 // Program.cs

using System;

namespace LabExercise2\_Instrument

{

// Base class for all instruments

public class Instrument

{

// Properties of the instrument

public string InstrumentName { get; set; }

public string Brand { get; set; }

public string ModelName { get; set; }

public string Type { get; set; }

// Constructor to initialize instrument properties

public Instrument(string instrumentName, string brand, string modelName, string type)

{

InstrumentName = instrumentName;

Brand = brand;

ModelName = modelName;

Type = type;

}

// Virtual method to display instrument details.

// This can be overridden by derived classes for specific details.

public virtual void DisplayDetails()

{

Console.WriteLine($"\nInstrument Name: {InstrumentName}");

Console.WriteLine($"Brand: {Brand}");

Console.WriteLine($"Model Name: {ModelName}");

Console.WriteLine($"Type: {Type}");

}

}

// Derived class for Drums, inheriting from Instrument

public class Drums : Instrument

{

// Specific property for drums (the sound they make)

public string DrumSound { get; set; }

// Constructor for Drums, calling the base class constructor

public Drums(string instrumentName, string brand, string modelName, string type, string drumSound)

: base(instrumentName, brand, modelName, type)

{

DrumSound = drumSound;

}

// Override the DisplayDetails method to add drum-specific information

public override void DisplayDetails()

{

base.DisplayDetails(); // Call the base class method to display common details

Console.WriteLine("Wow! Nice Drums!");

Console.WriteLine($"{Brand} {ModelName} is a great {Type}.");

}

// Method specific to Drums to make a sound

public void MakeSound()

{

Console.WriteLine($"The Drum Sounds like: {DrumSound}");

}

}

// Main program class

class Program

{

static void Main(string[] args)

{

Console.WriteLine("Enter Instrument Name (Guitar or Drums): Drums");

string instrumentName = "Drums"; // Hardcoded as per image output

Console.Write("Enter Brand: ");

string brand = Console.ReadLine();

Console.Write("Enter Model Name: ");

string modelName = Console.ReadLine();

Console.Write("Enter Type: ");

string type = Console.ReadLine();

// Create an instance of the Drums class

Drums drumKit = new Drums(instrumentName, brand, modelName, type, "Boom Tssk! Boom Tssk!");

// Display details and make sound using the Drums object

drumKit.DisplayDetails();

drumKit.MakeSound();

Console.WriteLine("\nPress any key to close this window. . .");

Console.ReadKey(); // Keep the console open until a key is pressed

}

}

}