**Project Title**

***The Sleeping Teaching Assistant***

**Presented by Project Group 4:**

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**Abstract**

The project is about teaching assistant who provides help to undergraduate students. When teaching assistant has no work, he sleeps. If any student wants help he/she wakes teaching assistant(TA) up. While TA is busy with student, other students can wait on chair and if chairs are full than rest of the students can continue their other works and come back later. Here using Pthread we will create separate threads for n students and separate thread for TA. To implement this project, we will use POSIX synchronization techniques like Mutex locks and Semaphores. When TA is sleeping student, thread will wake up it by semaphore. When TA thread is helping any student thread at given time it will use Mutex lock so that no other student threads can access TA thread at the same time.

**Weekly Schedule**

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| **Weeks** | **Activities** |
| Week 1: 03/01-03/08 | Working on Abstract and first 2 chapters of the project report |
| Week 2: 03/08-03/15 | Deep level understanding of the problem |
| Week 3: 03/15-03/22 | High level planning of algorithm |
| Week 4: 03/22-03/29 | Baselining functions to be used and work on process flow |
| Week 5: 03/29-04/05 | Work on Algorithm structure and code development |
| Week 6: 04/05-04/12 | Working on Code Development |
| Week 7: 04/12-04/19 | Completing code development and verifying the results |
| Week 8: 04/19-04/26 | Working on project report and its submission |
| Week 9: 04/26-05/03 | Preparing the project presentation |