SQL Schema

```
CREATE TABLE Review(
review_id INTEGER,
username CHAR(20) NOT NULL,
sports_id INTEGER NOT NULL,
date DATE,
rating INTEGER,
comments CHAR,
like_count INTEGER,
PRIMARY KEY (review_id),
FOREIGN KEY (username) REFERENCES Users
ON DELETE CASCADE,
FOREIGN KEY (sports_id) REFERENCES Sports
ON DELETE CASCADE)
```

```
CREATE TABLE Likes(
review_id INTEGER,
username CHAR(20),
when: DATE,
PRIMARY KEY (review_id, username),
FOREIGN KEY (review_id) REFERENCES Review
ON DELETE CASCADE,
FOREIGN KEY (username) REFERENCES Users,
ON DELETE CASCADE)
```

```
CREATE TABLE Written_by(
review_id INTEGER,
username CHAR(20),
sport_id INTEGER,
status CHAR(20),
when: DATE,
PRIMARY KEY (review_id, username, sport_id),
FOREIGN KEY (review_id) REFERENCES Review
ON DELETE CASCADE,
FOREIGN KEY (username) REFERENCES Users
ON DELETE CASCADE,
FOREIGN KEY (sport_id) REFERENCES Sports
ON DELETE CASCADE)
```

```
CREATE TABLE Users(
username CHAR(20),
coordinate REAL NOT NULL,
name CHAR(20),
age INTEGER,
PRIMARY KEY (username),
FOREIGN KEY (coordinate) REFERENCES
Location)
```

```
CREATE TABLE Status(
username CHAR(20),
sport_id: INTEGER,
status: CHAR(20),
PRIMARY KEY (username, sports_id),
FOREIGN KEY (username) REFERENCES Users
ON DELETE CASCADE,
FOREIGN KEY (sport_id) REFERENCES Sports
ON DELETE CASCADE)
```

```
CREATE TABLE Lives_in(
coordinate REAL,
username CHAR(20),
PRIMARY KEY (username),
FOREIGN KEY (coordinate) REFERENCES
Location ON DELETE CASCADE,
FOREIGN KEY (username) REFERENCES Users
ON DELETE CASCADE)
```

```
CREATE TABLE Sports(
sports_id INTEGER,
coordinate: REAL NOT NULL,
sport_type: CHAR(20),
trail_name: CHAR (100),
difficulty: CHAR(20),
rating: REAL,
price: REAL,
num_people_completed: INTEGER,
PRIMARY KEY (spots_id),
FOREIGN KEY (coordinate) REFERENCES
Location)
CREATE TABLE Locate_in(
coordinate REAL,
sport_id INTEGER,
PRIMARY KEY (sport_id),
FOREIGN KEY (sports_id) REFERENCES Sports
ON DELETE CASCADE)
```

```
CREATE TABLE Location(
coordinate REAL,
country CHAR(40),
state CHAR(11),
city CHAR(40),
PRIMARY KEY (coordinate))


CREATE TABLE Equipment(
equipment_name CHAR(40),
cost: REAL,
PRIMARY KEY (name))


CREATE TABLE Needs(
name CHAR,
sport_id INTEGER,
PRIMARY KEY (name, sports_id),
FOREIGN KEY (name) REFERENCES Equipment
ON DELETE CASCADE,
FOREIGN KEY (sports_id) REFERENCES Sports
ON DELETE CASCADE)
```

Constraints that cannot be captured with the E/R syntax

1. **sport_type** in **Sports table** is limited to be one of ‘skiing’, ‘hiking’, ‘biking’, ‘kayaking’, ‘scuba diving’
2. **difficulty** in **Sports table** is limited to “beginner”, “intermediate”, “advanced”
3. **status** in **Status table** is limited to “completed” or “saved”
4. **Written_by** table only allows tuples with **status** = ‘completed’