Bài 1:

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace Mang

{

internal class Program

{

static void Main(string[] args)

{

int n;

do

{

Console.WriteLine("Nhap vao so phan tu cua mang: ");

}while(!int.TryParse(Console.ReadLine(), out n) || n<=0);

Console.WriteLine("Nhap vao gia tri cac phan tu cua mang");

int[] arr = new int[n];

for(int i= 0; i < arr.Length; i++)

{

arr[i] = int.Parse(Console.ReadLine());

}

Console.WriteLine("So lon nhat trong mang la: "+arr.Max());

Console.WriteLine("So nho nhat trong mang la: " + arr.Min());

Console.WriteLine("Tong cac phan tu trong mang la: " + arr.Sum());

//Console.WriteLine("Mang sau khi sap xep la: ");

//Array.Sort(arr);

Console.ReadLine();

}

}

}

Bài 2:

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace Chuoi

{

internal class Program

{

static void Main(string[] args)

{

Console.WriteLine("a, Nhap vao mot chuoi: ");

string input = Console.ReadLine();

Console.WriteLine("a, Cac ky tu trong chuoi vua nhap: ");

foreach (char kytu in input)

{

Console.WriteLine($"{kytu}");

}

//////////////////////////

Console.WriteLine("b, Nhap vao mot chuoi gom cac ky tu va khoang trang: ");

string inputwithspace = Console.ReadLine();

Console.WriteLine("Cac tu trong chuoi bo qua khoang trang: ");

string[] words = inputwithspace.Split(new[] { ' ' },StringSplitOptions.RemoveEmptyEntries);

Dictionary<char, int> charCount = new Dictionary<char, int>();

foreach (string word in words)//duyet tung string trong string[]

{

Console.WriteLine(word);

foreach (char c in word)

{

if (charCount.ContainsKey(c))

{

charCount[c]++;

}

else

{

charCount[c] = 1;

}

}

}

Console.WriteLine("So lan xuat hien ky tu trong chuoi: ");

foreach(KeyValuePair<char, int> kvp in charCount)

{

Console.WriteLine($"{kvp.Key}: {kvp.Value}");

}

Console.ReadLine();

}

}

}

Bài 3:

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace DanhSach

{

internal class Program

{

static void Main(string[] args)

{

List<string> ThanhPho = new List<string>() ;

ThanhPho.Add("Ha Noi");

ThanhPho.Add("Ho Chi Minh");

ThanhPho.Add("Hai Phong");

ThanhPho.Add("Da Nang");

ThanhPho.Add("Can Tho");

//sap xep thanh pho theo thu tu A-Z

ThanhPho.Sort();

Console.WriteLine($"Danh sach {ThanhPho.Count} thanh pho: ");

foreach (string tp in ThanhPho)

{

Console.WriteLine(tp);

}

ThanhPho.Remove("Ha Noi");

ThanhPho.Add("Thai Binh");

ThanhPho.Add("Quang Ninh");

ThanhPho.Add("Bac Ninh");

ThanhPho.Add("Nam Dinh");

Console.WriteLine($"Danh sach {ThanhPho.Count} thanh pho: ");

foreach (string tp in ThanhPho)

{

Console.WriteLine($"{tp} ");

}

Console.ReadLine();

}

}

}

Bài 4:

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace CauTruc

{

struct HocSinh

{

public string HoTen;

public int Tuoi;

public bool GioiTinh;//true: nam, false: nu

}

class Program

{

static void Main(string[] args)

{

int n;

do

{

Console.Write("Nhap so luong hoc sinh: ");

}while(!int.TryParse(Console.ReadLine(), out n)||n<0);

HocSinh[] dshocsinh = new HocSinh[n];//tao mot mang gom n hoc sinh

for(int i = 0; i < dshocsinh.Length; i++)

{

//nhap input dau vao

Console.WriteLine($"Nhap thong tin cho hoc sinh thu {i+1}: ");

Console.Write("Nhap ho ten hoc sinh: ");

string hoTen = Console.ReadLine();

Console.Write("Nhap tuoi hoc sinh: ");

int tuoi = int.Parse(Console.ReadLine());

Console.Write("Nhap gioi tinh hoc sinh (nam: true, nu: false): ");

bool gioiTinh = bool.Parse(Console.ReadLine());

//luu du lieu vao trong mang danh sach hoc sinh

dshocsinh[i] = new HocSinh

{

HoTen = hoTen,

Tuoi = tuoi,

GioiTinh = gioiTinh

};

}

Console.WriteLine("-------------------------------");

Console.WriteLine("Danh sach hoc sinh ");

for(int i = 0; i < dshocsinh.Length; i++)

{

HocSinh hocSinh = dshocsinh[i];

string gioiTinh = hocSinh.GioiTinh ? "Nam " : "Nu";

Console.WriteLine($"Hoc sinh {i + 1}: {hocSinh.HoTen}, {hocSinh.Tuoi}, {gioiTinh}");

}

int tongtuoi = 0;

foreach(HocSinh hocSinh in dshocsinh)//thay vi khai bao int thi dinh nghia struct

{

tongtuoi += hocSinh.Tuoi;

}

Console.WriteLine($"Tong so tuoi cua {n} hoc sinh= {tongtuoi}");

Console.ReadLine();

}

}

}

Bài 5:

Bài 6:

using System;

using System.Collections.Generic;

using System.Data;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace PhuongThuc

{

internal class Program

{

static void Main(string[] args)

{

int n;

do

{

Console.Write("Nhap so luong phan tu cua mang: ");

} while (!int.TryParse(Console.ReadLine(), out n) || n <= 0);

int[] arr = new int[n];

Random random = new Random();

Console.WriteLine("Nhap cac phan tu cua mang: ");

for (int i = 0; i < arr.Length; i++)

{

arr[i] = random.Next(100);

Console.WriteLine(arr[i] + " ");

}

Console.WriteLine("Mang ban dau la: ");

foreach (int i in arr)

{

Console.WriteLine(i + " ");

}

HashSet<int> set = new HashSet<int>();//tap hop khong trung lap cac phan tu

Console.WriteLine("Mang cac so nguyen to: ");

for(int i = 0; i < arr.Length; i++)

{

if (Ngto(arr[i]) && !set.Contains(arr[i]))

{

Console.Write(arr[i] + " ");

set.Add(arr[i]);

}

}

Console.ReadLine();

}

static bool Ngto(int n)

{

if (n <= 2)

{

return false;

}

for (int i = 2; i <= Math.Sqrt(n); i++)

{

if(n%i == 0)

{

return false;

}

}

return true;

}

}

}