AIM:-Towers of Hanoi

Algorithm:-

Step 1: move n-1 disks from from peg to aux peg.

Step 2: move nth disk from from peg to to peg.

Step 3: move n-1 disks from aux peg to to peg.

Method:

Step 1: create a function.

Towers of Hanoi where pass the n (current number of disk), from peg to aux peg.

Step 2: make a function call for (n-1) th disk.

Step 3: then print the current the disk along with from peg and to peg.

Step 4: again make a function call for (n-1) the disk.

Program:-

#include <stdio.h>

void towers(int, char, char, char);

int main()

{

int num;

printf("Enter the number of disks : ");

scanf("%d", &num);

printf("The sequence of moves involved in the Tower of Hanoi are :\n");

towers(num, 'A', 'C', 'B');

return 0;

}

void towers(int num, char frompeg, char topeg, char auxpeg)

{

// Base Condition if no of disks are

if (num == 1)

{

printf("\n Move disk 1 from peg %c to peg %c", frompeg, topeg);

return;

}

// Recursively calling function twice

towers(num - 1, frompeg, auxpeg, topeg);

printf("\n Move disk %d from peg %c to peg %c", num, frompeg, topeg);

towers(num - 1, auxpeg, topeg, frompeg);

}

