Saad Bin Farooq - 20I-0555

Umer Mukhtar - 20I-0696

# OS Final Project Report

## Overview of functions

The project has used the following functions:

1. **Implement_Start():** Handles file reading and stores process data from the files
2. **Implement_Start_Real():** Handled file reading for realistic scenario (processes2.txt)
3. **CpuFunc():** Simulates the CPU
4. **Controller():** As specified in the document
5. **Scheduler():** As specified in the document
6. **Preempt():** Called to preempt a process, used in Round Robin Scheduling
7. **Forced_preempt():** As specified in the document, used in priority scheduling
8. **Context_switch():** Moves new process into CPU from ready Queue
9. **Yield():** Used for process I/O or waiting
10. **Wake_Up():** As mentioned in the document, moves process to Ready Queue
11. **Terminate():** Terminates process
12. **jobQueue():** Moves process into ready Queue at appropriate time (arrival time)
13. **idle():** As mentioned in document

## Overview of Threads Usage

1. Threads used for each CPU (Detached)
2. Thread used for Job Queue (Detached)
3. Thread used for Controller/Display (Detached)
4. Thread used for scheduler
5. Thread used during yield for processing