

# Longest Palindromic Substring

**Question:** Given a string S, find the longest palindromic substring in S. You may assume that the maximum length of S is 1000, and there exists one unique longest palindromic substring.

## Solutions:

class Solution:

```
# @param {string} s
```

```
# @return {string}
```

```
def longestPalindrome(self, s):
```

```
    l = len(s)
```

```
    if l <= 2:
```

```
        if (s[0] != s[l-1]): return ""
```

```
        else: return s
```

```
    result = ""
```

```
    for i in range(0,l):
```

```
        palindrome = self.SearchPalindrome(s, i, i)
```

```
        if len(palindrome) > len(result): result = palindrome
```

```
        palindrome = self.SearchPalindrome(s, i, i+1)
```

```
        if len(palindrome) > len(result): result = palindrome
```

```
    return result
```

```
def SearchPalindrome(self, string, start, end):
```

```
    while(start >= 0 and end < len(string) and string[start] == string[end]):
```

```
        start -= 1
```

```
        end += 1
```

```
    return string[start+1:end]
```

```
Solution().longestPalindrome("bananas")
```