

Sample SQL queries for each entity in the database. These examples cover basic CRUD (Create, Read, Update, Delete) operations for each entity.

User Table

- Select Query:
 - `SELECT * FROM User WHERE LastLogin > '2024-01-01';`
 - Explanation: Retrieves all users who have logged in after January 1, 2024
- Insert Query:
 - `INSERT INTO User (Username, Password, Email, FirstName, LastName, DateOfBirth) VALUES ('newuser', 'password123', 'new.user@example.com', 'New', 'User', '1992-02-02');`
 - Explanation: Registers a new user with details including username, password, email, first name, last name and date of birth.
- Update Query:
 - `UPDATE User SET Email = 'updated.email@example.com' WHERE UserID = 1;`
 - Explanation: Updates the email address for the user with ID 1.
- Delete Query:
 - `DELETE FROM User WHERE UserID = 2;`
 - Explanation: Deletes the user with ID 2.

Address Table

- Select Query:
 - `SELECT * FROM Address WHERE Country = 'Norway';`
 - Explanation: Retrieves all addresses located in Norway.
- Insert Query:
 - `INSERT INTO Address (UserID, Street, City, State, PostalCode, Country, IsDefault, AddressType) VALUES (3, 'Bogstadveien 30', 'Oslo', 'Oslo', '0355', 'Norway', 1, 'Shipping');`
 - Explanation: Inserts a new shipping address for the user with ID 3.
- Update Query:
 - `UPDATE Address SET IsDefault = 0 WHERE AddressID = 1 AND UserID = 1;`
 - Explanation: Changes the default status of the address for user ID 1.
- Delete Query:
 - `DELETE FROM Address WHERE AddressID = 3;`
 - Explanation: Deletes the address with ID 3.

Product Table

- Select Query:
 - `SELECT * FROM Product WHERE BrandID = 2;`
 - Explanation: Retrieves all products associated with the brand ID 2 (typically Apple).
- Insert Query:
 - `INSERT INTO Product (Name, Description, Price, StockQuantity, BrandID, CategoryID, SKU, IsActive) VALUES ('Google Nest Hub', 'Smart display with Google Assistant.', 89.99, 200, 1, 1, 'SKU9015', 1);`
 - Explanation: Adds a new product, Google Nest Hub, including details like price, stock, brand, and category.
- Update Query:
 - `UPDATE Product SET Price = 99.99 WHERE ProductID = 10;`
 - Explanation: Updates the price of the product with ID 10.
- Delete Query:
 - `DELETE FROM Product WHERE ProductID = 5;`
 - Explanation: Removes the product with ID 5 from the database.

Brand Table

- Select Query:
 - `SELECT * FROM Brand WHERE BrandID BETWEEN 1 AND 3;`
 - Explanation: Retrieves all brands with IDs from 1 to 3.
- Insert Query:
 - `INSERT INTO Brand (Name, Description) VALUES ('Asus', 'Taiwanese multinational computer and phone hardware and electronics company.');`
- Update Query:
 - `UPDATE Brand SET Description = 'Updated brand description here' WHERE BrandID = 7;`
 - Explanation: Updates the description for the brand with ID 7.
- Delete Query:
 - `DELETE FROM Brand WHERE BrandID = 6;`
 - Explanation: Removes the brand with ID 6 from the database.

Category Table

- Select Query:
 - `SELECT * FROM Category;`

- Explanation: Retrieves all categories in the database.
- Insert Query:
 - INSERT INTO Category (Name, Description) VALUES ('Printers', 'Devices that produce a hard copy by transferring ink onto paper.');
 - Explanation: Inserts a new category for printers with a description.
- Update Query:
 - UPDATE Category SET Description = 'Updated category description' WHERE CategoryID = 4;
 - Explanation: Updates the description of the category with ID 4.
- Delete Query:
 - DELETE FROM Category WHERE CategoryID = 3;
 - Explanation: Deletes the category with ID 3.

Order Table

- Select Query:
 - SELECT * FROM `Order` WHERE TotalAmount > 1000;
 - Explanation: Retrieves orders where the total amount is greater than \$1000.
- Insert Query:
 - INSERT INTO `Order` (UserID, OrderDate, TotalAmount, OrderStatusID) VALUES (2, '2024-04-25', 1200.50, 3);
 - Explanation: Adds a new order with details including user ID, order date, total amount, and status ID.
- Update Query:
 - UPDATE `Order` SET OrderStatusID = 2 WHERE OrderID = 1;
 - Explanation: Changes the order status of the order with ID 1 to 'Shipped'.
- Delete Query:
 - DELETE FROM `Order` WHERE OrderID = 3;
 - Explanation: Deletes the order with ID 3.

OrderItem Table

- Select Query:
 - SELECT * FROM OrderItem WHERE OrderID = 1;
 - Explanation: Retrieves all items associated with order ID 1.
- Insert Query:
 - INSERT INTO OrderItem (OrderID, ProductID, Quantity, Subtotal) VALUES (1, 7, 2, 3999.98);

- Explanation: Adds two units of product ID 7 to order ID 1 with a subtotal for these items.
- Update Query:
 - UPDATE OrderItem SET Quantity = 3, Subtotal = 5999.97 WHERE OrderID = 1 AND ProductID = 7;
 - Explanation: Updates the quantity and subtotal for product ID 7 in order ID 1.
- Delete Query:
 - DELETE FROM OrderItem WHERE OrderID = 2 AND ProductID = 11;
 - Explanation: Deletes the order item entry for product ID 11 from order ID 2.

OrderStatus Table

- Select Query:
 - SELECT * FROM OrderStatus WHERE OrderStatusID = 1;
 - Explanation: Retrieves details for the order status with ID 1, typically "Placed".
- Insert Query:
 - INSERT INTO OrderStatus (StatusName, Description) VALUES ('Processing', 'Order is being processed.');
 - Explanation: Adds a new order status called "Processing" with a description.
- Update Query:
 - UPDATE OrderStatus SET Description = 'Order has been shipped and is en route to the customer.' WHERE OrderStatusID = 2;
 - Explanation: Updates the description for the order status with ID 2.
- Delete Query:
 - DELETE FROM OrderStatus WHERE OrderStatusID = 3;
 - Explanation: Deletes the order status with ID 3.

Payment Table

- Select Query:
 - SELECT * FROM Payment WHERE PaymentMethod = 'Credit Card';
 - Explanation: Retrieves all payments made using a Credit Card.
- Insert Query:

- INSERT INTO Payment (OrderID, PaymentMethod, Amount, PaymentDate, PaymentStatusID, TransactionID) VALUES (2, 'Debit Card', 120.50, '2024-04-15', 1, 'TX200003');
- Explanation: Adds a new payment record for order ID 2 using a Debit Card.
- Update Query:
 - UPDATE Payment SET Amount = 130.75 WHERE PaymentID = 1;
 - Explanation: Updates the payment amount for the payment with ID 1.
- Delete Query:
 - DELETE FROM Payment WHERE PaymentID = 2;
 - Explanation: Deletes the payment record with ID 2.

PaymentStatus Table

- Select Query:
 - SELECT * FROM PaymentStatus WHERE PaymentStatusID = 1;
 - Explanation: Retrieves details for the payment status with ID 1, typically "Completed".
- Insert Query:
 - INSERT INTO PaymentStatus (StatusName) VALUES ('Awaiting Confirmation');
 - Explanation: Adds a new payment status "Awaiting Confirmation".
- Update Query:
 - UPDATE PaymentStatus SET StatusName = 'Failed' WHERE PaymentStatusID = 3;
 - Explanation: Changes the status name of payment status ID 3 to "Failed".
- Delete Query:
 - DELETE FROM PaymentStatus WHERE PaymentStatusID = 2;
 - Explanation: Deletes the payment status with ID 2.

ShippingDetail Table

- Select Query:
 - SELECT * FROM ShippingDetail WHERE OrderID = 1;
 - Explanation: Retrieves shipping details for order ID 1.
- Insert Query:

- INSERT INTO ShippingDetail (OrderID, RecipientName, AddressID, ShippingMethod, ShippingCost, ExpectedDeliveryDate, TrackingNumber) VALUES (2, 'Bob Brown', 2, 'DHL', 15.00, '2024-05-05', 'TRACK2002');
- Explanation: Adds new shipping details for order ID 2, specifying the recipient, address ID, shipping method, cost, expected delivery date, and tracking number.
- Update Query:
 - UPDATE ShippingDetail SET IsDelivered = 1, DeliveryDate = '2024-04-25' WHERE ShippingID = 1;
 - Explanation: Updates the shipping record to mark it as delivered on April 25, 2024.
- Delete Query:
 - DELETE FROM ShippingDetail WHERE ShippingID = 2;
 - Explanation: Deletes the shipping detail record with ID 2.

Taxes Table

- Select Query:
 - SELECT * FROM Taxes WHERE TaxPercent > 10.00;
 - Explanation: Retrieves all tax entries where the tax percent is greater than 10%.
- Insert Query:
 - INSERT INTO Taxes (Description, TaxPercent, ApplicableToCategoryID) VALUES ('Environmental Tax', 8.00, 3);
 - Explanation: Adds a new tax entry called "Environmental Tax" with a tax percentage of 8% applicable to category ID 3 (typically for tablets).
- Update Query:
 - UPDATE Taxes SET TaxPercent = 19.00 WHERE TaxID = 4;
 - Explanation: Updates the tax percentage to 19% for the tax entry with ID 4.
- Delete Query:
 - DELETE FROM Taxes WHERE TaxID = 3;
 - Explanation: Deletes the tax entry with ID 3.

Wishlist Table

- Select Query:
 - SELECT * FROM Wishlist WHERE UserID = 1;
 - Explanation: Retrieves all wishlist entries for user ID 1.

- Insert Query:
 - INSERT INTO Wishlist (UserID, ProductID, AddedDate, Name) VALUES (2, 8, '2024-04-20', 'Tech Favorites');
 - Explanation: Adds a new wishlist entry for user ID 2, including a product ID 8 added on April 20, 2024, under the list named "Tech Favorites".
- Update Query:
 - UPDATE Wishlist SET Name = 'Updated Wishlist' WHERE WishlistID = 1 AND UserID = 1;
 - Explanation: Updates the name of the wishlist for user ID 1 and wishlist ID 1 to "Updated Wishlist".
- Delete Query:
 - DELETE FROM Wishlist WHERE WishlistID = 2 AND UserID = 2;
 - Explanation: Deletes the wishlist entry for user ID 2 with wishlist ID 2.