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Practical No: 3

1) Implement a program in SWI Prolog to find factorial of a number.

CODE:

factorial(0, 1). % Base case: factorial of 0 is 1

factorial(N, Result) :-

N > 0, % Ensure N is greater than 0

X is N - 1, % Decrement N

factorial(X, Y), % Recursive call to calculate factorial of N-1

Result is N \* Y. % Result is N multiplied by factorial of N-1

% Specify what should be executed at startup

:- initialization(main).

main :-

factorial(5, Result), % Calculate the factorial of 5

write('Factorial is: '),

write(Result).

**OUTPUT:**

