5.Factorial using Recursion and Itreative method

#include <stdio.h>

int factorial\_iterative(int n) {

if (n < 0) {

printf("Error: Factorial is not defined for negative numbers.\n");

return -1; // Indicate error

}

int result = 1;

for (int i = 1; i <= n; i++) {

result \*= i;

}

return result;

}

int factorial\_recursive(int n) {

if (n < 0) {

printf("Error: Factorial is not defined for negative numbers.\n");

return -1; // Indicate error

}

if (n == 0) {

return 1;

} else {

return n \* factorial\_recursive(n - 1);

}

}

int main() {

int n;

printf("Enter a non-negative integer: ");

scanf("%d", &n);

printf("Factorial using iterative approach: %d\n", factorial\_iterative(n));

printf("Factorial using recursive approach: %d\n", factorial\_recursive(n));

return 0;

}