

DAY 10 ASSIGNMENT

1. Write a function to Calculate the total stock value for a given category:

(Stock value=ROUND(SUM(unit_price * units_in_stock)::DECIMAL, 2) Return data type is DECIMAL(10,2)

```
CREATE OR REPLACE FUNCTION category_stock_values(p_category_name TEXT)
RETURNS NUMERIC
LANGUAGE plpgsql
```

```
AS $$
```

```
DECLARE
```

```
    total_stock_value NUMERIC;
```

```
BEGIN
```

```
    SELECT ROUND(SUM(p.unit_price * p.units_in_stock)::DECIMAL, 2)
```

```
    INTO total_stock_value
```

```
    FROM products p
```

```
    JOIN categories c ON p.category_id = c.category_id
```

```
    WHERE c.category_name = p_category_name;
```

```
    RETURN total_stock_value;
```

```
END;
```

```
$$;
```

--Check the function

```
SELECT category_stock_values('Beverages');
```

The screenshot shows a SQL IDE with a query editor and a data output window. The query editor contains the following SQL code:

```
29 CREATE OR REPLACE FUNCTION category_stock_values(p_category_name TEXT)
30 RETURNS NUMERIC
31 LANGUAGE plpgsql
32 AS $$
33 DECLARE
34     total_stock_value NUMERIC;
35 BEGIN
36     SELECT ROUND(SUM(p.unit_price * p.units_in_stock)::DECIMAL, 2)
37     INTO total_stock_value
38     FROM products p
39     JOIN categories c ON p.category_id = c.category_id
40     WHERE c.category_name = p_category_name;
41
42     RETURN total_stock_value;
43 END;
44 $$;
45
46
47 SELECT category_stock_values('Beverages');
```

The data output window shows the result of the query:

category_stock_values
numeric
1 13805.49

Total rows: 1 Query complete 00:00:00.073

SELECT category_stock_values('Condiments');

Data Output		Messages	Notifications
	category_stock_values numeric		
1	11990.73		
Total rows: 1		Query complete 00:00:00.069	

2. Try writing a cursor query which I executed in the training.

```
CREATE OR REPLACE PROCEDURE update_prices_with_cursor()  
LANGUAGE plpgsql  
AS $$  
DECLARE  
    product_cursor CURSOR FOR  
        SELECT product_id, product_name, unit_price, units_in_stock  
        FROM products  
        WHERE discontinued = 0;  
  
    product_record RECORD;  
    v_new_price DECIMAL(10,2);  
BEGIN  
    OPEN product_cursor;  
  
    LOOP  
        FETCH product_cursor INTO product_record;  
  
        EXIT WHEN NOT FOUND;  
  
        IF product_record.units_in_stock < 10 THEN  
            v_new_price := product_record.unit_price * 1.1;  
        ELSE  
            v_new_price := product_record.unit_price * 0.95;  
        END IF;  
  
        UPDATE products  
        SET unit_price = ROUND(v_new_price,2)  
        WHERE product_id = product_record.product_id;  
  
        -- log the changes  
        RAISE NOTICE 'Updated % price from % to %',  
            product_record.product_name,  
            product_record.unit_price,
```

```

        v_new_price;
    END LOOP;

    CLOSE product_cursor;

END;
$$;

CALL update_prices_with_cursor();

```

Query	Query History
38	7.2. Try writing a cursor query which I executed in the training.
39	CREATE OR REPLACE PROCEDURE update_prices_with_cursor()
40	LANGUAGE plpgsql
41	AS \$\$
42	DECLARE
43	product_cursor CURSOR FOR
44	SELECT product_id, product_name, unit_price, units_in_stock
45	FROM products
46	WHERE discontinued = 0;
47	
48	product_record RECORD;
49	v_new_price DECIMAL(10,2);
50	BEGIN
51	OPEN product_cursor;
52	
53	LOOP
54	FETCH product_cursor INTO product_record;
55	
56	EXIT WHEN NOT FOUND;
57	
58	IF product_record.units_in_stock < 10 THEN
59	v_new_price := product_record.unit_price * 1.1;
60	ELSE
61	v_new_price := product_record.unit_price * 0.95;
62	END IF;
63	
64	UPDATE products
65	SET unit_price = ROUND(v_new_price,2)
66	WHERE product_id = product_record.product_id;
67	
68	-- log the changes
69	RAISE NOTICE 'Updated % price from % to %',
70	product_record.product_name,
71	product_record.unit_price,
72	v_new_price;
73	END LOOP;
74	
75	CLOSE product_cursor;
76	END;
77	\$\$;
78	
79	CALL update_prices_with_cursor();

Data Output	Messages	Notifications
NOTICE:	Updated Inlagd Sill price from 19 to 18.05	
NOTICE:	Updated Gravadv lax price from 26 to 24.70	
NOTICE:	Updated Boston Crab Meat price from 18.4 to 17.48	
NOTICE:	Updated Jack's New England Clam Chowder price from 9.65 to 9.17	
NOTICE:	Updated Gula Malacca price from 19.45 to 18.48	
NOTICE:	Updated Spegesild price from 12 to 11.40	
NOTICE:	Updated Zaanse koeken price from 9.5 to 9.03	
NOTICE:	Updated Chocolate price from 12.75 to 12.11	
NOTICE:	Updated Maxilaku price from 20 to 19.00	
NOTICE:	Updated Valkoinen suklaa price from 16.25 to 15.44	
NOTICE:	Updated Manjimup Dried Apples price from 53 to 50.35	
Total rows:	Query complete 00:00:00.053	