

Given a string, find the shortest possible string which can be achieved by adding characters to the end of initial string to make it a [palindrome](#).

### Example

For `st = "abcdc"`, the output should be

```
buildPalindrome(st) = "abcdcba".
```

### Input/Output

- **[execution time limit] 4 seconds (py)**
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- **[input] string st**
- A string consisting of lowercase latin letters.
- *Guaranteed constraints:*
- $3 \leq \text{st.length} \leq 10$ .
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- **[output] string**