Coffeeshop Management System

DMDD SPRING 2023

FINAL PROJECT PRESENTATION – 04-13-2023

GROUP 6

About the Team

01

MADHURA KURHADKAR

ERD ANALYSIS, PACKAGES, TRIGGERS, VIEWS & CLEAN-UP SCRIPTS

02
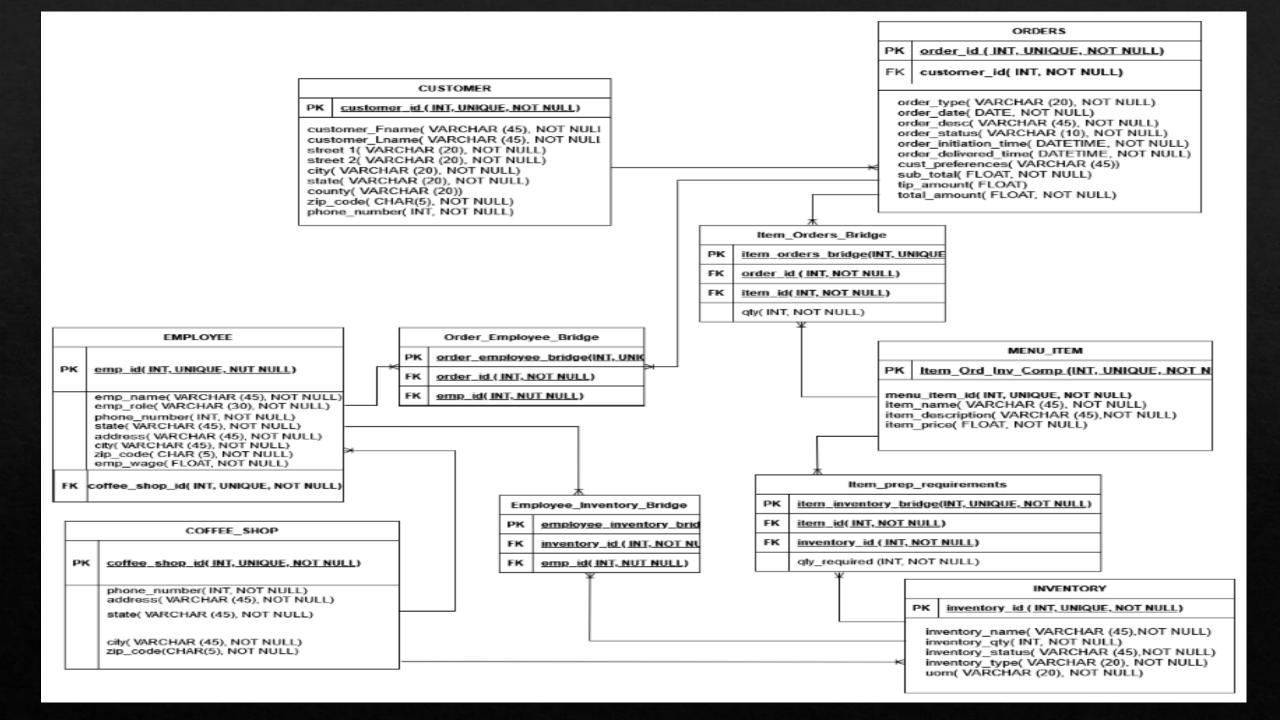
MANISH KANDUKURI

ERD ANALYSIS, DATA CREATION, VIEWS, FUNCTIONS & DOCUMENTATION

03

ABDULLAH ALNASSIR

ERD ANALYSIS, TEST-CASES, VIEWS & DOCUMENTATION

ER DIAGRAM

ORDERS

PK	order_id (INT, UNIQUE, NOT NULL)
FK	customer_id(INT, NOT NULL)

order_type(VARCHAR (20), NOT NULL)
order_date(DATE, NOT NULL)
order_desc(VARCHAR (45), NOT NULL)
order_status(VARCHAR (10), NOT NULL)
order_initiation_time(DATETIME, NOT NULL)
order_delivered_time(DATETIME, NOT NULL)
cust_preferences(VARCHAR (45))
sub_total(FLOAT, NOT NULL)
tip_amount(FLOAT)
total_amount(FLOAT, NOT NULL)

CUSTOMER

PK	customer_id (INT, UNIQUE, NOT NULL)

customer_Fname(VARCHAR (45), NOT NULL)
customer_Lname(VARCHAR (45), NOT NULL)
street 1(VARCHAR (20), NOT NULL)
street 2(VARCHAR (20), NOT NULL)
city(VARCHAR (20), NOT NULL)
state(VARCHAR (20), NOT NULL)
county(VARCHAR (20))
zip_code(CHAR(5), NOT NULL)
phone_number(INT, NOT NULL)

Item_Orders_Bridge

PK	item_orders_bridge(INT, UNIQUE
FK	order_id (INT, NOT NULL)
FK	item_id(INT, NOT NULL)
	qty(INT, NOT NULL)

EMPLOYEE

PK	emp_id(INT, UNIQUE, NUT NULL)

emp_name(VARCHAR (45), NOT NULL)
emp_role(VARCHAR (30), NOT NULL)
phone_number(INT, NOT NULL)
state(VARCHAR (45), NOT NULL)
address(VARCHAR (45), NOT NULL)
city(VARCHAR (45), NOT NULL)
zip_code(CHAR (5), NOT NULL)
emp_wage(FLOAT, NOT NULL)

FK	coffee_shop_id(INT, UNIQUE, NOT NULL)

Order_Employee_Bridge

PK	order_employee_bridge(INT, UNIC
FK	order_id (INT, NOT NULL)
FK	emp_id(INT, NUT NULL)

MENU_ITEM

PK	Item_Ord_Inv_Comp (INT, UNIQUE, NOT N

menu_item_id(INT, UNIQUE, NOT NULL)
item_name(VARCHAR (45), NOT NULL)
item_description(VARCHAR (45),NOT NULL)
item_price(FLOAT, NOT NULL)

COFFEE_SHOP

PK	coffee_shop_id(INT, UNIQUE, NOT NULL)

phone_number(INT, NOT NULL)
address(VARCHAR (45), NOT NULL)
state(VARCHAR (45), NOT NULL)

city(VARCHAR (45), NOT NULL)
zip_code(CHAR(5), NOT NULL)

Employee_Inventory_Bridge

PK	employee_inventory_brid
FK	inventory_id (INT, NOT NU
FK	emp_id(INT, NUT NULL)

Item_prep_requirements

PK	item_inventory_bridge(INT, UNIQUE, NOT NULL)
FK	item_id(INT, NOT NULL)
FK	inventory_id (INT, NOT NULL)
	qty_required (INT, NOT NULL)

INVENTORY

PK	inventory_id (INT, UNIQUE, NOT NULL)

inventory_name(VARCHAR (45),NOT NULL)
inventory_qty(INT, NOT NULL)
inventory_status(VARCHAR (45),NOT NULL)
inventory_type(VARCHAR (20), NOT NULL)
uom(VARCHAR (20), NOT NULL)

Deliverables

◈ Tables

◈ Views

◈ Triggers

◈ Stored procedures, functions, packages

◈ Execution of stored procedures, functions, and packages

◈ Reports

Tables

◇ Menu_Item

ITEM...	ITEM_NAME	ITEM_DESC	ITEM_PRICE	COF...
1	Nitro Cold Brew	Exotic Cold Brew along with Fresh Almond Milk	8.95	1
2	Pumpkin Spice Latte	Latte in Fresh Whole Milk with 3 Pumpkin Spice Pumps	8.95	1
3	Caffe Mocha	Simply the Best Mocha ever	9.45	1
4	Caffe Americano	If American accent has a taste...	4.5	1
5	Java Chip Frappuccino	Freshly made Java Chip Frappuccino	8.95	1
6	Signature Hot Chocolate	Hot Chocolate in Winter keeps you warm	7.95	1

◇ Inventory

INVEN...	INVENTORY_NA...	INVEN...	INVENTORY_STATUS	INVENTORY_TYPE	UNIT_...	CO...
10	Whole Milk	28.1	Available	Perishable	Gallon	1
11	Almond Milk	29.5	Available	Perishable	Gallon	1
12	Hazelnut Syrup	20	Available	Perishable	Oz	1
13	Vanilla Syrup	-4.1	Unavailable	Perishable	Oz	1
14	Cups	200	Available	Non-Perishable	Pieces	1
15	Stirrer	300	Available	Non-Perishable	Pieces	1
16	Pumpkin Spi...	-4	Unavailable	Perishable	Oz	1
17	Espresso Co...	17	Available	Perishable	Gallon	1
18	Chocolate	20	Available	Perishable	Gallon	1
19	Sugar	28.4	Available	Perishable	Gallon	1
20	MOCHA Sauce	148	Available	Perishable	Oz	1
21	JAVA Chips	965	Available	Perishable	Pieces	1
22	Americano B...	2952	Available	Perishable	Oz	1
23	Distilled W...	83.8	Available	Perishable	Gallon	1
24	Chocolate S...	180	Available	Perishable	Oz	1
25	Raspberry S...	52	Available	Perishable	Oz	1

◇ Orders

ORD...	CUST...	ORDER_TYPE	ORDER_INI...	ORDER_STATUS	ORDER_CO...	ORDER_DEL...	TOTAL...	CO...
100	80006	ONLINE	23-12-22	Ready for Pickup	12-12-22	12-12-22	8.95	1
101	80002	IN-STORE	08-01-23	Delivered	08-01-23	08-01-23	8.95	1
102	80004	IN-STORE	23-01-23	Ready for Pickup	23-01-23	23-01-23	9.95	1
103	80009	IN-STORE	15-02-23	Cancelled	15-02-23	15-02-23	9.45	1
104	80004	ONLINE	21-02-23	In Progress	21-02-23	21-02-23	26.85	1
105	80004	IN-STORE	05-03-23	Ready for Pickup	05-03-23	05-03-23	8.95	1
106	80007	ONLINE	13-03-23	Delivered	13-03-23	13-03-23	28.35	1
107	80005	IN-STORE	15-03-23	Ready for Pickup	15-03-23	15-03-23	17.9	1
108	80003	IN-STORE	18-03-23	In Progress	18-03-23	18-03-23	17.9	1
109	80003	ONLINE	05-04-23	Ready for Pickup	05-04-23	05-04-23	9	1
110	80003	IN-STORE	10-04-23	Ready for Pickup	10-04-23	10-04-23	8.95	1

Tables

◈ Customer

CUSTO...	CUST...	CUSTOMER_...	CITY	STATE_NAME	PHONE_NUMBER	CUSTOMER...
80000	Kelly	Key	BOSTON	MASSACHUSETTS	8678978743	02-09-22...
80001	Clark	Schroeder	CAMBRIDGE	MASSACHUSETTS	8678543563	01-10-22...
80002	Elvis	Cardenas	BOSTON	MASSACHUSETTS	8678976098	11-11-22...
80003	Rafael	Estes	BOSTON	MASSACHUSETTS	8678434563	12-11-22...
80004	Colin	Lynn	LOWELL	MASSACHUSETTS	8678900063	29-11-22...
80005	JACK	SPARROW	BOSTON	MASSACHUSETTS	8678976563	12-12-22...
80006	Ram	Singh	BOSTON	MASSACHUSETTS	8678978700	23-12-22...
80007	Ben	Deigo	CAMBRIDGE	MASSACHUSETTS	8678549993	01-01-23...
80008	Big	San	BOSTON	MASSACHUSETTS	8578976098	12-01-23...
80009	Paris	Wall	BOSTON	MASSACHUSETTS	8978434563	15-02-23...
80010	Indy	Lynn	LOWELL	MASSACHUSETTS	8678980063	12-03-22...

◈ Item_Prep_Req

ITEM_INVE...	ITEM...	INVEN...	QTY_R...	INVENTORY_AV...
50001	2	10	0.1	Available
50002	2	16	8	Unavailable
50000	2	17	0.2	Available
50004	1	11	0.1	Available
50006	1	17	0.2	Available
50009	1	13	8	Unavailable
50011	3	20	2	Available
50012	3	19	0.2	Available
50010	3	24	2	Available
50014	4	23	0.3	Available
50016	4	22	2	Available
50019	5	21	5	Available

◈ Item_Order_Bridge

ITEM_ORDER_BRIDGE_ID	ITEM_ID	ORDER_ID	QTY_ORDERED
1110	1	100	1
1111	2	100	3
1112	1	101	1
1113	6	101	2
1114	5	102	1
1115	2	102	2

Tables

◈ Order_Employee

ORDER_EM...	ORDE...	EMPLOY...
2001	103	1003
1001	104	1003
1002	108	1004
2002	100	1002
1011	102	1002
2010	105	1002
2101	107	1002
1101	110	1002
1102	106	1002
2102	101	1002

◈ Employee

EMPL...	EMPLOYEE_NAME	EMPLOYEE_ROLE	PHONE_NUMBER	STREET	CITY	STATE_NAME	ZIP_CODE	EMP_...	COFF...
1000	Sue Tindale	Store_Manager	8578765439	3 Mass Ave	Boston	Massachus...	2115	34	1
1001	Kelsey Cameron	Inventory_Manager	8579876543	43 Alphonsus Street	Boston	Massachus...	2121	30	1
1002	Caldwell Veda	Order_Delivery_Emp	6172563748	369 Hunter Street	Boston	Massachus...	2120	20	1
1003	Bucky Burnes	Barista	6177777345	75 Omingo Street	Boston	Massachus...	2113	26	1
1004	Rupert Nickson	Barista	8569855210	16 Wilmington Street	Boston	Massachus...	2118	24	1
1005	Montery Keel	Cashier	857987442	6 Brakes Street	Cambridge	Massachus...	2111	20	1

◈ Item_Order_Bridge

ITEM_ORD...	ITEM_ID	ORDER_ID	QTY_O...
1110	1	100	1
1111	2	100	3
1112	1	101	1
1113	6	101	2
1114	5	102	1
1115	2	102	2
1116	5	103	1
1117	3	103	3
1118	1	104	1
1119	2	104	3
1120	1	105	1

◈ coffee_shop

C...	PHONE_NU...	STREET	CITY	STATE_NAME	ZIP...
1	6178282828	120 SouthBay	Boston	Massachusetts	2107

Views

```
1122  select * from view_menu_item_to_customer;
1123  |
1124
```

Query Result 1

SQL | All Rows Fetched: 3 in 0.118 seconds

ITEM_NAME	ITEM_PRICE
1 Caffe Mocha	9.45
2 Caffe Americano	4.5
3 Signature Hot Chocolate	7.95

```
select * from view_menu_item_to_customer;
|
```

Query Result 1

SQL | All Rows Fetched: 3 in 0.118

ITEM_NAME	ITEM_PRICE
1 Caffe Mocha	9.45
2 Caffe Americano	4.5
3 Signature Hot Chocolate	7.95

```
select * from CURRENT_ORDER_AND_BARISTA_VIEW;
```

Query Result

SQL | All Rows Fetched: 2 in 0.093 seconds

ORDER_ID	EMPLOYEE_ID	ORDER_STATUS
1	103	1003 In Progress
2	104	1003 In Progress

```
select * from order_type_view;
```

Query Result

SQL | All Rows Fetched: 11 in 0.095 seconds

	ONLINE_ORDER_COUNT	INSTORE_ORDER_COUNT	ORDER_INITIATION_DATE_TIME	ORDER_COMPLETION_DATE_TIME	ORDER_DELIVERY_DATE_T
1	0	1	15-FEB-2023 12:15:15	15-FEB-2023 12:35:15	15-FEB-2023 13:15:15
2	1	0	21-FEB-2023 16:23:49	21-FEB-2023 16:43:49	21-FEB-2023 15:23:49
3	1	0	05-APR-2023 14:34:35	05-APR-2023 14:54:35	05-APR-2023 15:34:35
4	0	1	08-JAN-2023 14:56:03	08-JAN-2023 15:26:03	08-JAN-2023 15:56:03
5	0	1	05-MAR-2023 09:45:34	05-MAR-2023 10:15:34	05-MAR-2023 10:45:34
6	1	0	23-DEC-2022 20:25:56	12-DEC-2022 20:45:56	12-DEC-2022 21:25:56
7	0	1	23-JAN-2023 13:24:24	23-JAN-2023 13:44:24	23-JAN-2023 14:24:24
8	0	1	15-MAR-2023 12:44:45	15-MAR-2023 13:04:45	15-MAR-2023 13:44:45
9	0	1	18-MAR-2023 11:20:00	18-MAR-2023 11:40:00	18-MAR-2023 12:20:00
10	1	0	13-MAR-2023 16:56:45	13-MAR-2023 17:26:45	13-MAR-2023 17:56:45
11	0	1	10-APR-2023 19:34:35	10-APR-2023 19:54:35	10-APR-2023 18:34:35

Views

```
select * from ITEM_WISE_SALE_VIEW;
```

Query Result ×

SQL | All Rows Fetched: 6 in 0.104 seconds

	ITEM_ID	ITEM_NAME	TOTAL_QTY_ORDERED	TOTAL_SALES
1	1	Nitro Cold Brew	5	44.75
2	4	Caffe Americano	4	18
3	2	Pumpkin Spice Latte	10	89.5
4	3	Caffe Mocha	8	75.6
5	5	Java Chip Frappuccino	7	62.65
6	6	Signature Hot Chocolate	2	15.9

```
select * from TOP5_CUSTOMERS;
```

Query Result ×

SQL | All Rows Fetched: 5

	CUSTOMER_ID	TOTAL_SALES
1	80003	101.05
2	80004	80.55
3	80009	37.3
4	80006	35.8
5	80002	24.85

```
select * from TOP5_CUSTOMERS_DENSE;
```

Query Result ×

SQL | All Rows Fetched: 5 in 0.103 seconds

	CUSTOMER_FNAME	CUSTOMER_LNAME	CUSTOMER_ID	TOTAL_SALES	SALES_RANK
1	Rafael	Estes	80003	101.05	1
2	Colin	Lynn	80004	80.55	2
3	Paris	Wall	80009	37.3	3
4	Ram	Singh	80006	35.8	4
5	Elvis	Cardenas	80002	24.85	5

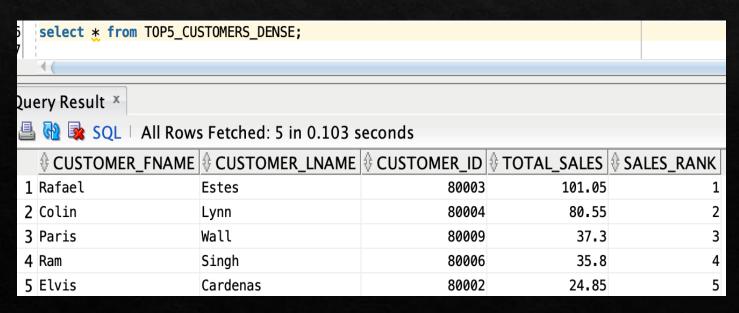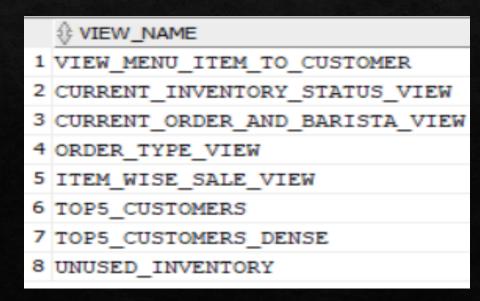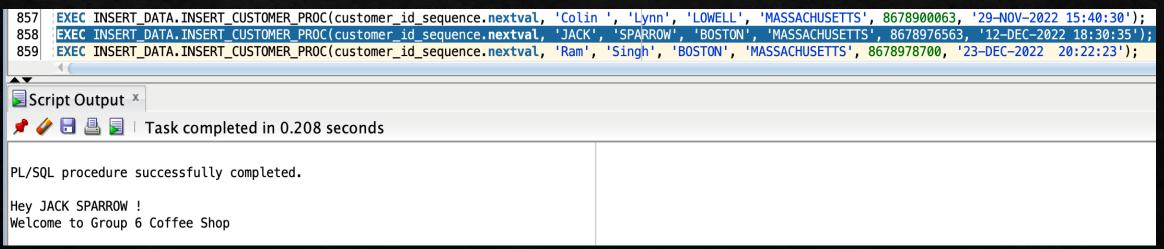|	VIEW_NAME
1	VIEW_MENU_ITEM_TO_CUSTOMER
2	CURRENT_INVENTORY_STATUS_VIEW
3	CURRENT_ORDER_AND_BARISTA_VIEW
4	ORDER_TYPE_VIEW
5	ITEM_WISE_SALE_VIEW
6	TOP5_CUSTOMERS
7	TOP5_CUSTOMERS_DENSE
8	UNUSED_INVENTORY

Triggers

```
1112  update orders set order_status = 'Cancelled'
1113  where order_id = '103'
1114  and order_status not in ('Delivered', 'Ready for Pickup', 'Cancelled');
1115
```

Script Output

Task completed in 0.208 seconds

```
Trigger begins...
statement 1 : order_id = 103, order_staus = In Progress
Statement 2 : item_id = 5 , QTY_ORDERED = 1
Statement 3 : QTY_REQUIRED = 5, INVENTORY_ID = 21
Statement 3 : QTY_REQUIRED = .1, INVENTORY_ID = 10
Statement 3 : QTY_REQUIRED = .05, INVENTORY_ID = 13
Statement 3 : QTY_REQUIRED = 2, INVENTORY_ID = 20
Data updated!!
Statement 2 : item_id = 3 , QTY_ORDERED = 3
Statement 3 : QTY_REQUIRED = 2, INVENTORY_ID = 20
Statement 3 : QTY_REQUIRED = .2, INVENTORY_ID = 19
Statement 3 : QTY_REQUIRED = 2, INVENTORY_ID = 24
Data updated!!
```

```
949  EXEC INSERT_DATA.INSERT_ITEM_ORDER_BRIDGE(1128, 3, 110,   3);
```

Script Output

Task completed in 0.208 seconds

```
PL/SQL procedure successfully completed.

Trigger begins...
110
QTY_ORDERED 3, item_id = 3
QTY_REQUIRED = 2 ,   INVENTORY_ID = 20
total qty : 6, Inventory_QTY : 154
QTY_REQUIRED = .2 ,   INVENTORY_ID = 19
total qty : .6, Inventory_QTY : 29
QTY_REQUIRED = 2 ,   INVENTORY_ID = 24
total qty : 6, Inventory_QTY : 186
Trigger ends...
```

```
857  EXEC INSERT_DATA.INSERT_CUSTOMER_PROC(customer_id_sequence.nextval, 'Colin ', 'Lynn', 'LOWELL', 'MASSACHUSETTS', 8678900063, '29-NOV-2022 15:40:30');
858  EXEC INSERT_DATA.INSERT_CUSTOMER_PROC(customer_id_sequence.nextval, 'JACK', 'SPARROW', 'BOSTON', 'MASSACHUSETTS', 8678976563, '12-DEC-2022 18:30:35');
859  EXEC INSERT_DATA.INSERT_CUSTOMER_PROC(customer_id_sequence.nextval, 'Ram', 'Singh', 'BOSTON', 'MASSACHUSETTS', 8678978700, '23-DEC-2022  20:22:23');
```

Script Output

Task completed in 0.208 seconds

```
PL/SQL procedure successfully completed.

Hey JACK SPARROW !
Welcome to Group 6 Coffee Shop
```

Stored procedures, functions, packages

OBJECT_NAME	PROCEDURE_NAME	OBJECT_TYPE
INSERT_DATA	INSERT_COFFEE_SHOP	PACKAGE
INSERT_DATA	INSERT_CUSTOMER_PROC	PACKAGE
INSERT_DATA	INSERT_EMPLOYEE	PACKAGE
INSERT_DATA	INSERT_EMPLOYEE_INVENTORY	PACKAGE
INSERT_DATA	INSERT_INVENTORY	PACKAGE
INSERT_DATA	INSERT_ITEM_ORDER_BRIDGE	PACKAGE
INSERT_DATA	INSERT_ITEM_PREP_REQ	PACKAGE
INSERT_DATA	INSERT_MENU_ITEM	PACKAGE
INSERT_DATA	INSERT_ORDERS	PACKAGE
INSERT_DATA	INSERT_ORDER_EMPLOYEE	PACKAGE

Functions

OBJECT_NAME	OBJECT_TYPE
APPLY_DISCOUNT15	FUNCTION
UPDATE_MENU_ITEM	FUNCTION
CHECK_INVENTORY_AVAILABILITY	FUNCTION

◈ Apply_Discount15 is a function that applies 15% discount on any order.

```
1098  DECLARE
1099     v_discounted_amount NUMBER;
1100  BEGIN
1101     v_discounted_amount := apply_discount15(108);
1102     DBMS_OUTPUT.PUT_LINE('Discounted amount: ' || v_discounted_amount);
1103  END;
1104  /
1105
1106  SELECT * FROM orders WHERE order_id = 108 ;
```

Script Output ×

Task completed in 0.208 seconds

```
Function APPLY_DISCOUNT15 compiled

Order id 108
Trigger begins...
statement 1 : order_id = 108, order_staus = In Progress
Statement 2 : item_id = 5 , QTY_ORDERED = 2
Statement 3 : QTY_REQUIRED = 5, INVENTORY_ID = 21
Statement 3 : QTY_REQUIRED = .1, INVENTORY_ID = 10
Statement 3 : QTY_REQUIRED = .05, INVENTORY_ID = 13
Statement 3 : QTY_REQUIRED = 2, INVENTORY_ID = 20
Data updated!!
Discounted amount: 15.215
```

Flow