practice.c\22_HEMANT_2.c

```c
/*
Roll no : 22
Batch:A
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Description: Pascal's triangle using array
*/
#include <stdio.h>

int main() {
    int n;

    // Prompt user for the number of rows
    printf("Enter the number of rows for Pascal's Triangle: ");
    scanf("%d", &n);

    // Declare a 2D array to hold the values of Pascal's Triangle
    int triangle[n][n];

    // Initialize the triangle
    for (int i = 0; i < n; i++) {
        for (int j = 0; j <= i; j++) {
            // The first and last values in each row are 1
            if (j == 0 || j == i) {
                triangle[i][j] = 1;
            } else {
                // Other values are the sum of the two values above it
                triangle[i][j] = triangle[i - 1][j - 1] + triangle[i - 1][j];
            }
        }
    }

    // Print Pascal's Triangle
    printf("Pascal's Triangle:\n");
    for (int i = 0; i < n; i++) {
        // Print leading spaces for alignment
        for (int j = 0; j < n - i - 1; j++) {
            printf(" ");
        }
        // Print the values in the current row
        for (int j = 0; j <= i; j++) {
            printf("%d ", triangle[i][j]);
        }
        printf("\n");
    }

    return 0;
}

```