EXERCISE -3

Write a C program to find Factorial of a given number without using Recursion

AIM:

To write a C program to find the factorial of a given number without using recursion.

ALGORITHM:

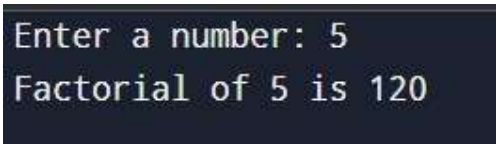
1. Start the program.
2. Declare an integer variable n for the number and a variable fact initialized to 1.
3. Read the number n from the user.
4. If n is negative, print that factorial doesn't exist.
5. Use a loop from 1 to n:
    - Multiply fact by the loop counter each time.
6. After the loop ends, print the value of fact.
7. End the program.

PROGRAM:

```
#include <stdio.h>

int main() {

   int n, i;

   unsigned long long fact = 1;

   printf("Enter a positive integer: ");

   scanf("%d", &n);

   if (n < 0) {

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

   } else {
```

```
        for (i = 1; i <= n; ++i) {
            fact *= i;
        }
        printf("Factorial of %d = %llu\n", n, fact);
    }
    return 0;
}
```

INPUT&OUTPUT:



RESULT:

The program successfully calculates the factorial of a number without using recursion.