Shop Management System

You have been assigned to develop a basic shop management system using MySQL and Python. This system should have two tables.

Tables Structure:
Products table with the following columns:
    product_id (Primary Key, INT, auto-increment)
    product_name (VARCHAR)
    category_id (INT, a foreign key to Categories table)
    price (INT)
    quantity (INT)

Categories table with the following columns:
    category_id (Primary Key, INT, auto-increment)
    category_name (VARCHAR)

Functions:
Add New Entries:
    add_product(product_id, product_name, category_id, price, quantity) to add a new product.
    add_category(category_id, category_name) to add a new category.

Remove Entries:
    remove_product(product_id) to remove a product.
    remove_category(category_id) to remove a category.

Edit Entries:
    edit_product(product_id, product_name, category_id, price, quantity) to edit an existing product
    edit_category(category_id, category_name) to edit an existing category.

Search Entries:
    search_products(name_or_category) to find products by name or category.
    search_categories(category_name) to find categories by name.

Display Entries:
    display_products() to display all products.
    display_categories() to display all categories.