

**What is a *foreign key constraint*? Why are such constraints important? What is *referential integrity*?**

A foreign key constraint ensures the integrity of the joined data, so you don't accidentally access tables without the key. Constraints are essential because they keep security and, more importantly, maintain consistency between different relations. Referential integrity is when the target that is being referenced is guaranteed to be found. It's the idea that for every value in one attribute, not only will a value exist, but it will be the same value that would exist in a different relation.

**Write SQL statements to create the corresponding relations to the ER diagram you designed for Exercise 2.8 in HW #2. If your translation cannot capture any constraints in the ER diagram, explain why.**

```
CREATE DATABASE artbase;
USE artbase;

CREATE TABLE artist (
    artist_name CHAR(20),
    artist_age INTEGER NOT NULL,
    arist_birthplace CHAR(20),
    arist_artstyle CHAR(20),
    PRIMARY KEY (artist_name)
);
```

```
CREATE TABLE artwork(  
    art_title CHAR(20),  
    art_price REAL,  
    art_year INTEGER NOT NULL,  
    art_type CHAR(20),  
    PRIMARY KEY (art_title)  
);  
  
CREATE TABLE customer(  
    customer_name CHAR(20),  
    money_spent REAL,  
    customer_address CHAR(20),  
    PRIMARY KEY (customer_name)  
);
```