**Part A: Phone Dialing Program**

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// Programming Assignment: LAB4A

// Developer: Anthony Meunier

// Date Written: 8/3/2014

// Purpose: Phone Dialing Program

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using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace CIS170B\_Lab4A

{

class Program

{

static void Main(string[] args)

{

//declare variables

char d1 = 'a', d2 = 'a', d3 = 'a', d4 = 'a', d5 = 'a', d6 = 'a', d7 = 'a', d8 = 'a';

int checkValue = 0;

//call ProcessInput

do

{

checkValue = ProcessInput(ref d1, ref d2, ref d3, ref d4, ref d5, ref d6, ref d7, ref d8);

switch (checkValue)

{

case -1:

Console.WriteLine("Invalid input, please try again.");

break;

default:

Console.WriteLine("Valid phone number: " + d1 + d2 + d3 + d4 + d5 + d6 + d7 + d8);

break;

}

} while (true);

}

//get input

public static void GetInput(ref char d1, ref char d2, ref char d3, ref char d4, ref char d5, ref char d6, ref char d7, ref char d8)

{

Console.Write("Please enter a phone number: ");

d1 = Convert.ToChar(Console.Read());

d2 = Convert.ToChar(Console.Read());

d3 = Convert.ToChar(Console.Read());

d4 = Convert.ToChar(Console.Read());

d5 = Convert.ToChar(Console.Read());

d6 = Convert.ToChar(Console.Read());

d7 = Convert.ToChar(Console.Read());

d8 = Convert.ToChar(Console.Read());

Console.ReadLine();

}

//process input

public static int ProcessInput(ref char d1, ref char d2, ref char d3, ref char d4, ref char d5, ref char d6, ref char d7, ref char d8)

{

if (d1 == '0')

{

return -1;

}

if (d1 == '5' && d2 == '5' && d3 == '5')

{

return -1;

}

if (ToDigit(ref d1) == -1)

{

return -1;

}

if (ToDigit(ref d2) == -1)

{

return -1;

}

if (ToDigit(ref d3) == -1)

{

return -1;

}

if (ToDigit(ref d5) == -1)

{

return -1;

}

if (ToDigit(ref d6) == -1)

{

return -1;

}

if (ToDigit(ref d7) == -1)

{

return -1;

}

if (ToDigit(ref d8) == -1)

{

return -1;

}

return 0;

}

public static int ToDigit(ref char d)

{

d = Char.ToUpper(d);

switch (d)

{

case '0':

d = '0';

break;

case '1':

d = '1';

break;

case 'A': case 'B': case 'C': case '2':

d = '2';

break;

case 'D': case 'E': case 'F': case '3':

d = '3';

break;

case 'G': case 'H': case 'I': case '4':

d = '4';

break;

case 'J': case 'K': case 'L': case '5':

d = '5';

break;

case 'M': case 'N': case 'O': case '6':

d = '6';

break;

case 'P': case 'Q': case 'R': case 'S': case '7':

d = '7';

break;

case 'T': case 'U': case 'V': case '8':

d = '8';

break;

case 'W': case 'X': case 'Y': case 'Z': case '9':

d = '9';

break;

default:

return -1;

}

}

}

}