30.4

BOOKS AUD:

```sql
CREATE TABLE BOOKS_AUD (
            EVENT_ID INT(11) NOT NULL AUTO_INCREMENT,
            EVENT_DATE DATETIME NOT NULL,
            EVENT_TYPE VARCHAR(10) DEFAULT NULL,
            BOOK_ID INT(11) NOT NULL,
            OLD_BOOK_ID INT(11),
            TITLE VARCHAR(255),
            PUBYEAR INT(11),
            PRIMARY KEY (EVENT_ID)
);


DELIMITER $$

CREATE TRIGGER BOOKS_INSERT AFTER INSERT ON BOOKS
   FOR EACH ROW
BEGIN
   INSERT INTO BOOKS_AUD (EVENT_DATE, EVENT_TYPE, BOOK_ID, TITLE,
                PUBYEAR)
      VALUE(CURTIME(), "INSERT", NEW.BOOK_ID, NEW.TITLE, NEW.PUBYEAR);
END $$

DELIMITER ;


DELIMITER $$

CREATE TRIGGER BOOKS_DELETE AFTER DELETE ON BOOKS
   FOR EACH ROW
BEGIN
   INSERT INTO BOOKS_AUD (EVENT_DATE, EVENT_TYPE, BOOK_ID)
      VALUE(CURTIME(), "DELETE", OLD.BOOK_ID);
END $$

DELIMITER ;


DELETE FROM BOOKS WHERE BOOK_ID = 23;
```

```
DELIMITER $$

CREATE TRIGGER BOOKS_UPDATE AFTER UPDATE ON BOOKS
    FOR EACH ROW
BEGIN
    INSERT INTO BOOKS_AUD (EVENT_DATE, EVENT_TYPE, BOOK_ID,
OLD_BOOK_ID)
        VALUE(CURTIME(), "UPDATE", NEW.BOOK_ID, OLD.BOOK_ID);
END $$

DELIMITER ;
```

```
UPDATE BOOKS SET BOOK_ID = 22 WHERE BOOK_ID = 66;
```

READER AUD:

```
CREATE TABLE READERS_AUD (
                EVENT_ID INT(11) NOT NULL AUTO_INCREMENT,
                EVENT_DATE DATETIME NOT NULL,
                EVENT_TYPE VARCHAR(10) DEFAULT NULL,
                READER_ID INT(11) NOT NULL,
                OLD_READER_ID INT(11),
                NEW_FIRSTNAME VARCHAR(255),
                OLD_FIRSTNAME VARCHAR(255),
                NEW_LASTNAME VARCHAR(255),
                OLD_LASTNAME VARCHAR(255),
                NEW_PESELID VARCHAR(255),
                OLD_PESELID VARCHAR(255),
                PRIMARY KEY (EVENT_ID)
);
```

```
DELIMITER $$

CREATE TRIGGER READER_INSERT AFTER INSERT ON READERS
    FOR EACH ROW
BEGIN
    INSERT INTO READERS_AUD (EVENT_DATE, EVENT_TYPE, READER_ID,
NEW_FIRSTNAME,
                NEW_LASTNAME, NEW_PESELID)
```

```
      VALUE(CURTIME(), "INSERT", NEW.READER_ID, NEW.FIRSTNAME,
NEW.LASTNAME, NEW_PESELID);
END $$

DELIMITER ;




INSERT INTO READERS(FIRSTNAME, LASTNAME, PESELID)
VALUES ('Mike', 'Bike', '99012217938');




DELIMITER $$

CREATE TRIGGER READER_DELETE AFTER DELETE ON READERS
   FOR EACH ROW
BEGIN
   INSERT INTO READERS_AUD (EVENT_DATE, EVENT_TYPE, READER_ID)
      VALUE(CURTIME(), "DELETE", OLD.READER_ID);
END $$

DELIMITER ;




DELETE FROM READERS WHERE READER_ID = 6;




DELIMITER $$

CREATE TRIGGER READER_UPDATE AFTER UPDATE ON READERS
   FOR EACH ROW
BEGIN
   INSERT INTO READERS_AUD (EVENT_DATE, EVENT_TYPE,
READER_ID,NEW_FIRSTNAME, NEW_LASTNAME, NEW_PESELID,
OLD_FIRSTNAME, OLD_LASTNAME, OLD_PESELID)
      VALUE(CURTIME(), "UPDATE", NEW.READER_ID, NEW.FIRSTNAME,
NEW.LASTNAME, NEW.PESELID ,OLD.FIRSTNAME, OLD.LASTNAME,
OLD.PESELID);
END $$

DELIMITER ;
```

UPDATE READERS *SET* FIRSTNAME = 'Sam' *WHERE* FIRSTNAME = 'Mike';