Sure! Here's the complete CREATE TABLE statement for the products table, followed by an explanation of the choices:

CREATE TABLE products (

product\_id INTEGER PRIMARY KEY,

city TEXT NOT NULL,

product\_url TEXT NOT NULL UNIQUE,

tags TEXT NOT NULL,

product\_picture TEXT NOT NULL

);

**Explanation of Data Types and Constraints:**

**product\_id INTEGER PRIMARY KEY**

* **Data Type: INTEGER**  
  Chosen because product IDs are numeric and need to be unique.
* **Constraint: PRIMARY KEY**  
  Ensures that each product has a unique identifier and also serves as the row’s unique key in the table.

**city TEXT NOT NULL**

* **Data Type: TEXT**  
  Used instead of VARCHAR because SQLite treats both similarly. TEXT is more idiomatic for SQLite.
* **Constraint: NOT NULL**  
  Ensures that the city information is always provided.

**product\_url TEXT NOT NULL UNIQUE**

* **Data Type: TEXT**  
  Suitable for storing full-length URLs.
* **Constraints:**
  + NOT NULL: Makes sure every product has a URL.
  + UNIQUE: Prevents duplicate entries for the same product URL, ensuring each product listing is distinct.

**tags TEXT NOT NULL**

* **Data Type: TEXT**  
  Used for categorization tags. While tags might be stored as comma-separated values or JSON strings, storing them as plain text keeps it simple.
* **Constraint: NOT NULL**  
  Ensures that every product has at least one category tag.

**product\_picture TEXT NOT NULL**

* **Data Type: TEXT**  
  Ideal for storing image URLs, which can vary in length.
* **Constraint: NOT NULL**  
  Ensures that each product entry includes an image link.

**✅ Approach to Handling the city Column:**

**Data Type Used:**

TEXT

**Constraints Applied:**

NOT NULL

**💡 Why This Approach Was Chosen:**

**1. Data Type: TEXT**

* **Reason:** City names are string values (e.g., "Kuala Lumpur", "New York").
* In SQLite, TEXT is the standard type for storing character strings.
* Although some databases use VARCHAR(n), SQLite doesn’t enforce length limits on TEXT vs. VARCHAR, so TEXT is simpler and sufficient.

**2. Constraint: NOT NULL**

* **Reason:** Every product listing must be associated with a city.
* This ensures **data integrity**, by preventing incomplete or invalid records that are missing location info.

**✅ Summary:**

By choosing TEXT NOT NULL for the city column, we ensure that all products are always tied to a location, and the schema remains flexible and efficient for handling various city names without any unnecessary complexity.

INSERT INTO products (

product\_id,

city,

product\_url,

tags,

product\_picture

) VALUES (

1,

'Kuala Lumpur',

'https://example.com/products/1',

'electronics, gadgets',

'https://example.com/images/product1.jpg'

);

SELECT \* FROM products

WHERE product\_id = 1;