HATFD1035

Print Pascal's Triangle

Write a program to generate and print the first n rows of Pascal’s triangle without using built-in math or array functions. For n = 5, the output should be:

1

1 1

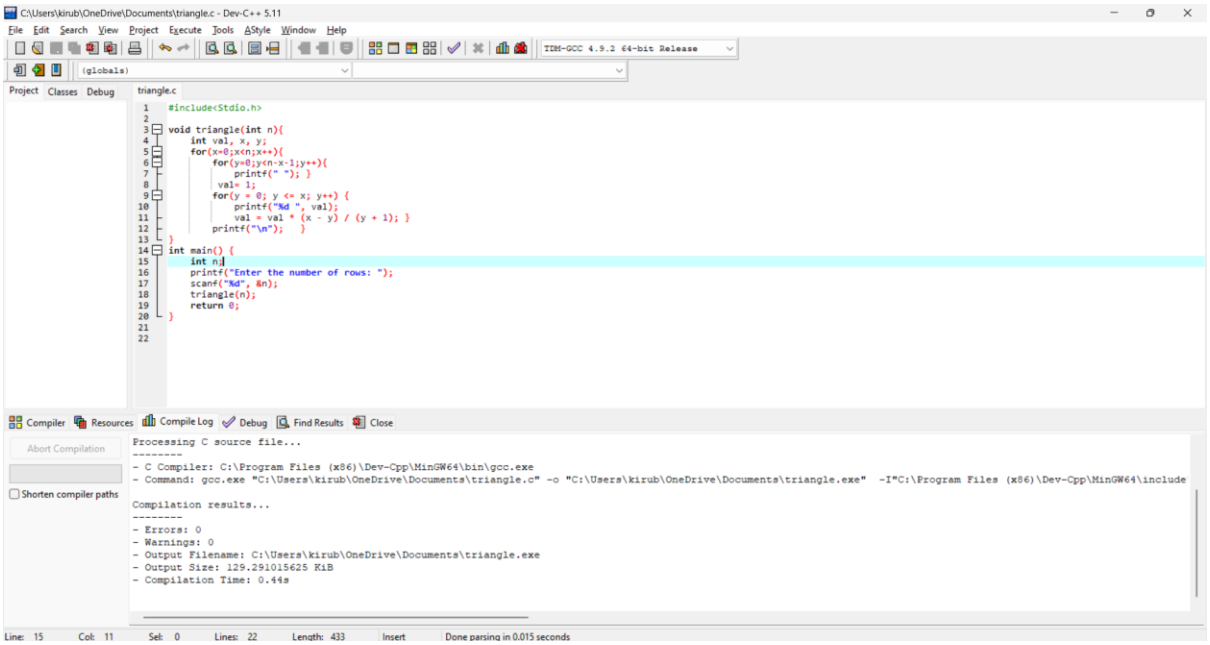
1 2 1

1 3 3 1

1 4 6 4 1

Program Code

```
   #include<Stdio.h>
void triangle(int n){
   int val, x, y;
   for(x=0;x<n;x++){
      for(y=0;y<n-x-1;y++){
         printf(" "); }
                  val= 1;
      for(y = 0; y <= x; y++) {
         printf("%d ", val);
         val = val * (x - y) / (y + 1); }
      printf("\n");   }
}
int main() {
   int n;
   printf("Enter the number of rows: ");
   scanf("%d", &n);
   triangle(n);
   return 0;
}
```

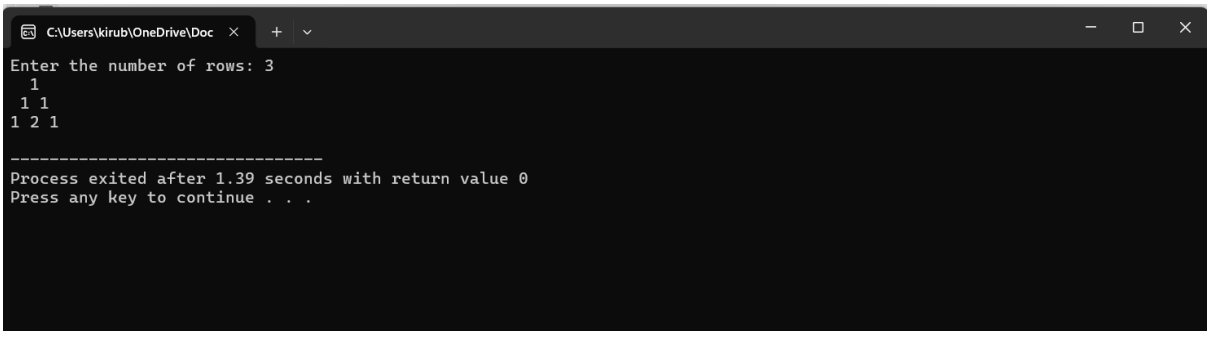


Output 1:

N=5

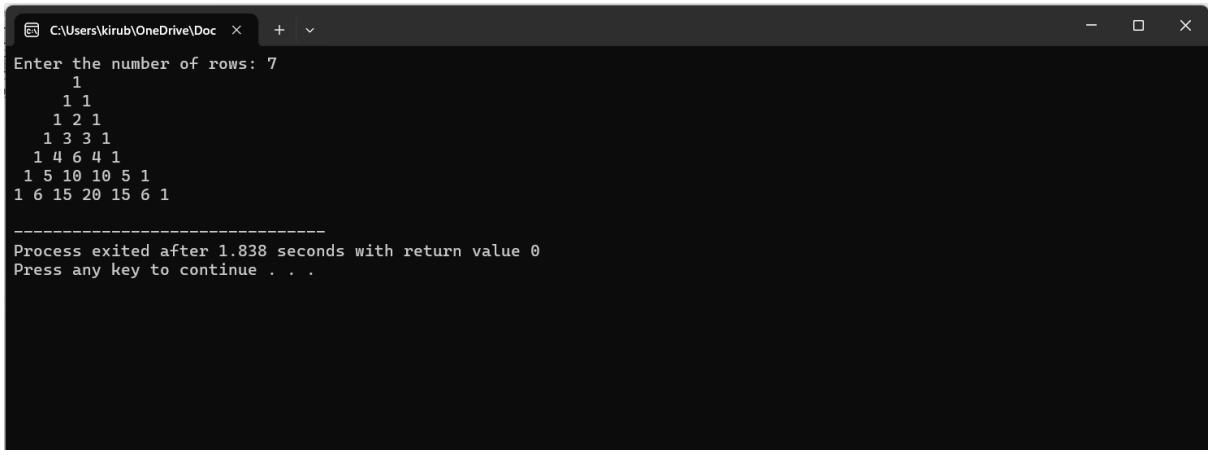
Output 2:

N=3



Output 3:

N=7


C:\Users\kirub\OneDrive\Doc
Enter the number of rows: 7
1
1 1
1 2 1
1 3 3 1
1 4 6 4 1
1 5 10 10 5 1
1 6 15 20 15 6 1

Process exited after 1.838 seconds with return value 0
Press any key to continue . . .