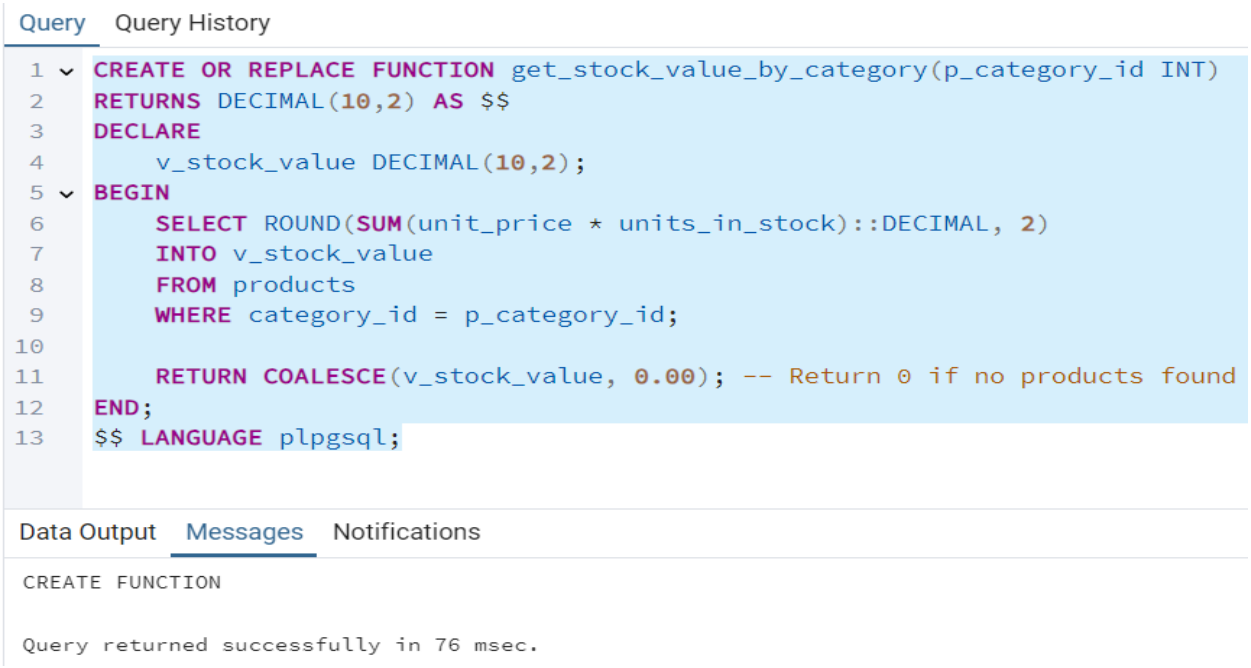
Day 10 Assignment SQL

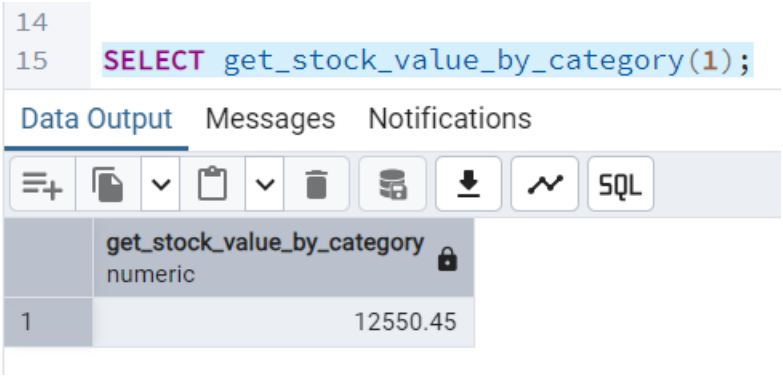
1. Function: Total Stock Value for a Given Category

```
CREATE OR REPLACE FUNCTION get_stock_value_by_category(p_category_id
INT)
RETURNS DECIMAL(10,2) AS $$
DECLARE
  v_stock_value DECIMAL(10,2);
BEGIN
  SELECT ROUND(SUM(unit_price * units_in_stock)::DECIMAL, 2)
  INTO v_stock_value
  FROM products
  WHERE category_id = p_category_id;

  RETURN COALESCE(v_stock_value, 0.00); -- Return 0 if no products found
END;
$$ LANGUAGE plpgsql;
```



SELECT get_stock_value_by_category(1);



2. Cursor Query Example (Read Products One by One)

```
DO $$
DECLARE
  cur_products CURSOR FOR
    SELECT product_id, product_name, unit_price FROM products;

  rec_product RECORD;
BEGIN
  OPEN cur_products;

  LOOP
    FETCH cur_products INTO rec_product;
    EXIT WHEN NOT FOUND;

    RAISE NOTICE 'Product ID: %, Name: %, Price: %',
      rec_product.product_id, rec_product.product_name,
rec_product.unit_price;
  END LOOP;

  CLOSE cur_products;
END;
$$;
```

```
17  DO $$
18  DECLARE
19      cur_products CURSOR FOR
20          SELECT product_id, product_name, unit_price FROM products;
21
22      rec_product RECORD;
23  BEGIN
24      OPEN cur_products;
25
26      LOOP
27          FETCH cur_products INTO rec_product;
28          EXIT WHEN NOT FOUND;
29
30          RAISE NOTICE 'Product ID: %, Name: %, Price: %',
```

Data Output | Messages | Notifications

```
NOTICE:  Product ID: 2, Name: Chang, Price: 19
NOTICE:  Product ID: 3, Name: Aniseed Syrup, Price: 10
NOTICE:  Product ID: 4, Name: Chef Anton's Cajun Seasoning, Price: 22
NOTICE:  Product ID: 5, Name: Chef Anton's Gumbo Mix, Price: 21.35
NOTICE:  Product ID: 6, Name: Grandma's Boysenberry Spread, Price: 25
NOTICE:  Product ID: 7, Name: Uncle Bob's Organic Dried Pears, Price: 30
NOTICE:  Product ID: 8, Name: Northwoods Cranberry Sauce, Price: 40
NOTICE:  Product ID: 9, Name: Mishi Kobe Niku, Price: 97
NOTICE:  Product ID: 10, Name: Ikura, Price: 31
NOTICE:  Product ID: 11, Name: Queso Cabrales, Price: 21
NOTICE:  Product ID: 12, Name: Queso Manchego La Pastora, Price: 38
NOTICE:  Product ID: 13, Name: Konbu, Price: 6
NOTICE:  Product ID: 14, Name: Tofu, Price: 23.25
NOTICE:  Product ID: 15, Name: Genen Shouyu, Price: 13
```