofd.FileName;

xDoc = new XmlDocument();

xDoc.Load(path);

textBox2.Text = xDoc.SelectSingleNode("People/Person/Name").InnerText;

numericUpDown1.Value = Convert.ToInt32(xDoc.SelectSingleNode("People/Person/Age").InnerText);

textBox3.Text = xDoc.SelectSingleNode("People/Person/Email").InnerText;

}

}

private void button2\_Click(object sender, EventArgs e)

{

xDoc.SelectSingleNode("People/Person/Name").InnerText = textBox2.Text;

xDoc.SelectSingleNode("People/Person/Age").InnerText) = numericUpDown1.Value.ToString();

}

}

}

# 112 - Writing New XML file

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.Xml;

namespace \_112\_\_\_Writing\_New\_XML\_file

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

XmlTextWriter xtw = new XmlTextWriter("C:\\Users\\cpaine\\Desktop\\TestFolder\\xdoc1.xml",Encoding.UTF8);

xtw.Formatting = Formatting.Indented;

xtw.WriteStartElement("People");

xtw.WriteStartElement("Person");

xtw.WriteStartElement("Name");

xtw.WriteString(textBox1.Text);

xtw.WriteEndElement();

xtw.WriteStartElement("Age");

xtw.WriteString(numericUpDown1.Value.ToString());

xtw.WriteEndElement();

xtw.WriteStartElement("Email");

xtw.WriteString(textBox2.Text);

xtw.WriteEndElement();

xtw.WriteEndElement();

xtw.Close();

}

}

}

# 113 - Write Nodes to Existing XML File

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.Xml;

namespace \_113\_\_\_Write\_Nodes\_to\_Existing\_XML\_File

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

XmlDocument doc = new XmlDocument();

doc.Load("C:\\Users\\cpaine\\Desktop\\TestFolder\\xdoc1.xml");

XmlNode person = doc.CreateElement("Person");//create pearson

XmlNode name = doc.CreateElement("Name");//create name

name.InnerText = textBox1.Text;

person.AppendChild(name);//add to name node

XmlNode age = doc.CreateElement("Age");

age.InnerText = numericUpDown1.Value.ToString();

person.AppendChild(age);

XmlNode email = doc.CreateElement("Email");

email.InnerText = textBox1.Text;

person.AppendChild(email);

doc.DocumentElement.AppendChild(person);//add to person node

doc.Save("C:\\Users\\cpaine\\Desktop\\TestFolder\\xdoc1.xml");

}

}

}

# 114 - Deleting a XML Node

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.Xml;

namespace \_114\_\_\_Deleting\_a\_XML\_Node

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

XmlDocument xdoc = new XmlDocument();

xdoc.Load("C:\\Users\\cpaine\\Desktop\\TestFolder\\xdoc1.xml");

//can change the Name to age if you want to remove nodes using age.

foreach (XmlNode xNode in xdoc.SelectNodes("People/Person"))

if (xNode.SelectSingleNode("Name").InnerText == textBox1.Text) xNode.ParentNode.RemoveChild(xNode);

xdoc.Save("C:\\Users\\cpaine\\Desktop\\TestFolder\\xdoc1.xml");

}

}

}

# 115 - MD5 and SHA1

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.Security.Cryptography;

namespace \_115\_\_\_MD5\_and\_SHA1

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

//hash a bunch of data to check if some tampered with data.

//calc by computer

//md5 16 bytes long

//sha1 20 bytes

//MD5CryptoServiceProvider md5 = new MD5CryptoServiceProvider();

//Encoding utf8 = new UTF8Encoding();

//MessageBox.Show(BitConverter.ToString(md5.ComputeHash(utf8.GetBytes(textBox1.Text))));

SHA1CryptoServiceProvider sha1 = new SHA1CryptoServiceProvider();

UTF8Encoding utf8 = new UTF8Encoding();

MessageBox.Show(BitConverter.ToString(sha1.ComputeHash(utf8.GetBytes(textBox1.Text))));

}

}

}

# 116 - TripleDES Encryption

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.Security.Cryptography;

namespace \_116\_\_\_TripleDES\_Encryption

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

MD5CryptoServiceProvider md5 = new MD5CryptoServiceProvider();

UTF8Encoding utf8 = new UTF8Encoding();

TripleDESCryptoServiceProvider tdes = new TripleDESCryptoServiceProvider();

tdes.Key = md5.ComputeHash(utf8.GetBytes(textBox1.Text));//set up key out of hash.

tdes.Mode = CipherMode.ECB;

tdes.Padding = PaddingMode.PKCS7;

ICryptoTransform trans = tdes.CreateEncryptor();

textBox3.Text = BitConverter.ToString(trans.TransformFinalBlock(utf8.GetBytes(textBox2.Text),0, utf8.GetBytes(textBox2.Text).Length));

}

}

}

# 117 - TripleDES Decryption

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.Security.Cryptography;

namespace \_117\_\_\_TripleDES\_Decryption

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

byte[] encrypted;

private void button1\_Click(object sender, EventArgs e)

{

MD5CryptoServiceProvider md5 = new MD5CryptoServiceProvider();

UTF8Encoding utf8 = new UTF8Encoding();

TripleDESCryptoServiceProvider tdes = new TripleDESCryptoServiceProvider();

tdes.Key = md5.ComputeHash(utf8.GetBytes(textBox1.Text));

tdes.Mode = CipherMode.ECB;

tdes.Padding = PaddingMode.PKCS7;

ICryptoTransform trans = tdes.CreateEncryptor();

encrypted = trans.TransformFinalBlock(utf8.GetBytes(textBox2.Text), 0, utf8.GetBytes(textBox2.Text).Length);

textBox3.Text = BitConverter.ToString(encrypted);

}

private void button2\_Click(object sender, EventArgs e)

{

MD5CryptoServiceProvider md5 = new MD5CryptoServiceProvider();

UTF8Encoding utf8 = new UTF8Encoding();

TripleDESCryptoServiceProvider tdes = new TripleDESCryptoServiceProvider();

tdes.Key = md5.ComputeHash(utf8.GetBytes(textBox4.Text));

tdes.Mode = CipherMode.ECB;

tdes.Padding = PaddingMode.PKCS7;

ICryptoTransform trans = tdes.CreateDecryptor();

textBox5.Text = utf8.GetString(trans.TransformFinalBlock(encrypted, 0, encrypted.Length));

}

}

}

# 118 - Drag and Drop

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_118\_\_\_Drag\_and\_Drop

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void panel1\_DragOver(object sender, DragEventArgs e)

{

//prop: set border

//prop: allow drop = true

//panel events: dragover

e.Effect = DragDropEffects.All;//drop any file on drop

}

private void panel1\_DragDrop(object sender, DragEventArgs e)

{

//event: dragdrop

//cast to string array

string[] files = e.Data.GetData(DataFormats.FileDrop) as string[];

foreach (string s in files)

{

MessageBox.Show(s);

}

}

}

}

# 119 - Drawing Shapes

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_119\_\_\_Drawing\_Shapes

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void panel1\_Click(object sender, EventArgs e)

{

//event: click

SolidBrush sb = new SolidBrush(Color.Red);

Graphics g = panel1.CreateGraphics();

g.FillEllipse(sb, 20, 20, 50, 50);//0,0 top left in pixels

g.FillRectangle(sb, 20, 20, 50, 50);

}

}

}

# 120 - Drawing More Shapes

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_120\_\_\_Drawing\_More\_Shapes

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void panel1\_Click(object sender, EventArgs e)

{

SolidBrush sb = new SolidBrush(Color.Blue);

Graphics g = panel1.CreateGraphics();

g.FillPie(sb,20,20,60,60,0,270);//sweeps clockwise

Point[] points = { new Point(0, 20), new Point(0, 0), new Point(20, 0) }; //points array

g.FillPolygon(sb,points);

}

}

}

# 121 - Drawing with Pen Class pt 1

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_121\_\_\_Drawing\_with\_Pen\_Class\_pt\_1

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void panel1\_Click(object sender, EventArgs e)

{

//event: click

Pen pen = new Pen(Color.Red,1);//change line thichnes in pixs

Graphics g = panel1.CreateGraphics();

g.DrawRectangle(pen, 20, 20, 50, 50);//just outline of rect

g.DrawEllipse(pen, 20, 20, 50, 50);

Point[] points = { new Point(0,20), new Point(0,0), new Point(20,0) };

g.DrawPolygon(pen, points);

}

}

}

# 122 - Drawing With Pen Class pt 2

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_122\_\_\_Drawing\_With\_Pen\_Class\_pt\_2

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void panel1\_Click(object sender, EventArgs e)

{

Pen pen = new Pen(Color.Red,2);

Graphics g = panel1.CreateGraphics();

g.DrawArc(pen,20,20,100,100,0,180);

g.DrawBezier(pen,new Point (20,20), new Point(30,60),new Point (70,40), new Point (50,80));

g.DrawLine(pen, new Point(0,0), new Point(100,100));

}

}

}

# 123 - Drawing Strings Text

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_123\_\_\_Drawing\_Strings\_Text

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void panel1\_Click(object sender, EventArgs e)

{

SolidBrush s = new SolidBrush(Color.Blue);

Graphics g = panel1.CreateGraphics();

FontFamily ff = new FontFamily("Arial");

System.Drawing.Font font = new System.Drawing.Font(ff,50);//font size after ff 50

g.DrawString("Chris", font, s, new PointF(20, 20));

}

}

}

# 124 – LinearGradientBrush

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.Drawing.Drawing2D;

namespace \_124\_\_\_LinearGradientBrush

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void panel1\_Click(object sender, EventArgs e)

{

LinearGradientBrush lgb = new LinearGradientBrush(new Point(20,20), new Point(20,70),Color.Red, Color.Yellow);//second point to 70,20 to change gradiant direction.

Graphics g = panel1.CreateGraphics();

g.FillRectangle(lgb,20,20,50,50);

g.FillEllipse(lgb,20,20,50,50);

}

}

}

# 125 - Multiple Colors in a LinearGradientBrush

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.Drawing.Drawing2D;

namespace \_125\_\_\_Multiple\_Colors\_in\_a\_LinearGradientBrush

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void panel1\_Click(object sender, EventArgs e)

{

LinearGradientBrush lgb = new LinearGradientBrush(new Point(20,20),new Point(20,70),Color.Black,Color.Red);

Graphics g = panel1.CreateGraphics();

ColorBlend cb = new ColorBlend();

cb.Colors = new Color[] { Color.Black,Color.Blue,Color.White};

//float array diff between two number be equal .5 between each number.

cb.Positions = new float[] { 0, .5F,1F};//float array, postions center of color, black,blue,white, F to convert to float.

lgb.InterpolationColors = cb;

g.FillRectangle(lgb,20,20,50,50);

}

}

}

# 126 - PathGradientBrush pt 1

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.Drawing.Drawing2D;

namespace \_126\_\_\_PathGradientBrush\_pt\_1

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void panel1\_Click(object sender, EventArgs e)

{

GraphicsPath gp = new GraphicsPath();

gp.AddEllipse(20,20,50,50);

PathGradientBrush pgb = new PathGradientBrush(gp);

pgb.CenterColor = Color.Red;

pgb.SurroundColors = new Color[] {Color.Yellow };

Graphics g = panel1.CreateGraphics();

g.FillEllipse(pgb,20,20,50,50);//creates like a 3d ball.

}

}

}

# 127 - PathGradientBrush pt 2

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

using System.Drawing.Drawing2D;

namespace \_127\_\_\_PathGradientBrush\_pt\_2

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void panel1\_Click(object sender, EventArgs e)

{

////GraphicsPath gp = new GraphicsPath();

////Point[] points = { new point(20,20), new Point(20,70), new Point(70,20)};

////gp.AddPolygon(points);

////PathGradientBrush pgb = new PathGradientBrush(gp);

////pgb.CenterColor = Color.White;

////pgb.SurroundColors = new Color[] { Color.Black};

////Graphics g = panel1.CreateGraphics();

////g.FillPolygon(pgb,points);

GraphicsPath gp = new GraphicsPath();

Rectangle r = new Rectangle(20, 20, 50, 50);

gp.AddRectangle(r);

PathGradientBrush pgb = new PathGradientBrush(gp);

pgb.CenterColor = Color.White;

pgb.SurroundColors = new Color[] { Color.Black };

Graphics g = panel1.CreateGraphics();

g.FillRectangle(pgb, r);

}

}

}

# 128 - 132 Project 2 Paint Program pt 1

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_128\_\_\_Project\_2\_Paint\_Program\_pt\_1

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

g = panel1.CreateGraphics();//in constructor as soon form created.

}

bool canPaint = false;

Graphics g;

private void panel1\_MouseDown(object sender, MouseEventArgs e)

{

canPaint = true;

if (drawSquare) {

SolidBrush s = new SolidBrush(toolStripButton1.ForeColor);

g.FillRectangle(s, e.X, e.Y, Convert.ToInt32(toolStripTextBox2.Text), Convert.ToInt32(toolStripTextBox2.Text));

canPaint = false;

drawSquare = false;

}

else if (drawRectangle) {

SolidBrush s = new SolidBrush(toolStripButton1.ForeColor);

g.FillRectangle(s, e.X, e.Y, Convert.ToInt32(toolStripTextBox2.Text) \* 2, Convert.ToInt32(toolStripTextBox2.Text));

canPaint = false;

drawRectangle = false;

}

else if (drawCircle){

SolidBrush s = new SolidBrush(toolStripButton1.ForeColor);

//g.DrawEllipse(s, e.X, e.Y, 50, 50);

canPaint = false;

drawCircle = false;

}

}

private void panel1\_MouseUp(object sender, MouseEventArgs e)

{

canPaint = false;

prevX = null;

prevY = null;

}

int? prevX = null;

int? prevY = null;

private void panel1\_MouseMove(object sender, MouseEventArgs e)

{

if (canPaint)

{

//SolidBrush s = new SolidBrush(Color.Black);

//g.FillEllipse(s,e.X,e.Y, Convert.ToInt32(toolStripTextBox1.Text), Convert.ToInt32(toolStripTextBox1.Text));

Pen pen = new Pen(toolStripButton1.ForeColor, float.Parse(toolStripTextBox1.Text));

g.DrawLine(pen, new Point(prevX ?? e.X, prevY ?? e.Y), new Point(e.X, e.Y));

prevX = e.X;

prevY = e.Y;

}

}

private void toolStripButton1\_Click(object sender, EventArgs e)

{

ColorDialog cd = new ColorDialog();

if (cd.ShowDialog() == DialogResult.OK)

{

toolStripButton1.ForeColor = cd.Color;

}

}

private void toolStripButton2\_Click(object sender, EventArgs e)

{

g.Clear(panel1.BackColor);

}

private void toolStripButton3\_Click(object sender, EventArgs e)

{

ColorDialog cd = new ColorDialog();

if (cd.ShowDialog() == DialogResult.OK)

{

toolStripButton3.ForeColor = cd.Color;

panel1.BackColor = cd.Color;

}

}

bool drawSquare = false;

private void squareToolStripMenuItem\_Click(object sender, EventArgs e){

drawSquare = true;

}

bool drawRectangle = false;

private void rectangelToolStripMenuItem\_Click(object sender, EventArgs e){

drawRectangle = true;

}

bool drawCircle = false;

private void circleToolStripMenuItem\_Click(object sender, EventArgs e)

{

drawCircle = true;

}

private void panel1\_DragDrop(object sender, DragEventArgs e)

{

string[] imagePaths = (string[])e.Data.GetData(DataFormats.FileDrop);

foreach (string path in imagePaths) {

g.DrawImage(Image.FromFile(path), new Point(0,0));

}

}

private void panel1\_DragEnter(object sender, DragEventArgs e)

{

e.Effect = DragDropEffects.All;

}

}

}

# 133 – 138 Making Controls pt1- pt6

**myButton.cs**

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Drawing;

using System.Data;

using System.Linq;

using System.Text;

using System.Windows.Forms;

//http://www.youtube.com/watch?v=6WMT1jojpZs

namespace \_133\_\_\_Making\_Controls\_pt\_1

{

public partial class myButton : UserControl//inherites from usercontrol class, we want to override

{

//1) project choose 'add windows forms...' and choose 'user control'

// opens a design window.

// size of cotrol when user drops to his form.

//2) click view code.

public myButton()

{

InitializeComponent();

}

//type 'override onpaint' will type out the below.

string text = "";

protected override void OnPaint(PaintEventArgs e)//note protected

{

DrawButton(Color.FromKnownColor(KnownColor.Control));

}

//3) do 'build' to see test label

//set property getter setter , build to show 'buttonText' in prop

public string buttonText {

get { return text; }

set { text = value; }

}

private void myButton\_MouseHover(object sender, EventArgs e)

{

Color myColor = Color.FromArgb(255, Color.FromKnownColor(KnownColor.Control).R -30, Color.FromKnownColor(KnownColor.Control).R-5, 255);

DrawButton(myColor);

}

void DrawButton(Color c) {

SolidBrush s = new SolidBrush(Color.FromKnownColor(KnownColor.Control));//background color matches forecolor.

Graphics g = this.CreateGraphics();//this refers to the control.

g.FillRectangle(s, 0, 0, this.Width, this.Height);

s.Color = Color.FromArgb(255, c.R - 13, c.G - 13, c.B - 13);

//4) use math to center things.

g.FillRectangle(s, 0, this.Height / 2, this.Width, this.Height / 2);

PointF fpoint = new Point((this.Width / 2) - (text.Length), (this.Height / 2) - (text.Length));//to draw in center h,w.

FontFamily ff = new FontFamily("Arial");

Font f = new System.Drawing.Font(ff, 8);

g.DrawString(text, f, s, fpoint);

s.Color = Color.Black;

}

private void myButton\_Leave(object sender, EventArgs e)

{

DrawButton(Color.FromKnownColor(KnownColor.Control));

}

private void myButton\_MouseEnter(object sender, EventArgs e)

{

Color myColor = Color.FromArgb(255, Color.FromKnownColor(KnownColor.Control).R - 30, Color.FromKnownColor(KnownColor.Control).R - 5, 255);

DrawButton(myColor);

}

}

}

# 139 - Inheriting From Existing Controls

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_133\_\_\_Making\_Controls\_pt\_1

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void userControl11\_Click(object sender, EventArgs e)

{

MessageBox.Show("I am adam");

}

}

}

**myButton.cs**

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Drawing;

using System.Data;

using System.Linq;

using System.Text;

using System.Windows.Forms;

//http://www.youtube.com/watch?v=6WMT1jojpZs

namespace \_133\_\_\_Making\_Controls\_pt\_1

{

public partial class myButton : Button//inherites from usercontrol class, we want to override

{

public override string Text

{

get

{

return base.Text;

}

set

{

if (value == "Adam")

{

MessageBox.Show("You are not authorized to use that name.");

base.Text = "Usercontrol";

return;

}

base.Text = value;

}

}

protected override void OnClick(EventArgs e)

{

MessageBox.Show("Test");

base.OnClick(e);

}

}

}

**140 Splash Screen.**

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_140\_\_\_Splash\_Screen

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void Form1\_FormClosed(object sender, FormClosedEventArgs e)

{

Application.Exit();

}

}

}

**splashScreen.cs**

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Windows.Forms;

namespace \_140\_\_\_Splash\_Screen

{

//Classes Program.cs

//Application.Run(new splashScreen()); change from new form1 to new splashScreen()

//Class splashScreen.cs

//dock picture box to form.

public partial class splashScreen : Form

{

public splashScreen()

{

InitializeComponent();

}

Timer t;

private void splashScreen\_Shown(object sender, EventArgs e)

{

t = new Timer();

t.Interval = 2000;

t.Start();

t.Tick += new EventHandler(t\_Tick);

}

void t\_Tick(object sender, EventArgs e)

{

t.Stop();

Form1 f = new Form1();

f.Show();

this.Hide();

}

}

}

# 141 Making a DLL

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

using System.Windows.Forms;

using MyDll.Clients;// from the dll you created will give you access to dll class.

namespace \_141\_\_\_Making\_a\_DLL

{

//dll dynamic link library

//put all your namespace in dll to share

//people can't see into dll.

//new project class library

//create dll build and save.

//open solution explorer and rightclick 'choose add reference'

//will add mydll that you created to reference folder.

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

}

}

# 142 Internal Access Modifier

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

using System.Windows.Forms;

namespace \_142\_\_\_Internal\_Access\_Modifier

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

//can't access internal classes

}

}

}

**Class1.cs**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

//internal access modifier

//can only access something within the same project.

namespace \_142\_\_\_Internal\_Access\_Modifier

{

namespace myDLL

{

internal class Client

{

internal string Name//if make the above class public and only access Name in this class.

{

get;

set;

}

internal int Height = 25;// only accesss in project.

public int Age

{

get;

set;

}

public string Email

{

get;

set;

}

class MyClass

{

void myMethod()

{

Client.MyClass c = new MyClass();

//icon shows envelope in intellisense to tell you it is internal.

}

}

}

}

}

# 143 Comments and Descriptions

**Class1.c**using System;  
using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace \_143\_\_\_Comments\_and\_Descriptions

{

namespace Clients

{

class Class1

{

/// <summary>//doesn't work in 2012 version.

/// for summary

/// </summary>

//line comments

/\*

\*

\*

\*

\* large or multi lines of code

\*

\*

\*

\*/

}

//public time ()

//{

//this.code;

//}

}

}

//Class1.

# 144 Goto Keyword and Regions

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

using System.Windows.Forms;

namespace \_144\_\_\_Goto\_Keyword\_and\_Regions

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

string chris = "blah";

switch (chris)

{

case "chris":

MessageBox.Show("Hello");//goes here last because of goto

break;

default:

MessageBox.Show("the default.");

goto case "chris";

}

goto myCode;

myCode:

{

MessageBox.Show("Test");

}

//can create regions.

#region myRegion

/\* can hide

\* bunch of code

\*/

#endregion

}

}

}

# 145 Capturing Screen

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

using System.Windows.Forms;

using System.Threading;//for motion of images

namespace \_145\_\_\_Capturing\_Screen

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

//for single image without the threading

Bitmap b = new Bitmap(Screen.PrimaryScreen.WorkingArea.Width, Screen.PrimaryScreen.WorkingArea.Height);//create total capture

Graphics g = Graphics.FromImage(b);

g.CopyFromScreen(Point.Empty, Point.Empty, Screen.PrimaryScreen.WorkingArea.Size);

pictureBox1.Image = b;

// for multi capture.

//Thread t = new Thread(threadedCode);

//t.Start();

}

//void threadedCode()

//{

// for (; ; )

// {

// Bitmap b = new Bitmap(Screen.PrimaryScreen.WorkingArea.Width, Screen.PrimaryScreen.WorkingArea.Height);//create total capture

// Graphics g = Graphics.FromImage(b);

// g.CopyFromScreen(Point.Empty, Point.Empty, Screen.PrimaryScreen.WorkingArea.Size);

// pictureBox1.Image = b;

// }

//}

}

}

# 146 Making Keyboard Shortcuts

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

using System.Windows.Forms;

namespace \_146\_\_\_Making\_Keyboard\_Shortcuts

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void Form1\_KeyDown(object sender, KeyEventArgs e)

{

//set keypreview of form to true

//use this event

if (e.Control && e.KeyCode.ToString() == "A") ;//control a

{

MessageBox.Show("control-A");

}

}

private void textBox1\_KeyDown(object sender, KeyEventArgs e)

{

if (e.Alt && e.KeyCode.ToString() == "F");//alt- a

{

MessageBox.Show("alt-f");

}

}

}

}

# 147 Checking Controls on Leave

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

using System.Windows.Forms;

namespace \_147\_\_\_Checking\_Controls\_on\_Leave

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

comboBox1.SelectedIndex = 0;

}

private void textBox1\_Leave(object sender, EventArgs e)

{

if (textBox1.Text == "")

{

MessageBox.Show("You must provide a name!");

textBox1.Select();

}

}

private void comboBox1\_Leave(object sender, EventArgs e)

{

if (comboBox1.SelectedIndex == 0)

{

MessageBox.Show("You must select a country!");

comboBox1.Select();//user back to combobox

}

}

}

}

# 148 - 151 Overloading Operators pt 1-4

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

using System.Windows.Forms;

namespace \_148\_\_\_151\_Overloading\_Operators\_pt\_1\_4

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

Item item1 = new Item();

item1.Price = 4;

Item item2 = new Item();

item2.Price = 6;

Item item3 = item1 + item2;

MessageBox.Show(item3.Price.ToString());

//lesson 02

Item item4 = new Item();

item4.Price = 5;

Item item5 = new Item();

item5.Price = 5;

if (item3 == item4) MessageBox.Show("equal");

//lesson 03

Item item8 = new Item();

item8.Price = 3;

Item item9 = new Item();

item9.Price = 6;

if (item8 > item9) MessageBox.Show("greater than");

//lesson 04

Item i = new Item();

i.Price = 2;

i++;

MessageBox.Show(i.Price.ToString());

}

}

class Item

{

public int Price

{

get;

set;

}

//overload plus opperator

public static Item operator +(Item i1, Item i2)//return type Item

{

Item i3 = new Item();

i3.Price = i1.Price + i2.Price;

return i3;

}

//lesson 02

//overloading ==

public static bool operator ==(Item i4, Item i5)

{

return (i4.Price == i4.Price) ? true : false;//tenary if

}

public static bool operator !=(Item i4, Item i5)

{

return (i4.Price != i5.Price) ? true : false;//tenary if

}

//lesson 03 overloading

public static bool operator <(Item item8, Item item9)

{

return (item8.Price < item9.Price) ? true : false;

}

public static bool operator >(Item item8, Item item9)

{

return (item8.Price > item9.Price) ? true : false;

}

//lesson 04 overloading ++ --

public static Item operator ++(Item item)

{

Item i = new Item();//can't return int so need to do below

i.Price = item.Price + 1;

return i;

//didn't have to overload the -- operator

}

public static Item operator --(Item item)

{

Item i = new Item();//can't return int so need to do below

i.Price = item.Price - 1;

return i;

}

}

# 152 Making Conversion Operators

using System;

using System.Collections.Generic;

using System.ComponentModel;

using System.Data;

using System.Drawing;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

using System.Windows.Forms;

namespace \_152\_\_\_Making\_Conversion\_Operators

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

//Item i = (Item)3; //Explicit

Item item = 3; // auto converts Implicit

MessageBox.Show(item.Price.ToString());

}

}

class Item

{

//explict user has to do something.

//implict done automatic.

public int Price

{

get;

set;

}

//public static explicit operator Item(int itemPrice)

//{

// Item i = new Item();

// i.Price = itemPrice;

// return i;

//}

public static implicit operator Item(int itemPrice)

{

Item i = new Item();

i.Price = itemPrice;

return i;

}

}

}