Directions: Use `INSERT`, `UPDATE`, and `DELETE` queries to accomplish the following tasks. The website `https://generatedata.com` can be used to generate (fictitious) data.

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1. Add a fictitious customer to the database. Do not use a column list.

   Solution:

   ```
   INSERT INTO Customers VALUES
   (default,'John', 'Smith', '941-261-9620',
   'smitty@yopmail.com','810 Hollywood Blvd.', NULL,
   '90210');
   ```

2. Add a fictitious customer to the database. This time use a column list, but not in the same order as the columns in the table.

   Solution:

   ```
   INSERT INTO Customers(fname, lname, phone, email, address1, address2, zip, id)
   VALUES
   ('John', 'James','207-743-1234', 'jj@gmail.com','45 E. 9th St.','Apt #23', '
       04106', default)
   ```

3. Using only <u>one</u> `INSERT` statement, add three more (fictitious) customers to the database.

   Solution:

   ```
   INSERT INTO Customers(id, fname, lname, phone, email, address1, address2, zip)
   VALUES
   (default, 'John', 'Jones','207-743-8632', 'jonesy@gmail.com','85 E. 5th St.','
       Apt #3', '04106'),
   (default, 'Jane', 'Smith', '216-285-9512', 'maryjane@gmail.com', '420 Franklin
       Ave.', NULL, '26034'),
   (default, 'Rick', 'James','513-583-9281','superfreak@gmail.com','4297 Norwich
       Ave.',NULL,'04005');
   ```

4. Delete the customer added in Question 1. **Warning!** Be sure to use a `WHERE` clause, else all customers will be removed.

   Solution:

   ```
   DELETE FROM Customers
   WHERE id='1111';
   ```

5. Update any products with category 1068 to 116, then remove category 1068 (Books) from the Categories table. This requires two queries. Note: write the first query even if there are no products with category 1068 (if there are none, and there are not, then none will get updated). The following warning will probably be displayed: "`Error Code:  1175.  You are using safe update mode, and you tried to update a table without a WHERE that uses a KEY column.  To disable safe mode, toggle the option in Preferences` → `SQL Editor & reconnect`." Follow their hint by unchecking safe mode in the preferences, or use the command: `SET SQL_SAFE_UPDATES=0;`. Note: there are no records that have 1068, so write the query and paste in the homework, i.e., it is not necessary to run this query, but only "pretend" to do so.

   Solution:

   ```
   SET SQL_SAFE_UPDATES=0;
   UPDATE dbsoln_Store.Products
   SET
       dbsoln_Store.Products.category_id = 116
   WHERE
       dbsoln_Store.Products.category_id = 1068;

   DELETE FROM dbsoln_Store.Categories
   WHERE
       Categories.category_id = 1068;
   ```

6. Find the URL for Von Holtzbrink Publishers and update the manufacturers' table accordingly. Warning: use a `WHERE` clause, else you will set every manufacturer's URL to the same.

   Solution:

   ```
   UPDATE dbsoln_Store.Manufacturers SET url='https://www.holtzbrinck.com' WHERE
       manufacturer_id = 157;
   ```

7. Edit Bird-X (manufacturer 206) in the manufacturer's table using *one* update query. In particular, change the name from "Bird-X Inc" to "Bird-X, Inc." and set their url entry to "https://bird-x.com".

   Solution:

   ```
   UPDATE dbsoln_Store.Manufacturers
   SET
       url = 'https://bird-x.com',
       manufacturer = 'Bird-X, Inc.'
   WHERE
       manufacturer_id = 206;
   ```

8. Create a new category called "Musical Instruments". Note: the primary key, category_id, is NOT auto-incremented. You will need to set this value to a unique value manually. HINT: one possible method for doing this is to view the Categories table, sort by category_id, then

visually inspect the last one and add 1 to it for use in your insert query. A better method is to use a query to get the value, set it to a variable (say `@x`), then use this variable in the insertion query. Here is the code I used to set this variable, `SET @x=(SELECT category_id+1 FROM Categories ORDER BY category_id desc limit 1)`.

Solution:

```sql
SET @cid = (SELECT category_id+1 FROM Categories ORDER BY category_id desc
    limit 1);

INSERT INTO Categories VALUES (@cid,'Musical Instruments');
```

9. Select products (id) that have unknown categories (there are several unknown categories) and that have 'Woodstock' or 'Music' (or similar) in their name or description.

Solution:

```sql
SELECT  product_id
FROM
    Products inner join Categories on Products.category_id = Categories.
        category_id
WHERE
        category LIKE 'Unknown%'
    and (`name` LIKE '%woodstock%'
        AND `name` LIKE '%music%')
        OR (description LIKE '%woodstock%'
        AND description LIKE '%music%');

# ----------------------- #

SELECT
    product_id, name, description
FROM
    Products
WHERE
    category_id IN (SELECT
            category_id
        FROM
            Categories
        WHERE
            category LIKE 'Unknown%');
```

10. Update the categories of the products with the category "Musical Instruments" from Question 8. Hint: use results from Question 9.

Solution:

```sql
use dbsoln_Store;
SET SQL_SAFE_UPDATES=0;

update Products as P  inner join Products as Q on P.product_id = Q.product_id
inner join  Categories as C on Q.category_id = C.category_id
```

```sql
set P.category_id = 2149
WHERE
        C.category LIKE 'Unknown%'
    and (P.`name` LIKE '%woodstock%'
        AND P.`name` LIKE '%music%')
        OR (P.description LIKE '%woodstock%'
        AND P.description LIKE '%music%');

# Check it
SELECT * FROM dbsoln_Store.Products where category_id = 2149;
```