

### Query 1

```
Select rs.*
From RFID_Stream[UNBOUND] AS rs, (select *
From StaticDB sdb
Where sdb.RoomNo = "036"
) As sdb36
Where sdb36.ReaderID = rs.ReaderID
```

### Query 2

```
Select DISTINCT movedOptimized.bookID
From(
Select b.BookID As bookID, sdb.RoomNo As roomNO
From RFID_Stream [SIZE 30 MINUTES TIME] AS rs, Books AS b, StaticDB AS sdb
Where b.Tag_ID == rs.Tag_ID and sdb.ReaderID == rs.ReaderID
) As movedNotOptimized
(
Select DISTINCT b.BookID As bookID, sdb.RoomNo As roomNO
From RFID_Stream [SIZE 30 MINUTES TIME] AS rs, Books b, StaticDB AS sdb
Where b.Tag_ID = rs.Tag_ID and sdb.ReaderID = rs.ReaderID
) As movedOptimized
Where movedOptimized.bookID = movedNotOptimized.bookID and movedOptimized.roomNO != movedNotOptimized.roomNO
```

### Query 3

```
Select b.*
From RFID_Stream [SIZE 12 HOURS TIME] AS rs , Books AS b
Where rs.Tag_ID = b.Tag_ID and b.Checkedout = true
```

### Query 4 (Assumption Reading Room has Room\_number 04)

```
SELECT DISTINCT bookID
FROM (SELECT *
      FROM books AS B, RFIDreader[SIZE 12 HOURS TIME] AS R, StaticDatabase AS D
      WHERE B.Tag_ID= R.Tag_ID AND R.ReaderID = D.ReaderID AND D.RoomNo != 04) AS first,
      (SELECT *
      FROM books AS B, RFIDreader[SIZE 12 HOURS TIME] AS R, StaticDatabase AS D
      DWHERE B.Tag_ID = R.Tag_ID AND R.ReaderID = D.ReaderID AND D. RoomNo = 04)AS second,
      (SELECT *FROM books AS B, RFIDreader[SIZE 12 HOURS TIME] AS R, StaticDatabase AS D
      DWHERE B.Tag_ID = R.Tag_ID AND R.ReaderID = D.ReaderID AND D. RoomNo!= 04) AS third
WHERE first.bookID = second.bookID
AND second.bookID = third.bookID
AND first.timestamp < second.timestamp AND
second.timestamp<third.timestamp
```

### Query 5

```
Select b.BookID
From Books AS b
Where b.BookID Not IN(
SELECT b.BookID
FROM RFIDreader[Size 1 MINUTES TIME] AS rs, Books AS b
WHERE rs.Tag_ID = b.Tag_ID
) and b.CheckedOut = false
```