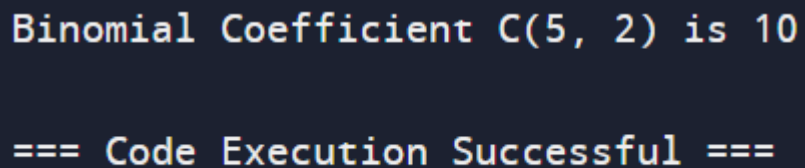


105. Computing Binomial Coefficient

PROGRAM:-

```
def binomial_coefficient(n, k):  
    # Initialize a 2D array to store results of subproblems  
    C = [[0 for _ in range(k + 1)] for _ in range(n + 1)]  
  
    # Calculate value of Binomial Coefficient in bottom-up manner  
    for i in range(n + 1):  
        for j in range(min(i, k) + 1):  
            # Base Cases  
            if j == 0 or j == i:  
                C[i][j] = 1  
            else:  
                # Calculate value using previously stored values  
                C[i][j] = C[i - 1][j - 1] + C[i - 1][j]  
  
    return C[n][k]  
  
# Example usage:  
n = 5  
k = 2  
print(f"Binomial Coefficient C({n}, {k}) is {binomial_coefficient(n, k)}")
```

OUTPUT:-



```
Binomial Coefficient C(5, 2) is 10  
  
=== Code Execution Successful ===
```

TIME COMPLEXITY:- $O(n*k)$