

Problem 2 – Data Modification in Distributed System

SAMPLE INPUT/OUTPUT FOR RECORD LEVEL MULTITHREADING

Enter Teacher's Name: TA2

Enter Student Roll number: 174101055

Update Mark : 1. Increase

2. Decrease

1

Mark to add: 5

Enter Teacher's Name: TA1

Enter Student Roll number: 174101055

Update Mark: 1. Increase

2. Decrease

2

Mark to deduct: 3

Choose one:

1. Without Synchronization

2. With Synchronization

1

Check the output files **HERE AMIT MARK MAY NOT 77, Ex.72 MAY BE A CASE**

Do you want to continue? yes/no

yes

Choose one:

1. Without Synchronization

2. With Synchronization

2

Check the output files **HERE AMIT MARK IS 77**

Do you want to continue? yes/no

no

SAMPLE INPUT/OUTPUT FOR FILE LEVEL MULTITHREADING

Enter Teacher's Name: TA1

Enter Student Roll number: 174101058

Update Mark : 1. Increase

2. Decrease

1

Mark to add: 3

Enter Teacher's Name: TA2

Enter Student Roll number: 174101035

Update Mark: 1. Increase

2. Decrease

2

Mark to deduct: 5

Choose one:

1. Without Synchronization

2. With Synchronization

2

Check the output files **HERE KUNAL MARK IS 70 SAVNAM MARK IS 83**

Do you want to continue? yes/no

yes

Choose one:

1. Without Synchronization

2. With Synchronization

1

Check the output files **PROGRAM WILL BEHAVE SEQUENTIAL**

Do you want to continue? yes/no

no

Note:

1. Input will be taken from the console and output will be written to the output files.
2. Although the inputs are taken in sequential manner, after storing the values it should be processed concurrently.
3. Your program should be written in such a way that, it will consider both cases i.e. without synchronization and with synchronization.
4. When you are applying any lock, the lock should be applied to appropriate resources. Always mention where you are applying lock.