using System;

namespace DPL1

{

// Factory

interface GUIFactory

{

Button CreateButton();

CheckBox CreateCheckBox();

}

class WinFactory : GUIFactory

{

public Button CreateButton()

{

Console.WriteLine("WinButton was created");

return new WinButton();

}

public CheckBox CreateCheckBox()

{

Console.WriteLine("WinCheckBox was created");

return new WinCheckBox();

}

}

class MacFactory : GUIFactory

{

public Button CreateButton()

{

Console.WriteLine("MacButton was created");

return new MacButton();

}

public CheckBox CreateCheckBox()

{

Console.WriteLine("MacCheckBox was created");

return new MacCheckBox();

}

}

// Button

abstract class Button

{

public abstract void Show();

}

class WinButton : Button

{

public override void Show()

{

Console.WriteLine("I am WinButton");

}

}

class MacButton : Button

{

public override void Show()

{

Console.WriteLine("I am MacButton");

}

}

// CheckBox

abstract class CheckBox

{

public abstract void Show();

}

class WinCheckBox : CheckBox

{

public override void Show()

{

Console.WriteLine("I am WinCheckBox");

}

}

class MacCheckBox : CheckBox

{

public override void Show()

{

Console.WriteLine("I am MacCheckBox");

}

}

// Application

class Application

{

GUIFactory? factory;

public Application(GUIFactory? factory)

{

this.factory = factory;

}

void CreateUI()

{

Console.WriteLine(factory.CreateButton());

Console.WriteLine(factory.CreateCheckBox());

}

}

class Program

{

static void Main()

{

Console.WriteLine("Windows 1");

Console.WriteLine("Mac 2");

int no = int.Parse(Console.ReadLine());

GUIFactory factory;

if (no == 1)

{

Console.Clear();

Console.WriteLine("WinFactory was created");

factory = new WinFactory();

Button winButton = factory.CreateButton();

winButton.Show();

CheckBox winCheckBox = factory.CreateCheckBox();

winCheckBox.Show();

}

else

{

Console.Clear();

Console.WriteLine("MacFactory was created");

factory = new MacFactory();

Button macButton = factory.CreateButton();

macButton.Show();

CheckBox macCheckBox = factory.CreateCheckBox();

macCheckBox.Show();

}

Application app = new Application(factory);

}

}

}