A) In Readers_Writers_with_Priority.java the bug is because of we are not notifying all the waiting threads in done_read() and done_write() methods. The notify will only notify one of the waiting thread on the condition. But suppose if there are multiple readers are waiting and once writer finished then it should notify all the waiting reader threads and waiting writers thread. Reading can be done in parallel without any data discrepancy.
Only notify causing several threads to wait and might lead to deadlock situation.