<https://www.hackerrank.com/contests/world-codesprint-7/challenges/two-characters>

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

namespace ConsoleApplication1

{

class Program

{

static void Main(string[] args)

{

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

string s = Console.ReadLine();

//int len = Convert.ToInt32(Console.ReadLine());

//string s = Console.ReadLine();

//string s = "abcabcabcab";

//string s = "abaaabcccab";

// string s = "beabeefeab";//babab -> 5

//string s = "ggzczxoxwqeihjsswxwxkuxqwcyeuxrppajcyrzahehomrlqzfesagmietjqtwsrioocnjqgggpzzkmxxqlujnqormwffsmhoatqbezymyhxwjtayyilozozzwbhhkewgimejokyvsyobcfprzjdgnhwitwsdssjohhvkvgwpxcnanqufqbskubxxiajpclpraimeozhvpwagabvhjndinvuhfzqlcvbfnkosqdsdzznsibukhlltcgaezcvlsrkbexelggocseryhqyntrolpskbgojetdaidcbcbiwzsemactmumjemlqkbqyqxbgjaqynnworreqbyqyawpqyuorkoqdlvovyqkvyqxffhbfcjabcqribrikvraivghmdssjqywbtkuzhoeltouoztkdjgupiwyowglrtttgcjxnnmvkihxckbayxwcjiyyrymomqclchpiorftyuuuccymzbzobltxojsdzdrtvqwcvclsfbkvxsdcncgzpjwjwvgyxzptjjscmujoslgx";

//string s = "aaaaaaaabbbbbbbbbbccccccccccccccdddddddddddddddddeeee";

//string s = "nvqredbicypfcjjlolkpeyhgydrfmxaqzhrviwwwgxogqtflzvtsouerbeiotzhyobsecdrscvzfmndvitkotptnphcodrcwpqwtleemoavgtswzhcfkwurfiottvqperjjuoonawtvavtaftytjritdvhmwnzdjklqsuxfpdkrkaseaaqejeukckpwmnqsbcpfosobpmrpuphavimqcdbsituzsfuvnnljdditlgcjfbputtztyhqekqqmuedrkzvtjtoypfeojzieasapvphsnyhuybgwlfwjvmemullymsdqcbsxmxlusatbefpddktxrmyabhbbhaghghxugzhjtllvugbemwabbqxodinikujcxgatrozdowykbvkugqtmzzgdrsfeoimizypzjecadsfkgcwroonzcfwksobusoopcflwmledyrwfrcmwklqtohbuncujlzbuumfigweoitttnafdwrwewggyloztuoaobcmixhokmucjrlvkjculzffenchjutphqiuqkfxxnnelsoueipwjxxhezndpfaejxtrvdilupzcwwdutnizzkmzdrsqiezwzlredarocnasvxfcjtzeiwhvxocstizmxvqlijgmvvwinegscvccsgkdxjtletpqlqpjtvumvzgqadtrciirabreewrfzvbhcqiswnfhjfbathkqtyxwgtuubrxgqxwraoeckljlfwjodjkzucmkabktaxzhdws";

//string s = "muqqzbcjmyknwlmlcfqjujabwtekovkwsfjrwmswqfurtpahkdyqdttizqbkrsmfpxchbjrbvcunogcvragjxivasdykamtkinxpgasmwz";

/\* 0 \*/

//string s = "nvqredbicypfcjjlolkpeyhgydrfmxaqzhrviwwwgxogqtflzvtsouerbeiotzhyobsecdrscvzfmndvitkotptnphcodrcwpqwtleemoavgtswzhcfkwurfiottvqperjjuoonawtvavtaftytjritdvhmwnzdjklqsuxfpdkrkaseaaqejeukckpwmnqsbcpfosobpmrpuphavimqcdbsituzsfuvnnljdditlgcjfbputtztyhqekqqmuedrkzvtjtoypfeojzieasapvphsnyhuybgwlfwjvmemullymsdqcbsxmxlusatbefpddktxrmyabhbbhaghghxugzhjtllvugbemwabbqxodinikujcxgatrozdowykbvkugqtmzzgdrsfeoimizypzjecadsfkgcwroonzcfwksobusoopcflwmledyrwfrcmwklqtohbuncujlzbuumfigweoitttnafdwrwewggyloztuoaobcmixhokmucjrlvkjculzffenchjutphqiuqkfxxnnelsoueipwjxxhezndpfaejxtrvdilupzcwwdutnizzkmzdrsqiezwzlredarocnasvxfcjtzeiwhvxocstizmxvqlijgmvvwinegscvccsgkdxjtletpqlqpjtvumvzgqadtrciirabreewrfzvbhcqiswnfhjfbathkqtyxwgtuubrxgqxwraoeckljlfwjodjkzucmkabktaxzhdws";

//string s = "czoczkotespkfjnkbgpfnmtgqhorrzdppcebyybhlcsplqcqogqaszjgorlsrppinhgpaweydclepyftywafupqsjrbkqakpygolyyfksvqetrfzrcmatlicxtcxulwgvlnslazpfpoqrgssfcrfvwbtxaagjfahcgxbjlltfpprpcjyivxu";

/\* 6 \*/ //string s = "czoczkotespkfjnkbgpfnmtgqhorrzdppcebyybhlcsplqcqogqaszjgorlsrppinhgpaweydclepyftywafupqsjrbkqakpygolyyfksvqetrfzrcmatlicxtcxulwgvlnslazpfpoqrgssfcrfvwbtxaagjfahcgxbjlltfpprpcjyivxu";

if (s.Length == 1)

{

Console.WriteLine(0);

}

else

{

string dist = new String(s.Distinct().ToArray());

Console.WriteLine(dist);

HashSet<string> pares = new HashSet<string>();

int max\_len = 0;

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

{

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

{

char x = dist[i];

char y = dist[j];

string p1 = x.ToString() + y.ToString();

string p2 = y.ToString() + x.ToString();

if ( !pares.Contains(p1) && !pares.Contains(p2))

{

pares.Add(p1);

pares.Add(p2);

string concat = "";

for (int k = 0; k < s.Length; k++)

{

if (s[k] == x || s[k] == y)

{

concat += s[k];

if (concat.Length > 1 && concat[concat.Length - 1] == concat[concat.Length - 2])

{

concat = "";

break;

}

}

}

//if (concat.Length == 6)

//{

// Console.WriteLine(x + " " + y + " "+ concat);

//}

// Console.WriteLine(concat);

max\_len = Math.Max(max\_len, concat.Length);

}

}

}

Console.WriteLine(max\_len);

}

Console.ReadLine();

}

//static void Main(string[] args)

//{

// string s = "muqqzbcjmyknwlmlcfqjujabwtekovkwsfjrwmswqfurtpahkdyqdttizqbkrsmfpxchbjrbvcunogcvragjxivasdykamtkinxpgasmwz";

// string concat = "";

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

// {

// if (s[i] == 'm' || s[i] == 'p')

// {

// concat += s[i];

// }

// }

// Console.WriteLine(concat);

// Console.ReadLine();

//}

}

}