With Varied No of Users:

Testcase1:
100
2
30
4000
2
2
25
1
3500
32
2
4500
27
3800
3
1
35
2
4800

Result:

```
************************************ Result ******
CU1                              15              4000
DU1 of CU1                       25              3500
DU2 of CU1                       16              4500
CU2                               9              3800
DU1 of CU2                       18              4800


Total RB distributed: 83 out of 100
Total profit: 20600
```

Testcase2:

100
3
25
7000
3
3
27
2
7200
30
1
7500
27
1
8000
40
10000
5
2
18
2
4000
28
3
7450
33
9000
2
2
21
2
8400
29
3
8900

Result:

```
**************************** Result *********************
CU1                          9              7000
DU1 of CU1                   14             7200
CU2                          8              10000
DU1 of CU2                   9              4000
DU2 of CU2                   10             7450
CU3                          17             9000
DU1 of CU3                   11             8400
DU2 of CU3                   15             8900


Total RB distributed: 93 out of 100
Total profit: 61950
```

Testcase3:
100
4
30
9500
2
4
23
2
7650
27
3
7700
33
6
8000
32
2
5700
36
9999
4
1
26
2
6500
25
9988
1
3
24
4
7800
29
3
5900
31
1
6300
37
9898
4
3
22

2
9200
26
5
8100
32
3
3900

Result:

```
*****************************  Result  *************
CU1                         15                  9500
DU1 of CU1                  12                  7650
DU2 of CU1                  14                  7700
DU3 of CU1                  17                  8000
CU2                         9                   9999
CU4                         10                  9898
DU1 of CU4                  11                  9200
DU2 of CU4                  7                   8100


Total RB distributed: 95 out of 100
Total profit: 70047
```

Testcase4:

100
4
21
2300
2
4
23
4
7000
27
22
9000
34
4
9000
50
7
11000
35
6400
3
4
31
3
9000
33
2
8000
51
8
10000
12
2
9900
37
9898
3
4
43
5
7800
32
3
10500

44
8
12000
39
3
8000
45
9800
5
4
45
4
8900
45
4
9000
43
3
8585
32
6
9900

Result:

```
***************************** Result **************
DU1 of CU2              11              9000
DU3 of CU2              17              10000
DU4 of CU2              6               9900
DU2 of CU3              11              10500
DU3 of CU3              15              12000
CU4                     9               9800
DU1 of CU4              12              8900
DU2 of CU4              12              9000
DU4 of CU4              7               9900

Total RB distributed: 100 out of 100
Total profit: 89000
```

Testcase5:
100
5
23
4000
2
4
25
3
4500
30
2
6000
31
1
6200
27
2
5700
37
5800
2
4
25
2
7000
28
4
5000
45
2
5500
42
3
3500
47
9898
3
4
42
2
8000
32

3
12000
44
8
10500
38
2
7500
46
9700
3
3
34
2
8700
32
3
8800
35
4
9797
47
9796
2
5
37
4
8800
33
2
8888
36
5
6878
23
1
8000
43
3
9900

Result:

```
*************************** Result *********
CU1                        12              4000
DU1 of CU1                 13              4500
DU4 of CU1                 14              5700
DU1 of CU2                 13              7000
DU2 of CU2                 14              5000
DU2 of CU3                 11              12000
DU2 of CU4                 11              8800
DU3 of CU4                 12              9797


Total RB distributed: 100 out of 100
Total profit: 56797
```

With Varied Resource Blocks:

Testcase1:
100
5
23
4000
2
4
25
3
4500
30
2
6000
31
1
6200
27
2
5700
37
5800
2
4
25
2
7000
28
4
5000
45
2
5500
42
3
3500
47
9898
3
4
42
2
8000

32
3
12000
44
8
10500
38
2
7500
46
9700
3
3
34
2
8700
32
3
8800
35
4
9797
47
9796
2
5
37
4
8800
33
2
8888
36
5
6878
23
1
8000
43
3
9900

Result:

```
****************************** Result ***********
CU1                          12            4000
DU1 of CU1                   13            4500
DU4 of CU1                   14            5700
DU1 of CU2                   13            7000
DU2 of CU2                   14            5000
DU2 of CU3                   11            12000
DU2 of CU4                   11            8800
DU3 of CU4                   12            9797


Total RB distributed: 100 out of 100
Total profit: 56797
```

Testcase2:
200
5
23
4000
2
4
25
3
4500
30
2
6000
31
1
6200
27
2
5700
37
5800
2
4

25
2
7000
28
4
5000
45
2
5500
42
3
3500
47
9898
3
4
42
2
8000
32
3
12000
44
8
10500
38
2
7500
46
9700
3
3
34
2
8700
32
3
8800
35
4
9797
47
9796
2

5
37
4
8800
33
2
8888
36
5
6878
23
1
8000
43
3
9900

Result:

```
****************************** Result ***************
CU1                       12              4000
DU1 of CU1                13              4500
DU4 of CU1                14              5700
DU1 of CU2                13              7000
DU2 of CU2                14              5000
CU3                       16              9898
DU2 of CU3                11              12000
DU3 of CU3                15              10500
CU4                       16              9700
DU1 of CU4                17              8700
DU2 of CU4                11              8800
DU3 of CU4                12              9797
DU1 of CU5                19              8800
DU2 of CU5                17              8888


Total RB distributed: 200 out of 200
Total profit: 113283
```

Testcase3:
300
5
23
4000
2
4
25
3
4500
30
2
6000
31

1
6200
27
2
5700
37
5800
2
4
25
2
7000
28
4
5000
45
2
5500
42
3
3500
47
9898
3
4
42
2
8000
32
3
12000
44
8
10500
38
2
7500
46
9700
3
3
34
2
8700

32
3
8800
35
4
9797
47
9796
2
5
37
4
8800
33
2
8888
36
5
6878
23
1
8000
43
3
9900

Result:

```
*************************** Result ***************
CU1                          12                    4000
DU1 of CU1                   13                    4500
DU2 of CU1                   15                    6000
DU4 of CU1                   14                    5700
DU1 of CU2                   13                    7000
DU2 of CU2                   14                    5000
CU3                          16                    9898
DU1 of CU3                   21                    8000
DU2 of CU3                   11                    12000
DU3 of CU3                   15                    10500
CU4                          16                    9700
DU1 of CU4                   17                    8700
DU2 of CU4                   11                    8800
DU3 of CU4                   12                    9797
CU5                          24                    9796
DU1 of CU5                   19                    8800
DU2 of CU5                   17                    8888
DU3 of CU5                   18                    6878
DU5 of CU5                   22                    9900


Total RB distributed: 300 out of 300
Total profit: 153857
```

Testcase4:
400
5
23
4000
2
4
25
3
4500
30
2
6000
31
1
6200
27
2
5700
37
5800
2
4
25
2
7000
28
4
5000
45
2
5500
42
3
3500
47
9898
3
4

42
2
8000
32
3
12000
44
8
10500
38
2
7500
46
9700
3
3
34
2
8700
32
3
8800
35
4
9797
47
9796
2
5
37
4
8800
33
2
8888
36
5
6878
23
1
8000
43
3
9900

Result:

```
******************************** Result **************
CU1                          12                4000
DU1 of CU1                   13                4500
DU2 of CU1                   15                6000
DU3 of CU1                   31                6200
DU4 of CU1                   14                5700
CU2                          19                5800
DU1 of CU2                   13                7000
DU2 of CU2                   14                5000
CU3                          16                9898
DU1 of CU3                   21                8000
DU2 of CU3                   11                12000
DU3 of CU3                   15                10500
DU4 of CU3                   19                7500
CU4                          16                9700
DU1 of CU4                   17                8700
DU2 of CU4                   11                8800
DU3 of CU4                   12                9797
CU5                          24                9796
DU1 of CU5                   19                8800
DU2 of CU5                   17                8888
DU3 of CU5                   18                6878
DU4 of CU5                   23                8000
DU5 of CU5                   22                9900

Total RB distributed: 392 out of 400
Total profit: 181357
```

Testcase5:

500
5
23
4000
2
4
25
3
4500
30
2
6000
31
1
6200
27
2
5700
37
5800
2
4
25
2
7000
28
4
5000
45
2
5500
42
3
3500
47
9898
3
4
42
2
8000
32
3
12000

44
8
10500
38
2
7500
46
9700
3
3
34
2
8700
32
3
8800
35
4
9797
47
9796
2
5
37
4
8800
33
2
8888
36
5
6878
23
1
8000
43
3
9900

Result:

```
*****************************  Result  ***************
CU1                         12                  4000
DU1 of CU1                  13                  4500
DU2 of CU1                  15                  6000
DU3 of CU1                  31                  6200
DU4 of CU1                  14                  5700
CU2                         19                  5800
DU1 of CU2                  13                  7000
DU2 of CU2                  14                  5000
DU3 of CU2                  23                  5500
DU4 of CU2                  21                  3500
CU3                         16                  9898
DU1 of CU3                  21                  8000
DU2 of CU3                  11                  12000
DU3 of CU3                  15                  10500
DU4 of CU3                  19                  7500
CU4                         16                  9700
DU1 of CU4                  17                  8700
DU2 of CU4                  11                  8800
DU3 of CU4                  12                  9797
CU5                         24                  9796
DU1 of CU5                  19                  8800
DU2 of CU5                  17                  8888
DU3 of CU5                  18                  6878
DU4 of CU5                  23                  8000
DU5 of CU5                  22                  9900


Total RB distributed: 436 out of 500
Total profit: 190357
```
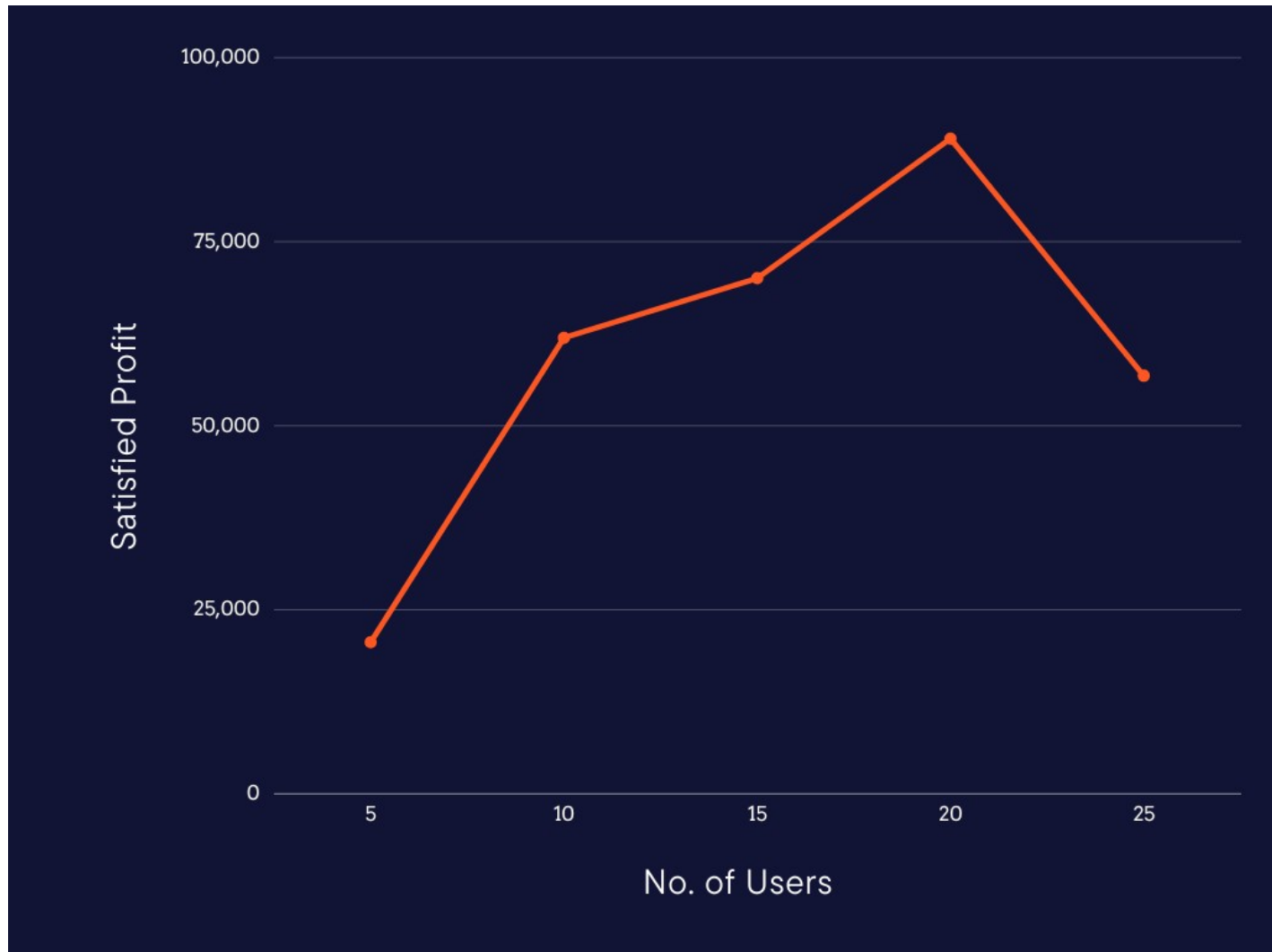
Graph:

With Varied Users:

With Varied Resource Blocks: