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Section: B

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Subject: Data Structures Lab

Practical – 3

Aim: Program to print pascal's triangle.

```
    1
   1 1
  1 2 1
 1 3 3 1
1 4 6 4 1
1 5 10 10 5 1
```

Program:

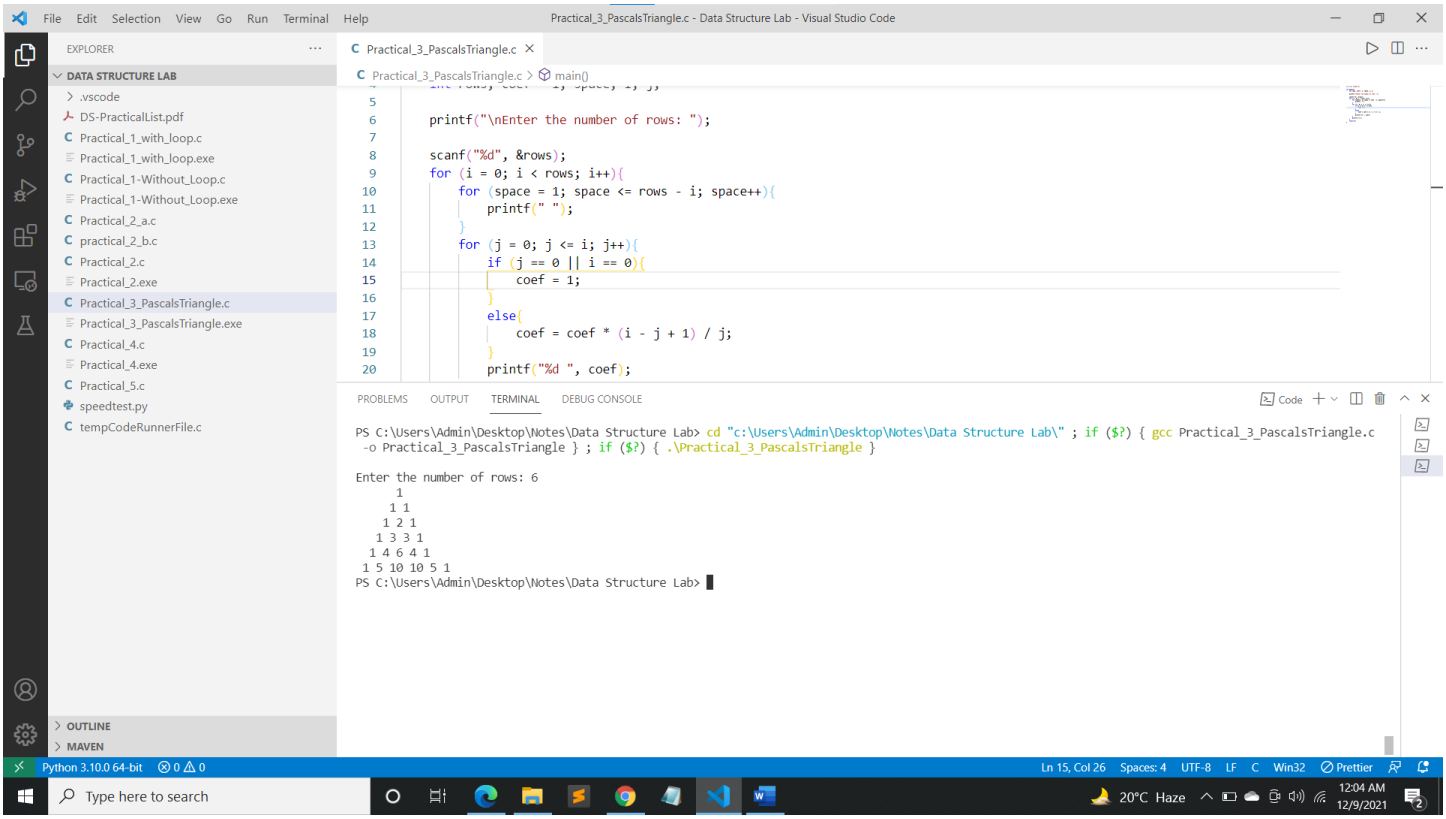
```c
#include <stdio.h>
int main(){
    int rows, coef = 1, space, i, j;

    printf("\nEnter the number of rows: ");

    scanf("%d", &rows);
    for (i = 0; i < rows; i++){
        for (space = 1; space <= rows - i; space++){
            printf(" ");
        }
        for (j = 0; j <= i; j++){
            if (j == 0 || i == 0){
                coef = 1;
            }
            else{
                coef = coef * (i - j + 1) / j;
            }
            printf("%d ", coef);
        }
        printf("\n");
    }
    return 0;
}
```

Output:

Enter the number of rows: 6

```
     1
    1 1
   1 2 1
  1 3 3 1
 1 4 6 4 1
1 5 10 10 5 1
```

Screenshot:



Conclusion: I have successfully completed practical 3.