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SEM IN LAB

```c
#include <stdio.h>
 Function to calculate factorial
int factorial(int n) {
  if (n == 0)
     return 1; // Base case: 0! = 1
else
    return n * factorial(n - 1); // Recursive case

int main() {
 int number;

 // Input from the user
  printf("Enter a positive integer: ");
  scanf("%d", &number);

// Ensure the number is non-negative
 if (number < 0) {
    printf("Factorial is not defined for negative numbers.\n");
 } else {
```

```c
    printf("Factorial of %d = %d\n", number, factorial(number));

}


 return 0;
```