b1;

Transaction 1 has begun and it has been entered in the transaction table with it's state as Active and timestamp as 1.

r1(Y);

Transaction 1 is Active so entry for data item Y has been made in the lock table and transaction 1 has acquired Read Lock on it.

r1(Z);

Transaction 1 is Active so entry for data item Z has been made in the lock table and transaction 1 has acquired Read Lock on it.

b2;

Transaction 2 has begun and it has been entered in the transaction table with it's state as Active and timestamp as 2.

r2(Y);

Transaction 2 has been appended in the read transaction id list for item Y. That is, it has also acquired Read Lock on Y.

b3;

Transaction 3 has begun and it has been entered in the transaction table with it's state as Active and timestamp as 3.

r3(Y);

Transaction 3 has been appended in the read transaction id list for item Y. That is, it has also acquired Read Lock on Y.

w1(Z);

For the data item Z and transaction ID 1 lock has been upgraded to Write Lock.

w3(Y);

Transaction 3 has been blocked and write operation Y has been added to the waiting operation queue in the transaction table and transaction Id 3 has been added to the waiting list queue in the lock table.

w2(Y);

Transaction 2 has been blocked and write operation Y has been added to the waiting operation queue in the transaction table and transaction Id 2 has been added to the waiting list queue in the lock table.

r2(X);

Transaction 2 has been blocked and read operation X has been added to the waiting operation queue in the transaction table and transaction Id 2 has been added to the waiting list queue in the lock table.

e1;

Transaction 1 has released read lock on Y

Transaction 1 has released write lock on Z

Releasing locks aquired by transaction 1

e3;

Transaction 3 has released read lock on Y

Releasing locks aquired by transaction 3

w2(X);

For the data item X and transaction ID 2 lock has been upgraded to Write Lock.

e2;

Transaction 2 has released read lock on Y

Transaction 2 has released write lock on X

Releasing locks aquired by transaction 2