



## KONKAN GYANPEETH COLLEGE OF ENGINEERING,

(Affiliated to University of Mumbai, Approved by A.I.C.T.E., New Delhi.)  
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### Department of Information Technology

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**Experiment No:** 08

**Aim:** Learn to Solve programming problems using Logic Programming through writing Prolog

**Lab Objective:** Design and implement declarative programs in functional and logic programming languages.

**Lab Outcomes:** Design and Develop solution based on declarative programming paradigm using functional and logic programming (LO2)

**Requirements:** Any text editor to be able to edit Prolog file and swi-prolog compiler or swish online prolog code IDE.

**Performance:** Students need to write prolog code for following programming tasks.

1. Find the factorial of a number.
2. Find the N<sup>th</sup> fibonacci number.
3. Find the last element in the List.
4. Find the k<sup>th</sup> element in the List
5. Program to find sum of N natural numbers.

[Note: Students need to find solution prolog code for these problems, show execution of code, note the output and explain working of the solutions in their own words]

**Conclusion:** Learn to Solve programming problems using Logic Programming through writing Prolog code.

**Reference:**

1. swi-prolog getting started online tutorial, <https://www.swi-prolog.org/pldoc/man?section=quickstart>, 01 Jan 2023.
2. Wikipedia Article: Prolog, <https://en.wikipedia.org/wiki/Prolog>, 01 Jan 2023.