

Task 2:

```
Open  [v] [f] *task2.cpp
~/Desktop/PDC Task

1 #include <iostream>
2 #include <omp.h>
3
4 using namespace std;
5
6 int main(int argc, char* argv[])
7 {
8     bool consensus = true; //Initially all threads will have reached consensus\
9
10    while(true)
11    {
12        consensus = true;
13        #pragma omp parallel num_threads(4) //5 threads are being used
14        {
15            int choice;
16            #pragma omp critical
17            {
18                cout<<"Enter choice (0 = yes / 1 = no) for thread "<<omp_get_thread_num()<<" = ";
19                cin>>choice;
20                if (choice == 1)
21                {
22                    consensus = false;
23                }
24            }
25        }
26
27        if (consensus)
28        {
29            cout<<"Consensus has been reached :)"<<endl<<endl;
30            break;
31        }
32        else
33        {
34            cout<<"Consensus couldn't be reached :(\nDon't worry. Trying again :D"<<endl<<endl;
35        }
36    }
37 }
```

Code of Task 1.2

```
hxn@hxn:~/Desktop/PDC Task$ g++ -fopenmp task2.cpp -o task2
hxn@hxn:~/Desktop/PDC Task$ ./task2
Enter choice (0 = yes / 1 = no) for thread 1 = 0
Enter choice (0 = yes / 1 = no) for thread 2 = 1
Enter choice (0 = yes / 1 = no) for thread 0 = 1
Enter choice (0 = yes / 1 = no) for thread 3 = 1
Consensus couldn't be reached :(
Don't worry. Trying again :D

Enter choice (0 = yes / 1 = no) for thread 0 = 1
Enter choice (0 = yes / 1 = no) for thread 2 = 1
Enter choice (0 = yes / 1 = no) for thread 3 = 1
Enter choice (0 = yes / 1 = no) for thread 1 = 0
Consensus couldn't be reached :(
Don't worry. Trying again :D

Enter choice (0 = yes / 1 = no) for thread 3 = 1
Enter choice (0 = yes / 1 = no) for thread 2 = 1
Enter choice (0 = yes / 1 = no) for thread 1 = 1
Enter choice (0 = yes / 1 = no) for thread 0 = 1
Consensus couldn't be reached :(
Don't worry. Trying again :D

Enter choice (0 = yes / 1 = no) for thread 3 = 0
Enter choice (0 = yes / 1 = no) for thread 2 = 0
Enter choice (0 = yes / 1 = no) for thread 1 = 0
Enter choice (0 = yes / 1 = no) for thread 0 = 1
Consensus couldn't be reached :(
Don't worry. Trying again :D

Enter choice (0 = yes / 1 = no) for thread 3 = 0
Enter choice (0 = yes / 1 = no) for thread 1 = 0
Enter choice (0 = yes / 1 = no) for thread 2 = 0
Enter choice (0 = yes / 1 = no) for thread 0 = 0
Consensus has been reached :)

hxn@hxn:~/Desktop/PDC Task$ |
```

Output of Task 1.2