The purpose of this assessment is to give you practice for the upcoming midterm. The following questions are supposed to be challenging - do much as you can!

Setup:
- No computers, phones, or notes (for the real midterm you can use a cheat sheet)
- The first 20-30 min of lab
- Do not erase, simply cross out (put comments only if you have time)
- Write prose / pseudo-code if you cannot think of the exact function
- Only write on this sheet (front and back) so it can be returned to you easily

Question A:
Write a main function to accomplish the following task (see example below):
1. Ask the user for their name and a number
2. Generate an ascending and descending list showing their name repeated

Enter your name: Abigail
Enter a number: 5
Abigail
Abigail
Abigail
Abigail
Abigail
Abigail
Abigail
Abigail
Abigail
Abigail
Abigail
Abigail
-----------------------------------------------------------------------------------------------------------------------------

```python
def main():
    # start your code here
```

**Question B:**

- User enters a string
- If the user input is a **palindrome**, then output a “palindrome square”
  ➔ A palindrome is defined as a word, phrase, or sequences that read the same backwards as forward (ex: *madam, Kayak*)
- If the input is **not** a palindrome, output what its palindrome would look like

```python
def reverse(word):
    new_word = ""
    for i in range(len(word)-2,-1,-1):
        new_word = new_word + word[i]
    return new_word

def palindrome(word):
    # TODO (should return either True or False)

def main():
    str = input()
    if palindrome(str):
        print(">>\"+str,"is a palindrome")
        for i in range(len(str)):
            if i == 0 or i == len(str)-1:
                print(str)
            else:
                stars = "\" * len(str)-2
                print(str[i] + stars + str[i])
    else:
        print(">>\"+str,"is not a palindrome")
        print(str+reverse(str))
main()
```

1) Complete the palindrome function in the code above.
2) Predict the output (i.e. what is this “palindrome square”? for the following examples:

<table>
<thead>
<tr>
<th>Example #1:</th>
<th>Example #2:</th>
<th>Example #3:</th>
</tr>
</thead>
<tbody>
<tr>
<td>User entered <strong>TACOCAT</strong></td>
<td>User entered <strong>KAYAK</strong></td>
<td>User entered <strong>HELLO</strong></td>
</tr>
</tbody>
</table>