

## Longest Palindromic Substring

Time: 1s | Memory: 256 MB

### Problem Statement

A **palindrome** is a string that reads the same forward and backward.

Given a string **s**, your task is to find the **longest palindromic substring** within the string.

Note that there will be a maximum of only 1 longest substring in all the test cases.

### Input Format

A single line containing a string **s**

### Output Format

Print the **longest palindromic substring** of **s**

### Constraints / Notes

$1 \leq |s| \leq 1000$

String **s** consists of:

- lowercase English letters (**a-z**)
- uppercase English letters (**A-Z**)
- digits (**0-9**)

### Sample Input I

```
babbad
```

### Sample Output I

```
abba
```

### Sample Input II

```
cbbd
```

### Sample Output II

```
bb
```

### Sample Input III

```
babadbaaab
```

### Sample Output III

```
baaab
```