

# Problem 6: Zigzag Conversion

## Problem Information

**Difficulty:** Medium

**Acceptance Rate:** 52.85%

**Paid Only:** No

**Tags:** String

## Problem Description

The string `"PAYPALISHIRING"` is written in a zigzag pattern on a given number of rows like this: (you may want to display this pattern in a fixed font for better legibility)

PAHNAPLSIIGYIR

And then read line by line: `"PAHNAPLSIIGYIR"`

Write the code that will take a string and make this conversion given a number of rows:

```
string convert(string s, int numRows);
```

**Example 1:**

**Input:** s = "PAYPALISHIRING", numRows = 3 **Output:** "PAHNAPLSIIGYIR"

**Example 2:**

**Input:** s = "PAYPALISHIRING", numRows = 4 **Output:** "PINALSIGYAHRPI"

**Explanation:** PINALSIGYAHRPI

**Example 3:**

**Input:** s = "A", numRows = 1 **Output:** "A"

**Constraints:**

```
* `1 <= s.length <= 1000` * `s` consists of English letters (lower-case and upper-case), `','` and `';'`. * `1 <= numRows <= 1000`
```

## Code Snippets

### C++:

```
class Solution {  
public:  
    string convert(string s, int numRows) {  
  
    }  
};
```

### Java:

```
class Solution {  
public String convert(String s, int numRows) {  
  
}  
}
```

### Python3:

```
class Solution:  
    def convert(self, s: str, numRows: int) -> str:
```