Assignment 3

Question 1

According to the Program ReadWrite1.java, the code implements the Reader– Writer problem that is expected to follow two consistency control rules:

1. a 'read' operation may be executed concurrently by two or more readers.
2. a 'write' operation should not be executed concurrently with any 'read' or another 'write' operation

Here the program doesn't properly follow rule 1. In this program the read function is provided as Synchronized which allows only one read thread to execute the function at a time. This limits the actual feature of Reader-Writer where multiple read operations can enter the critical session at the same time.

Sequence Diagram

Sequence diagram attached in the folder with name Q1_seq_diag.png

Finite State Diagram