Q1.

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace Ex1

{

internal class LeapYear

{

static void Main(string[] args)

{

Console.Write("Enter any Year to check is Leap year or not: ");

int year=Convert.ToInt32(Console.ReadLine());

if ((year%400==0)||(year%4==0 && year%100!=0))

{

Console.WriteLine("\n"+year+" is a Leap Year");

}

else

{

Console.WriteLine("\n"+year+" is not a Leap Year");

}

Console.ReadKey();

}

}

}

Q2.

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace Ex1

{

internal class PrimeNumbers

{

public static bool check(int num)

{

for(int i = 2; i < num/2; i++)

{

if (num%i == 0) { return false; }

}

if (num!=1)

return true;

else

return false;

}

static void Main(string[] args)

{

Console.Write("Enter Starting number: ");

int start=Convert.ToInt32(Console.ReadLine());

Console.Write("Enter Ending number: ");

int stop = Convert.ToInt32(Console.ReadLine());

Console.WriteLine("Prime Numbers Between the Range are as follows");

for (int i = start; i < stop; i++)

{

if (check(i)){ Console.Write(i+", "); }

}

}

}

}

Q3.

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace Ex1

{

internal class SimpleCalculator

{

static int simple\_cal(int num1, int num2, char ch)

{

int res=0;

switch (ch)

{

case '+':

res=num1 + num2;

break;

case '-':

res=num1 - num2;

break;

case '\*':

res=num1 \* num2;

break;

case '/':

res=num1 / num2;

break;

}

return res;

}

static void Main(string[] args)

{

Console.Write("Enter Num1: ");

int num1=Convert.ToInt32(Console.ReadLine());

Console.Write("Enter Num2: ");

int num2=Convert.ToInt32(Console.ReadLine());

Console.Write(" \n+ => Add \n- => Subtract \n\* => Multiply \n/ => Divide \nEnter Your Choice:");

char ch=(char) Console.Read();

Console.WriteLine("\nResult is: " +simple\_cal(num1,num2,ch));

}

}

}

Q4.

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace Ex1

{

internal class SimpleCalculator2

{

static int simple\_cal2(char ch, params int[] nums)

{

int res = nums[0];

switch (ch)

{

case '+':

for (int i = 1; i < nums.Length; i++)

{

res += nums[i];

}

break;

case '-':

for (int i = 1; i < nums.Length; i++)

{

res -= nums[i];

}

break;

case '\*':

for (int i = 1; i < nums.Length; i++)

{

res \*= nums[i];

}

break;

case '/':

for (int i = 1; i < nums.Length; i++)

{

res /= nums[i];

}

break;

}

return res;

}

static void Main(string[] args)

{

Console.Write("Enter #. Inputs: ");

int n=Convert.ToInt32(Console.ReadLine());

int[] nums=new int[n];

Console.WriteLine("Enter #: ");

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

{

nums[i]=Convert.ToInt32(Console.ReadLine());

}

Console.Write(" \n+ => Add \n- => Subtract \n\* => Multiply \n/ => Divide \nEnter Your Choice:");

char ch = (char)Console.Read();

Console.WriteLine("\nResult is: " + simple\_cal2(ch, nums));

}

}

}

Q5.

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace Ex1

{

internal class Banking

{

static void create(int amt, out int bal)

{

bal = amt;

}

static void withdraw\_amt(int amt, ref int bal)

{

bal-=amt;

}

static void Main(string[] args)

{

int bal;

Console.Write("Enter Amount to create Account: ");

int amt=Convert.ToInt32(Console.ReadLine());

create(amt, out bal);

Console.WriteLine("\nAccount Created Successfully");

Console.Write("\nEnter Amount to withdraw from Account: ");

int withdraw= Convert.ToInt32(Console.ReadLine());

if (withdraw <= bal)

{

withdraw\_amt(withdraw, ref bal);

Console.WriteLine("\nAmount Withdrawn Successfully");

Console.WriteLine("Balance: " + bal);

}

else

{

Console.WriteLine("\nWithdrawl is not possible");

}

}

}

}

Q6.

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace Ex1

{

internal class RegSearch

{

static void Main(string[] args)

{

Console.Write("Enter #. Register #: ");

int n = Convert.ToInt32(Console.ReadLine());

int[] reg\_arr = new int[n];

Console.WriteLine("Enter Register #s: ");

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

{

reg\_arr[i] = Convert.ToInt32(Console.ReadLine());

}

Console.Write("\n1. Display \n2. Search \nEnter your Choice: ");

int ch = Convert.ToInt32(Console.ReadLine());

if (ch == 1)

{

Console.WriteLine("Displaying Register #s");

for(int i = 0; i < n-1; i++)

{

Console.Write(reg\_arr[i] + ", ");

}

Console.Write(reg\_arr[n-1] + ", ");

}

else if (ch == 2)

{

Console.Write("Enter Register # to search: ");

int num=Convert.ToInt32(Console.ReadLine());

bool flag = false;

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

{

if (reg\_arr[i] == num)

{

Console.WriteLine(num+" is there in Register #");

flag = true;

break;

}

}

if (!flag) Console.WriteLine(num + " is not there in Register #");

}

}

}

}