CS 352 (MIPS) – Multiple-base Palindromes

The decimal number, **717** = **1011001101_2** (binary), is palindromic in BOTH bases. Note that the palindromic number, in either base, do not include leading zeros.

Write a MIPS program to print all pairs of these palindromic numbers up to a maximum number (n) to be determined by a user prompt (see output dialog box below). Include a boolean function named **isPalidrome(x, k)** that returns true if a number **x** (either in base 10 or 2) is a palindrome in base **k**. You may also include other functions that you think would be helpful.

Output dialog

```
Enter value of n (in base 10): 10000

Pairs of palindromic numbers from 1 through XX:

1               1
3               11
5               101
7               111
9               1001
33              100001
99              1100011
313             100111001
585             1001001001
717             1011001101
 :               :
 :               :
```

Submission

The following instructions must be adhered to:

1. Name your file <lastname_1st initial>.asm → e.g., tanj.asm
2. Drop said file to the W drive for cs352.
3. Email your file to the TA: mullise6725@uwec.edu and also a copy to me.