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Practical No: 5

1) Write a program in SWI-Prolog environment to print Fibonacci series.

CODE:

% Base case: Fibonacci of 0 is 0, and Fibonacci of 1 is 1

fibonacci(0, 0).

fibonacci(1, 1).

% Recursive case: Fibonacci(N) = Fibonacci(N-1) + Fibonacci(N-2)

fibonacci(N, Result) :-

N > 1,

N1 is N - 1,

N2 is N - 2,

fibonacci(N1, Res1),

fibonacci(N2, Res2),

Result is Res1 + Res2.

% Specify what should be executed at startup

:- initialization(main).

% Main predicate to run Fibonacci calculation

main :-

write('Fibonacci of 10 is: '), nl,

fibonacci(10, Result), % Calculate Fibonacci of 10

write(Result), nl,

halt.

**OUTPUT:**

