```c
#include <stdio.h>

int fact_rec(int n) {
    if (n == 0) return 1;
    return n * fact_rec(n - 1);
}

int fact_non_rec(int n) {
    int f = 1, i;
    for (i = 1; i <= n; i++) {
        f = f * i;
    }
    return f;
}

int binomial(int n, int r) {
    return fact_non_rec(n) / (fact_non_rec(r) * fact_non_rec(n - r));
}

int main() {
    int i, j;

    printf("Recursive: 5! = %d\n", fact_rec(5));
    printf("Non-Recursive: 5! = %d\n\n", fact_non_rec(5));

    printf("n\tr\tC(n,r)\n");
    for (i = 5; i <= 7; i++) {
        for (j = 0; j <= i; j++) {
            printf("%d\t%d\t%d\n", i, j, binomial(i, j));
        }
    }

    return 0;
}
```

```
PS D:\chetan_projects>  & 'c:\Users\DELL\.vscode\extensions\ms-vscode
-In-sgr4l2cy.asx' '--stdout=Microsoft-MIEngine-Out-lmiibe52.ws5' '--s
=C:\msys64\ucrt64\bin\gdb.exe' '--interpreter=mi'
Recursive: 5! = 120
Non-Recursive: 5! = 120

n        r        C(n,r)
5        0        1
5        1        5
5        2        10
5        3        10
5        4        5
5        5        1
6        0        1
6        1        6
6        2        15
6        3        20
6        4        15
6        5        6
6        6        1
7        0        1
7        1        7
7        2        21
7        3        35
7        4        35
7        5        21
7        6        7
7        7        1
PS D:\chetan_projects>
```