Siena College's **31st Annual** High School Programming Contest
Sponsored by Transfinder
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Gold Problem #3: Longest Pals

Background Information: A palindrome is a word or phrase that reads the same (ignoring case, punctuation, and whitespace) forward or backward.
Examples include **racecar**, and **Go hang a salami! I'm a lasagna hog!.**

Your program will read in a string (no spaces) of letters and print out the longest substring of the input that is a palindrome. In case of ties for longest substring, print the palindrome that would come first in lexicographic order. Based on ASCII values, uppercase letters are less than lowercase letters.
For example, A < a and Zz < a.

Programming Problem:

Input: A single, non-empty string of less than 80 upper and lower case letters.
Output: The longest palindromic substring of the original input.

Example 1:   Input:
```
Fornerdssdrenfor
```
Output:
```
nerdssdren
```

Example 2:   Input:
```
aBCDEF
```
Output:
```
B
```

Example 3:   Input:
```
AAAAAa
```
Output:
```
AAAAAa
```

Example 4:   Input:
```
qABAaBAqq
```
Output:
```
qABAaBAq
```

Example 5:   Input:
```
aaabbbcccdBBB
```
Output:
```
BBB
```

Example 6:   Input:
```
TeddyRooseveltAManAPlanACanalPanamaabcd
```
Output:
```
AManAPlanACanalPanama
```