

Amazon-themed MySQL assignment

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Database Name: AmazonDB

Tables and Schema:

1. Users:

- user_id (INT, PRIMARY KEY, AUTO_INCREMENT)
- name (VARCHAR(100), NOT NULL)
- email (VARCHAR(150), UNIQUE, NOT NULL)
- registered_date (DATE, NOT NULL)
- membership (ENUM('Basic', 'Prime'), DEFAULT 'Basic')

2. Products:

- product_id (INT, PRIMARY KEY, AUTO_INCREMENT)
- name (VARCHAR(200), NOT NULL)
- price (DECIMAL(10, 2), NOT NULL)
- category (VARCHAR(100), NOT NULL)
- stock (INT, NOT NULL)

3. Orders:

- order_id (INT, PRIMARY KEY, AUTO_INCREMENT)
- user_id (INT, FOREIGN KEY REFERENCES Users(user_id))
- order_date (DATE, NOT NULL)
- total_amount (DECIMAL(10, 2), NOT NULL)

4. OrderDetails:

- order_details_id (INT, PRIMARY KEY, AUTO_INCREMENT)
- order_id (INT, FOREIGN KEY REFERENCES Orders(order_id))
- product_id (INT, FOREIGN KEY REFERENCES Products(product_id))
- quantity (INT, NOT NULL)

Data Insertion:

Users:

```
INSERT INTO Users (name, email, registered_date, membership) VALUES
('Alice Johnson', 'alice.j@example.com', '2024-01-15', 'Prime'),
('Bob Smith', 'bob.s@example.com', '2024-02-01', 'Basic'),
('Charlie Brown', 'charlie.b@example.com', '2024-03-10', 'Prime'),
('Daisy Ridley', 'daisy.r@example.com', '2024-04-12', 'Basic');
```

Products:

```
INSERT INTO Products (name, price, category, stock) VALUES
('Echo Dot', 49.99, 'Electronics', 120),
('Kindle Paperwhite', 129.99, 'Books', 50),
('Fire Stick', 39.99, 'Electronics', 80),
('Yoga Mat', 19.99, 'Fitness', 200),
('Wireless Mouse', 24.99, 'Electronics', 150);
```

Orders:

```
INSERT INTO Orders (user_id, order_date, total_amount) VALUES
```

```
(1, '2024-05-01', 79.98),  
(2, '2024-05-03', 129.99),  
(1, '2024-05-04', 49.99),  
(3, '2024-05-05', 24.99);
```

OrderDetails:

```
INSERT INTO OrderDetails (order_id, product_id, quantity) VALUES  
(1, 1, 2),  
(2, 2, 1),  
(3, 1, 1),  
(4, 5, 1);
```

Assignment Questions:

1. List all customers who have made purchases of more than \$80.
2. Retrieve all orders placed in the last 280 days along with the customer name and email.
3. Find the average product price for each category.
4. List all customers who have purchased a product from the category Electronics.
5. Find the total number of products sold and the total revenue generated for each product.
6. Update the price of all products in the Books category, increasing it by 10%.
Query.
7. Remove all orders that were placed before 2020.
8. Write a query to fetch the order details, including customer name, product name, and quantity, for orders placed on 2024-05-01.
9. Fetch all customers and the total number of orders they have placed.
10. Retrieve the average rating for all products in the Electronics category.
11. List all customers who purchased more than 1 units of any product, including the product name and total quantity purchased.
12. Find the total revenue generated by each category along with the category name.