Design a simple database for Online Shopping Cart using Python to access the back-end MySQL database.

The online shopping cart must contain the following modules.

1. The insert module must be able to accept the prod_id (primary key), product name, category, quantity, price, discount, date of manufacture and date of expiry and store it in the database.

2. The find module must be able to accept the name of the product and display all the details of the product.

3. The search_in_category module must be able to accept the name of the category and display all the details of the products in the categories.

4. The update module must be able to update the price of the products.

5. The provide_discount module must be able to provide the discount of the products in a particular category.

6. The delete_module must be able to delete/ cancel the product if the expiry date is not valid.

7. The notification_module must indicate free shipping if the total product price exceeds Rs.1000.