```
 1 C:\Users\sanks\PycharmProjects\FM_Aligorithm\venv\
   Scripts\python.exe C:\Users\sanks\PycharmProjects\
   FM_Aligorithm\FM_Aligorithm_Actual.py
 2 Enter the number of Tasks: 3
 3 Enter the number of Processors: 2
 4
 5
 6 Enter Energy Cost E[Task][Processor]:
 7 E[0][0]: 8
 8 E[0][1]: 2
 9 E[1][0]: 4
10 E[1][1]: 3
11 E[2][0]: 6
12 E[2][1]: 7
13 Enter Execution Time T[Task][Processor]:
14 T[0][0]: 10
15 T[0][1]: 15
16 T[1][0]: 24
17 T[1][1]: 30
18 T[2][0]: 44
19 T[2][1]: 30
20 Communication costs C[Task-i][Task-j]:
21 C[0][0]: 0
22 C[0][1]: 8
23 C[0][2]: 12
24 C[1][0]: 8
25 C[1][1]: 0
26 C[1][2]: 6
27 C[2][0]: 12
28 C[2][1]: 6
29 C[2][2]: 0
30 Energy costs:
31 [8, 2]
32 [4, 3]
33 [6, 7]
34 Execution Times:
35 [10, 15]
36 [24, 30]
37 [44, 30]
38 Communication costs:
39 [0, 8, 12]
```

```
40 [8, 0, 6]
41 [12, 6, 0]
42
43 ROWS ARE PROCESSORS (P0,P1,P2...)
44 COLUMNS ARE TASKS (T0,T1,T2...
45
46 INITIAL SOLUTION : [0, 0, 0]
47
48 gain array:
49  [[  0   0   0]
50  [-14 -13 -19]]
51 Temporarily moving Task 1 to Partition 1 to check
   Constraint
52 Aggregate Execution Times are: [54. 30.]
53 Their Differences are: [24. 24.]
54 z = 1
55 max_gain=-13
56 Constraint bounded
57 Task 1 is moved  to Partition 1
58 moved_task: [1, -1, -1]
59 A_Array: [0 1 0]
60 Energy COST after moving task 1 is: 31.0
61
62 gain array:
63  [[ 0  0  0]
64  [ 2  0 -7]]
65 Temporarily moving Task 0 to Partition 1 to check
   Constraint
66 Aggregate Execution Times are: [44. 45.]
67 Their Differences are: [1. 1.]
68 z = 1
69 max_gain=2
70 Constraint bounded
71 Task 0 is moved  to Partition 1
72 moved_task: [1, 0, -1]
73 A_Array: [1 1 0]
74 Energy COST after moving task 0 is: 29.0
75
76 gain array:
77  [[ 0  0  0]
78  [ 0  0 17]]
```

```
79 Temporarily moving Task 2 to Partition 1 to check
   Constraint
80 Aggregate Execution Times are: [ 0. 75.]
81 Their Differences are: [75. 75.]
82 z = 1
83 max_gain=17
84 Constraint bounded
85 Task 2 is moved  to Partition 1
86 moved_task: [1, 0, 2]
87 A_Array: [1 1 1]
88 Energy COST after moving task 2 is: 12.0
89
90 FINAL RESULTS:
91
92 TASK MOVEMENT: [1, 0, 2]
93 ENERGY COST AFTER EACH MOVEMENT: [31.0, 29.0, 12.0]
94 OPTIMAL COST at k=3 and Respective Total_Cost=12.0
95 FINAL SOLUTION: [1 1 1]
96
97 Process finished with exit code 0
98
```