# 6. Zigzag Conversion

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)

P A H N

A P L S I I G

Y I R

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);

## SOLUTION IN C++

class Solution {

public:

string convert(string s, int numRows) {

string ans;

vector<vector<char>> rows(numRows);

int k = 0;

int direction = (numRows == 1) - 1;

for (const char c : s) {

rows[k].push\_back(c);

if (k == 0 || k == numRows - 1)

direction \*= -1;

k += direction;

}

for (const vector<char>& row : rows)

for (const char c : row)

ans += c;

return ans;

}

};