**DESIGN AND ANALYSIS OF ALGORITHMS**

**MINI PROJECT**

**TITLE: TOWER OF HANOI**

**Abstract:**The Tower of Hanoi also called the Tower of Brahma or Lucas is a mathematical game or puzzle. It consists of three rods, and a number of disks of different sizes which can slide onto any rod. The puzzle starts with the disks in a neat stack in ascending order of size on one rod, the smallest at top, thus making a conical shape.

The puzzle can be with any number of disks, although many toy versions have around seven to nine of them. The minimum number of moves required to solve a Tower of Hanoi puzzle is 2n-1, where n is the number of disks.

**Applications:**

1. The Tower of Hanoi is frequently used in psychological research on problem solving.
2. It is also used as a Backup rotation scheme when performing computer data Backups where multiple tapes/media are involved.
3. Tower of Hanoi is popular for teaching recursive algorithms to beginning programming students.
4. The Tower of Hanoi is also used as a test by neuropsychologists trying to evaluate frontal lobe deficits.

This program uses recursion to show the movement of disk from one tower to another.

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