using System;

using System.Collections;

using System.Collections.Generic;

using System.Diagnostics;

using System.Linq;

using System.Text;

using System.Threading;

using System.Threading.Tasks;

namespace ConsoleApp2

{

public class Program

{

static void ShowPerformanceDifference()

{

//ArrayList arrayList = new ArrayList();

//Stopwatch stopwatch = Stopwatch.StartNew();

//for (int i = 0; i < 100000000; i++)

//{

// arrayList.Add(i);

//}

//stopwatch.Stop();

//TimeSpan timeSpan = stopwatch.Elapsed;

//Console.WriteLine(timeSpan.TotalSeconds);

//List<int> list = new List<int>();

//stopwatch = Stopwatch.StartNew();

//for (int i = 0; i < 100000000; i++)

//{

// list.Add(i);

//}

//stopwatch.Stop();

//timeSpan = stopwatch.Elapsed;

//Console.WriteLine(timeSpan.TotalSeconds);

//ArrayList arrayList = new ArrayList();

//Stopwatch stopwatch = Stopwatch.StartNew();

//for (int i = 0; i < 100000000; i++)

//{

// arrayList.Add("Salam");

//}

//stopwatch.Stop();

//TimeSpan timeSpan = stopwatch.Elapsed;

//Console.WriteLine(timeSpan.TotalSeconds);

//List<string> list = new List<string>();

//stopwatch = Stopwatch.StartNew();

//for (int i = 0; i < 100000000; i++)

//{

// list.Add("Salam");

//}

//stopwatch.Stop();

//timeSpan = stopwatch.Elapsed;

//Console.WriteLine(timeSpan.TotalSeconds);

}

static void Main(string[] args)

{

ShowPerformanceDifference();

//Generic Non Generic

//ArrayList arrayList = new ArrayList(100);

//arrayList.Add(10);

//arrayList.Add(20);

//arrayList.Add(30);

//arrayList.Add(30);

//arrayList.Add(new List<int> { 1,2,3});

//Console.WriteLine(arrayList.Capacity);

//foreach (var item in arrayList)

//{

// Console.WriteLine(item);

//}

//string text = "Salam";

//object obj = text;

//Console.WriteLine(obj);

//boxing from value type to reference

//int a = 100;

//object obj = a;

//Console.WriteLine(obj);

//// unboxing

//int data = (int)obj;

//ArrayList arrayList = new ArrayList();

//arrayList.Add(20);

//arrayList.Add(10.5);

//arrayList.Add(1.2345m);

//arrayList.Add(1.4f);

//arrayList.Add("Good morning");

//arrayList.Add(true);

//foreach (var item in arrayList)

//{

// Console.WriteLine(item);

//}

//Console.WriteLine(arrayList.Count);

//Console.WriteLine(arrayList.Capacity);

//arrayList.TrimToSize();

//Console.WriteLine(arrayList.Capacity);

//arrayList.AddRange(new ArrayList{ 1,2,3,4});

//foreach (var item in arrayList)

//{

// Console.Write(item+" ");

//}

//Console.WriteLine();

////arrayList.RemoveAt(4);

////arrayList.Remove("Good morning");

//arrayList.RemoveRange(3, 4);

//foreach (var item in arrayList)

//{

// Console.Write(item + " ");

//}

//Console.WriteLine();

//Stack stack = new Stack();

//stack.Push(10);

//stack.Push(20);

//Console.WriteLine(stack.Pop());

//foreach (var item in stack)

//{

// Console.WriteLine(item);

//}

//Stack<string> mystack=new Stack<string>();

//mystack.Push("Hi");

//mystack.Push("Hola");

//mystack.Push("Namaste");

//mystack.Push("Privet");

//mystack.Push("Konichiva");

//mystack.Push("Salam");

//foreach (var item in mystack)

//{

// Console.WriteLine(item);

//}

//Queue<string> queue=new Queue<string>();

//queue.Enqueue("A-1");

//queue.Enqueue("B-1");

//queue.Enqueue("B-2");

//foreach (var item in queue)

//{

// Console.WriteLine(item);

//}

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

//{

// int no = 65;

// var result = (char)no +"-"+ i.ToString();

// Console.Write(result+" ");

// Thread.Sleep(1500);

// queue.Enqueue(result);

//}

//Console.WriteLine();

//Console.WriteLine();

//while (queue.Count!=0)

//{

// Console.WriteLine("[ "+queue.Dequeue()+" ]");

// Thread.Sleep(1500);

// foreach (var item in queue)

// {

// Console.Write(item+" ");

// }

//}

//Queue<Student> students = new Queue<Student>();

//students.Enqueue(new Student

//{

// Name = "John",

// Age = 23

//});

//students.Enqueue(new Student

//{

// Name = "Elvin",

// Age = 23

//});

//foreach (var item in students)

//{

// Console.WriteLine(item.Name+" "+item.Age);

//}

//Queue<int> no = new Queue<int>();

//no.Enqueue(1);

//no.Enqueue(2);

//no.Enqueue(3);

//no.Enqueue(4);

//if (no.Contains(11))

//{

// Console.WriteLine("We found");

//}

//else

//{

// Console.WriteLine("We did not find like this");

//}

//Hashtable hashtable = new Hashtable();

//hashtable.Add("Pear", 1.5);

//hashtable.Add("Apple",2);

//hashtable.Add("Orange", 4.5);

//// hashtable.Clear();

//hashtable["Lemon"] = 1;

//Console.WriteLine(hashtable["Lemon"].GetHashCode());

//Console.WriteLine(hashtable["Apple"].GetHashCode());

//Console.WriteLine(hashtable["Orange"].GetHashCode());

//Console.WriteLine(hashtable["Apple"]);

////hashtable.Remove("Apple");

//foreach (var key in hashtable.Keys)

//{

// Console.WriteLine(key + " " + hashtable[key]);

//}

//foreach (var value in hashtable.Values)

//{

// Console.WriteLine(value);

//}

}

}

}