Exp 1 – Load balancing

```
PS C:\Users\Priyanshu\Desktop\DC Exps> cd '.\Exp 1 - LoadBalancer\'
PS C:\Users\Priyanshu\Desktop\DC Exps\Exp 1 - LoadBalancer> javac LoadBalancer.java
PS C:\Users\Priyanshu\Desktop\DC Exps\Exp 1 - LoadBalancer> java LoadBalancer
Enter the number of processes and servers:
4
10
Servers 1 has 1 processes
Servers 2 has 1 processes
Servers 3 has 1 processes
Servers 4 has 1 processes
Servers 5 has 0 processes
Servers 6 has 0 processes
Servers 7 has 0 processes
Servers 8 has 0 processes
Servers 9 has 0 processes
Servers 10 has 0 processes
1. Add Servers
2. Remove Servers
3. Add Processes
 4. Remove Processes
5. Exit
```

Exp 2 – RPC

1st terminal

```
PS C:\Users\Priyanshu\Desktop\DC Exps> cd '.\Exp 2 - RPC\'
PS C:\Users\Priyanshu\Desktop\DC Exps\Exp 2 - RPC> javac ser.java
PS C:\Users\Priyanshu\Desktop\DC Exps\Exp 2 - RPC> javac cli.java
PS C:\Users\Priyanshu\Desktop\DC Exps\Exp 2 - RPC> java ser
Server ready
```

2nd terminal

```
PS C:\Users\Priyanshu\Desktop\DC Exps> cd '.\Exp 2 - RPC\'
PS C:\Users\Priyanshu\Desktop\DC Exps\Exp 2 - RPC> java cli
Client ready, type and press Enter key

Enter operation to perform(add, sub, mul,div)....
add
Enter first parameter :
5
Enter second parameter :
10
Addition = 15
```

Exp 3 – IPC

Terminal 1

```
PS C:\Users\Priyanshu\Desktop\DC Exps> cd '.\Exp 3 - IPC\'
PS C:\Users\Priyanshu\Desktop\DC Exps\Exp 3 - IPC> javac IPCClient.java
PS C:\Users\Priyanshu\Desktop\DC Exps\Exp 3 - IPC> javac IPCServer.java
PS C:\Users\Priyanshu\Desktop\DC Exps\Exp 3 - IPC> java IPCServer

  **** INTERPROCESS COMMUNICATION ****


  *** SERVER PROCESS STARTED ***


  * SERVER IS READY AND WAITING TO RECEIVE DATA FROM CLIENT PROCESS ON PORT *1200

  * Client is connected with IP Address/127.0.0.1and Port Number 64158

  SERVER RECEIVED

  Number 1 ====>5

  Number 2 ====>10

  SERVER PROCESS HAS EXECUTED REQUESTED PROCESS AND SENT RESULT15 TO THE CLIENT


  SERVER PROCESS EXITING.......
 PS C:\Users\Priyanshu\Desktop\DC Exps\Exp 3 - IPC> []
```

Terminal 2

```
PS C:\Users\Priyanshu\Desktop\DC Exps> cd '.\Exp 3 - IPC\'
PS C:\Users\Priyanshu\Desktop\DC Exps\Exp 3 - IPC> java IPCClient

        ************** CLIENT PROCESS STARTED ******************

 ********* PLEASE ENTER THE VALUES OF Number 1 AND Number 2 TO PASS THEM TO SERVE
R PROCESS ********

5
Number 1 ====>5
10
Number 2 ====>10

.......... CLIENT PROCESS HAS RECEIVED RESULT FROM SERVER ..........


  THE ADDITION OF 5 AND 10 IS 15
```

Exp 4 – Group communication

Terminal 1

```
PS C:\Users\Priyanshu\Desktop\DC Exps> cd '.\Exp 4 - Group Communication\'
PS C:\Users\Priyanshu\Desktop\DC Exps\Exp 4 - Group Communication> javac server.j
ava
PS C:\Users\Priyanshu\Desktop\DC Exps\Exp 4 - Group Communication> javac master.j
ava
PS C:\Users\Priyanshu\Desktop\DC Exps\Exp 4 - Group Communication> javac slave1.j
ava
PS C:\Users\Priyanshu\Desktop\DC Exps\Exp 4 - Group Communication> javac slave2.j
ava
PS C:\Users\Priyanshu\Desktop\DC Exps\Exp 4 - Group Communication> java server
The server is running at port 9001.
masterjoined
slave1joined
slave2joined

```

Terminal 2

```
PS C:\Users\Priyanshu\Desktop\DC Exps> cd '.\Exp 4 - Group Communication\'
PS C:\Users\Priyanshu\Desktop\DC Exps\Exp 4 - Group Communication> java master
Enter Your name:
master
Enter a message:
hello
Enter a message:
hello everyone
Enter a message:

```

Terminal 3

```
PS C:\Users\Priyanshu\Desktop\DC Exps> cd '.\Exp 4 - Group Communication\'
PS C:\Users\Priyanshu\Desktop\DC Exps\Exp 4 - Group Communication> java slave1
Enter your name: slave1
master: hello everyone

```

Terminal 4

```
PS C:\Users\Priyanshu\Desktop\DC Exps> cd '.\Exp 4 - Group Communication\'
PS C:\Users\Priyanshu\Desktop\DC Exps\Exp 4 - Group Communication> java slave2
Enter your name: slave2
master: hello everyone

```

Exp 5 – Bully algorithm

```
PS C:\Users\Priyanshu\Desktop\DC Exps> cd '.\Exp 5 - Bully Algorithm\'
PS C:\Users\Priyanshu\Desktop\DC Exps\Exp 5 - Bully Algorithm> javac BullyAlgo.java
PS C:\Users\Priyanshu\Desktop\DC Exps\Exp 5 - Bully Algorithm> java BullyAlgo
Enter The Number of Processes:
5

        1. Crash A Process
        2. Recover A Process
        3. Display New Coordinator
        4. Exit
1

Enter A Process To Crash
5

The Coordinator Has Crashed!

Enter The Initiator
2
Process 2 Called For Election
Process 3 Called For Election
Process 4 Called For Election
Process 5 Called For Election

Process 2 Is In
Process 3 Is In
```

```
Process 4 Is In
Process 5 Is Dead

*** New Coordinator Is 4 ***


        1. Crash A Process
        2. Recover A Process
        3. Display New Coordinator
        4. Exit
2


Crashed Processes Are:

5
Enter The Process You Want To Recover
5


Process 5 Has Recovered

Process 5 Is The New Coordinator


        1. Crash A Process
        2. Recover A Process
        3. Display New Coordinator
        4. Exit
3
```

```
Current Coordinator Is 5

        1. Crash A Process
        2. Recover A Process
        3. Display New Coordinator
        4. Exit
4
PS C:\Users\Priyanshu\Desktop\DC Exps\Exp 5 - Bully Algorithm>
```

Exp 6 – Mutual Exclusion

```
PS C:\Users\Priyanshu\Desktop\DC Exps> cd '.\Exp 6 - Mutual Exclusion\'
PS C:\Users\Priyanshu\Desktop\DC Exps\Exp 6 - Mutual Exclusion> javac MutualServer.java
PS C:\Users\Priyanshu\Desktop\DC Exps\Exp 6 - Mutual Exclusion> javac ClientOne.java
PS C:\Users\Priyanshu\Desktop\DC Exps\Exp 6 - Mutual Exclusion> javac ClientTwo.java
PS C:\Users\Priyanshu\Desktop\DC Exps\Exp 6 - Mutual Exclusion> java MutualServer
Server Started
hello
hello from two
```

```
PS C:\Users\Priyanshu\Desktop\DC Exps> cd '.\Exp 6 - Mutual Exclusion\'
PS C:\Users\Priyanshu\Desktop\DC Exps\Exp 6 - Mutual Exclusion> java ClientOne
Do you want to send some data
Enter Yes or no
Yes
Enter the data
hello
Waiting for Token
Do you want to send some data
Enter Yes or no
```

```
PS C:\Users\Priyanshu\Desktop\DC Exps> cd '.\Exp 6 - Mutual Exclusion\'
PS C:\Users\Priyanshu\Desktop\DC Exps\Exp 6 - Mutual Exclusion> java ClientTwo
Waiting for token
Do you want to send some data
Enter Yes or no
yes
Enter the data
hello from two
Waiting for token
```

Exp 7 – Chandy Mlisra Haas

```
PS C:\Users\Priyanshu\Desktop\DC Exps> cd '.\Exp 7 - CMH\'
PS C:\Users\Priyanshu\Desktop\DC Exps\Exp 7 - CMH> javac Main.java
PS C:\Users\Priyanshu\Desktop\DC Exps\Exp 7 - CMH> java Main
 Enter the number of processes
 5
 Enter the wait for graph:
 1 0 0 0 0
 0 1 0 1 0
 1 0 1 1 1
 0 1 0 1 0
 0 0 0 0 1
 the wait for graph is:
 1 0 0 0 0
 0 1 0 1 0
 1 0 1 1 1
 0 1 0 1 0
 0 0 0 0 1
 Enter the process initiating probe
 2
 Initiating probe...
 [(2,0,0), (2,1,1), (2,1,3), (2,2,0), (2,2,2), (2,2,3), (2,2,4), (2,3,1), (2,3,3), (2,4,4)]
 The Deadlock has been detected...
PS C:\Users\Priyanshu\Desktop\DC Exps\Exp 7 - CMH>
```

Exp 8 – Name Resolution

```
PS C:\Users\Priyanshu\Desktop\DC Exps> cd '.\Exp 8 - Name resolution\'
PS C:\Users\Priyanshu\Desktop\DC Exps\Exp 8 - Name resolution> javac NameResolution.java
PS C:\Users\Priyanshu\Desktop\DC Exps\Exp 8 - Name resolution> java NameResolution

  Enter the website url (like google.com) to Resolve its Name to Address:
 www.google.com

 IP Address: 172.217.166.36
PS C:\Users\Priyanshu\Desktop\DC Exps\Exp 8 - Name resolution>
```