

Longest Palindromic Substring

Write a program to find the longest palindromic substring in a given string without using any built-in substring or reverse functions. For example, for input "babad", the output should be "bab" or "aba".

Instructions: Avoid using any string handling libraries. Implement a solution that checks all substrings manually.

Solution:

```
function palindrome(s: string): string {  
    const length = s.length;  
    let longest = "";  
  
    function isPal(start: number, end: number): boolean {  
        while (start < end) {  
            if (s[start] !== s[end]) {  
                return false;  
            }  
        }  
        return true;  
    }  
  
    for (let i = 0; i < length; i++) {  
        for (let j = i + 1; j < length; j++) {  
            if (isPal(i, j) && (j - i + 1 > longest.length)) {  
                longest = s.substring(i, j + 1);  
            }  
        }  
    }  
    return longest;  
}
```

```
    }  
    start++;  
    end--;  
}  
return true;  
}  
for(let i=0;i<length;i++) {  
    for(let j=i;j<length;j++) {  
        if(isPal(i, j)) {  
            const currentLength = j - i + 1;  
            if (currentLength > longest.length) {  
                longest = "";  
                for (let k=i;k<=j;k++) {  
                    longest += s[k];  
                }  
            }  
        }  
    }  
}  
}
```

```
}
```

```
    return longest;
```

```
}
```

```
console.log("OUTPUT:");
```

```
console.log(palindrome("babad"));
```

```
console.log(palindrome("madaming"));
```

```
console.log(palindrome("leveling"));
```

OUTPUT:

OUTPUT:

bab

madam

level