Algorithm 1 Read Process {API}

1: **function** READ(*key*)

2:

3: **Input:**   *key* → String format key

4: **Output:** *Status* → Status of operation

5: **procedure**

6:     *item ← new Item*()

7:     *item.setKey*(*key*)

8:     *item ← metadb.readMeta*(*item*)

9:     *sb ← new StringBuilder*()

10:

11:     *//Reading blocks part*

12:     **if** (*using_one_sub_db*) **then**

13:         **for** (*i ← 0; i < bCOUNTER; i + +*) **do**

14:             *blocks ← blocksdb.readAll*(*TABLES*[*i*], *item*)

15:             **for** (*Item block : blocks*) **do**

16:                 *sb.append*(*block.getValue*())

17:     **else**

18:         *mblocks ← mdb.readAll*(*TABLES*[0], *item*)

19:         **for** (*Item mblock : blocks*) **do**

20:             *sb.append*(*block.getValue*())

21:

22:         *bblocks ← bdb.readAll*(*TABLES*[1], *item*)

23:         **for** (*Item bblock : blocks*) **do**

24:             *sb.append*(*block.getValue*())

25:

26:         *tblocks ← tdb.readAll*(*TABLES*[2], *item*)

27:         **for** (*Item tblock : blocks*) **do**

28:             *sb.append*(*block.getValue*())

29:

30:     *status.setValue*(*sb.toString*())

31:     *status.setStatus*(*OK*)

32:     **return** *status*