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ARTIFICIAL INTELLIGENCE  
PRACTICAL 7  
ROLL No. 2109805

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CLASS: TYBSc CS  
ROLL No: 2109805  
SUBJECT: ARTIFICIAL INTELLIGENCE



## Practical 7: Tower Of Hanoi

Q1) Demonstrate Tower of Hanoi Problem.

Ans:

p7\_tower\_of\_hanoi.py

```
"""
```

```
p7_tower_of_hanoi.py
```

```
Author: Jagrut Gala
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Date: 04-09-2021
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Practical: 7
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```
Objective: Demonstrate Tower of Hanoi Problem.
```

```
"""
```

```
def TowerOfHanoi(n, from_rod, to_rod, aux_rod): # f:A t:C x:B
    if n == 1:
        print ("Move disk 1 from rod",from_rod,"to rod",to_rod)
        return
    TowerOfHanoi(n-1, from_rod, aux_rod, to_rod)
    print ("Move disk",n,"from rod",from_rod,"to rod",to_rod)
    TowerOfHanoi(n-1, aux_rod, to_rod, from_rod)
```

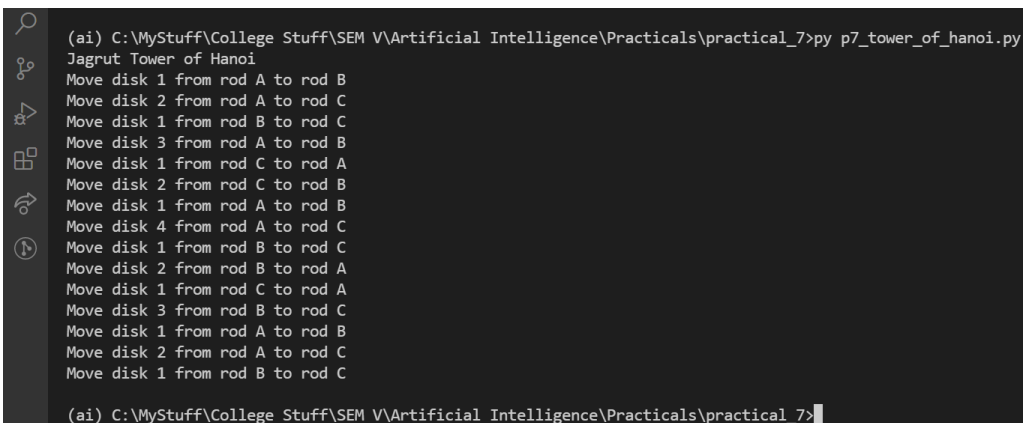
```
# Driver code
```

```
n = 4 # n is number of disks
```

```
# A B C are rods
```

```
print(f"Jagrut Tower of Hanoi")
```

```
TowerOfHanoi(n, 'A', 'C', 'B')
```



```
(ai) C:\MyStuff\College Stuff\SEM V\Artificial Intelligence\Practicals\practical_7>py p7_tower_of_hanoi.py
Jagrut Tower of Hanoi
Move disk 1 from rod A to rod B
Move disk 2 from rod A to rod C
Move disk 1 from rod B to rod C
Move disk 3 from rod A to rod B
Move disk 1 from rod C to rod A
Move disk 2 from rod C to rod B
Move disk 1 from rod A to rod B
Move disk 4 from rod A to rod C
Move disk 1 from rod B to rod C
Move disk 2 from rod B to rod A
Move disk 1 from rod C to rod A
Move disk 3 from rod B to rod C
Move disk 1 from rod A to rod B
Move disk 2 from rod A to rod C
Move disk 1 from rod B to rod C

(ai) C:\MyStuff\College Stuff\SEM V\Artificial Intelligence\Practicals\practical_7>
```