

***Operating System Project***

***System Call- (Reader Writer Problem)***

***Asad Ullah Khan (K21-4945)***

***Rohail Rashid Khan (K21-3152)***

***Arham Mehmood (K21-3201)***

***BS-CS (Sec – 4A)***

***Title:* System Call for Semaphore (Example: Reader-Writer Problem)**

***Introduction:* It’s a database related project that consists of a related data in which two types of users access the database. A file is shared between multiple processes, and they are specified as readers and writers.**

***Methodology:* There are basic 4 cases in which the whole process is implemented, (Reader-Writer, (Writer-Reader), (Writer-Writer), (Reader-Reader) cases. The first 3 cases will be error prone because the writer and reader cannot access the same database at the same time, but the usage of a single database by two readers is allowed. Above mentioned cases will work on a single database. To implement all 4 processes, Semaphores will be used which enables us to synchronize all 4 cases. Few other functions related to the project will also be used upon more in-depth knowledge as we go on in the semester. Possible usage of some Data Structure and OOP concepts are possible.**