**1050 Programming Logic**

Lab 6 (14 points total)

Name: \_\_Thomas Spencer\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

***Paste your code and screenshots of the console as below.***

* Use a while loop and if statement to write a program that prints the next 20 leap years (2 points).

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace ConsoleApp25

{

class Program

{

static void Main(string[] args)

{

int counter = 0;

int year = 2018;

while (counter < 40)

{

if (year % 4 == 0)

{

Console.WriteLine(year);

year = year + 1;

counter = counter + 1;

}

else if (year % 100 != 0)

{

Console.WriteLine(year);

year = year + 1;

counter = counter + 1;

}

else if (year % 400 == 0)

{

Console.WriteLine(year);

year = year + 1;

counter = counter + 1;

}

else

Console.WriteLine(year);

year = year + 1;

counter = counter + 1;

}

}

}

}

my output



* Write a guessing game where the user has to guess a secret number. After every guess the program tells the user whether their number was too large or too small. At the end the number of tries needed should be printed. To keep it simple, input the number at the beginning of the game. (6 points)

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace ConsoleApp26

{

class Program

{

static void Main(string[] args)

{

int tries = 0;

double numGuess;

int correctNum = 3;

Console.WriteLine("Please Guess a Number between 1 and 10: ");

numGuess = Convert.ToUInt32(Console.ReadLine());

tries++;

while (numGuess != correctNum || numGuess == correctNum)

{

if (numGuess < 1 || numGuess > 10)

{

Console.WriteLine("Your number is invalid. \nPlease Guess another Number between 1 and 10: ");

numGuess = Convert.ToUInt32(Console.ReadLine());

tries++;

}

else if (numGuess < correctNum)

{

Console.WriteLine("Your number is too Low. \nPlease Guess another Number between 1 and 10: ");

numGuess = Convert.ToUInt32(Console.ReadLine());

tries++;

}

else if (numGuess > correctNum)

{

Console.WriteLine("Your number is too High. \nPlease Guess another Number between 1 and 10: ");

numGuess = Convert.ToUInt32(Console.ReadLine());

tries++;

}

else if (numGuess == correctNum)

{

Console.WriteLine("Correct.\nThe number of tries needed was {0}.", tries);

break;

}

}

}

}

}

my output



* Create a while loop. The while loop will continue to run until the user inputs a value of “E”. During the loop, accept two other inputs: grocery item and cost. Keep a running total of the cost. Also, add the item to a string. When the loop is complete, display the items and the total cost. (6 points)

Example:



Example Code for keeping track of grocery items:

Console.Write("Please enter the next item: "); // this would go before the while loop

item = Console.ReadLine(); // this would go in the while loop

allItems += item + "\n";

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace ConsoleApp33

{

class Program

{

static void Main(string[] args)

{

string [] item;

decimal[] price;

decimal totalPrice = 0;

int end = 0;

Console.WriteLine("Please enter an Item.");

item = new[] { Console.ReadLine() };

Console.WriteLine("Please enter item cost: ");

price = new[] { Convert.ToDecimal(Console.ReadLine()) };

Console.WriteLine("Press 0 to CONTINUE, or Press 1 to END.");

end = Convert.ToInt32(Console.ReadLine());

while (end != 1)

{

Console.WriteLine("Please enter next Item.");

item = new[] { Console.ReadLine() };

Console.WriteLine("Please enter item cost: ");

price = new[] { Convert.ToDecimal(Console.ReadLine()) };

Console.WriteLine("Press 0 to CONTINUE, or Press 1 to END.");

end = Convert.ToInt32(Console.ReadLine());

}

Console.WriteLine("\nGrocery Items: \n{0}", item);

Console.WriteLine("Total Cost: {0}", price);

}

}

}

my output

