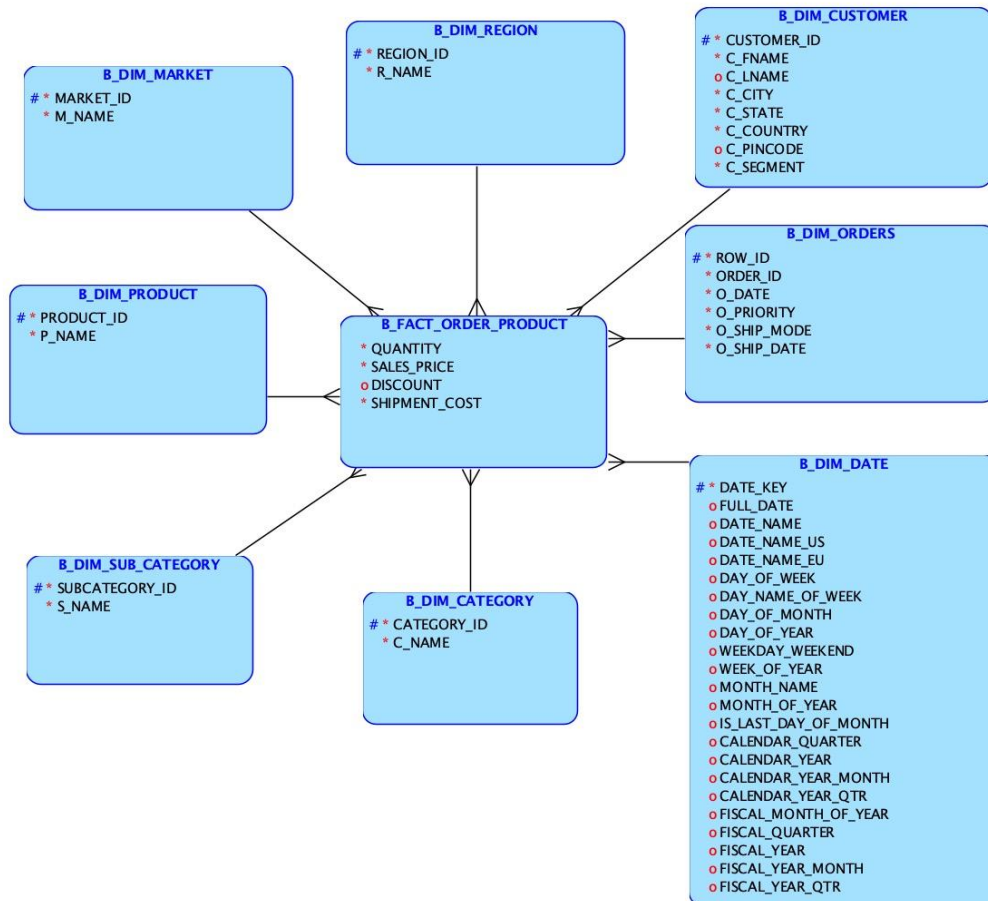


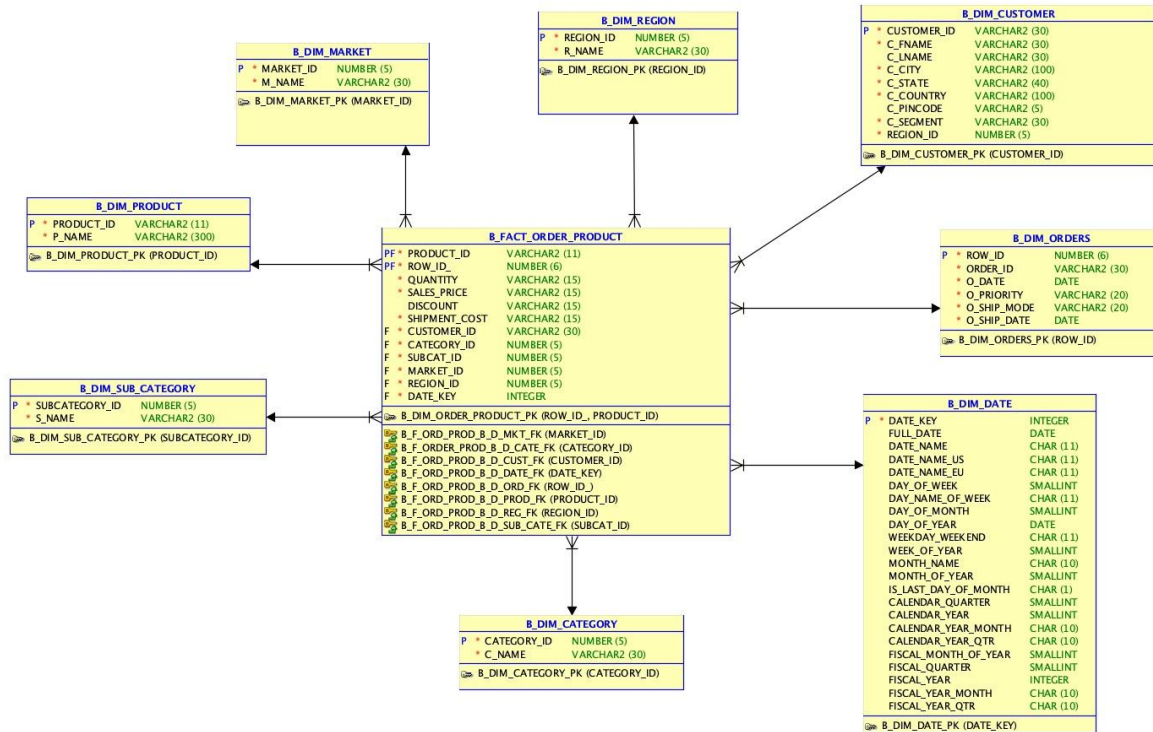
xq441 jl14286 jt4585 hl4609

## SU23 MASY1-GC3510-Data Mining and Data Warehousing

### 2023/08/08 Group Project #2

#### Screenshot of Logical and Relational model





## DDL code(MySQL)

```
-- Generated by Oracle SQL Developer Data Modeler 23.1.0.087.0806
-- at:    2023-08-07 22:50:29 EDT
-- site:  Oracle Database 11g
-- type:  Oracle Database 11g
```

```
-- predefined type, no DDL - MDSYS.SDO_GEOMETRY
```

```
-- predefined type, no DDL - XMLTYPE
```

```
CREATE TABLE b_dim_category (
  category_id NUMBER(5) NOT NULL,
  c_name      VARCHAR2(30) NOT NULL
);
```

```
COMMENT ON COLUMN b_dim_category.category_id IS
```

'PRIMARY KEY OF CATEGORY TABLE';

COMMENT ON COLUMN b\_dim\_category.c\_name IS  
'CATEGORY NAME ';

ALTER TABLE b\_dim\_category ADD CONSTRAINT b\_dim\_category\_pk PRIMARY KEY (  
category\_id );

CREATE TABLE b\_dim\_customer (  
customer\_id VARCHAR2(30) NOT NULL,  
c\_fname VARCHAR2(30) NOT NULL,  
c\_lname VARCHAR2(30),  
c\_city VARCHAR2(100) NOT NULL,  
c\_state VARCHAR2(40) NOT NULL,  
c\_country VARCHAR2(100) NOT NULL,  
c\_pincode VARCHAR2(5),  
c\_segment VARCHAR2(30) NOT NULL,  
region\_id NUMBER(5) NOT NULL  
);

COMMENT ON COLUMN b\_dim\_customer.customer\_id IS  
'PRIMARY KEY OF CUSTOMER TABLE';

COMMENT ON COLUMN b\_dim\_customer.c\_fname IS  
'CUSTOMER FIRST NAME';

COMMENT ON COLUMN b\_dim\_customer.c\_lname IS  
'CUSTOMER LAST NAME ';

COMMENT ON COLUMN b\_dim\_customer.c\_city IS  
'CUSTOMER CITY ';

COMMENT ON COLUMN b\_dim\_customer.c\_state IS  
'CUSTOMER STATE ';

COMMENT ON COLUMN b\_dim\_customer.c\_country IS  
'CUSTOMER COUNTRY ';

COMMENT ON COLUMN b\_dim\_customer.c\_pincode IS  
'CUSTOMER PINCODE';

COMMENT ON COLUMN b\_dim\_customer.c\_segment IS  
'SEGMENT CUSTOMER BELONGS TO';

```
ALTER TABLE b_dim_customer ADD CONSTRAINT b_dim_customer_pk PRIMARY KEY (
customer_id );
```

```
CREATE TABLE b_dim_date (
    date_key          INTEGER NOT NULL,
    full_date         DATE,
    date_name         CHAR(11),
    date_name_us      CHAR(11),
    date_name_eu      CHAR(11),
    day_of_week       SMALLINT,
    day_name_of_week  CHAR(11),
    day_of_month      SMALLINT,
    day_of_year       DATE,
    weekday_weekend   CHAR(11),
    week_of_year      SMALLINT,
    month_name        CHAR(10),
    month_of_year     SMALLINT,
    is_last_day_of_month CHAR(1),
    calendar_quarter  SMALLINT,
    calendar_year     SMALLINT,
    calendar_year_month CHAR(10),
    calendar_year_qtr CHAR(10),
    fiscal_month_of_year SMALLINT,
    fiscal_quarter    SMALLINT,
    fiscal_year       INTEGER,
    fiscal_year_month CHAR(10),
    fiscal_year_qtr   CHAR(10)
);
```

```
COMMENT ON COLUMN b_dim_date.date_key IS
    'PRIMARY KEY OF THE DATE TABLE
';
```

```
COMMENT ON COLUMN b_dim_date.full_date IS
    'FULL DATE';
```

```
COMMENT ON COLUMN b_dim_date.date_name IS
    'NAME OF DATE';
```

```
COMMENT ON COLUMN b_dim_date.date_name_us IS
    'NAME OF DATE IN US';
```

```
COMMENT ON COLUMN b_dim_date.date_name_eu IS
    'NAME OF DATE IN EUROPE';
```

COMMENT ON COLUMN b\_dim\_date.day\_of\_week IS  
'DAY OF WEEK';

COMMENT ON COLUMN b\_dim\_date.day\_name\_of\_week IS  
'DAY NAME OF WEEK';

COMMENT ON COLUMN b\_dim\_date.day\_of\_month IS  
'DAY OF MONTH';

COMMENT ON COLUMN b\_dim\_date.day\_of\_year IS  
'DAY OF YEAR/DATE';

COMMENT ON COLUMN b\_dim\_date.weekday\_weekend IS  
'WEEKDAY OR WEEKEND';

COMMENT ON COLUMN b\_dim\_date.week\_of\_year IS  
'WEEK OF YEAR';

COMMENT ON COLUMN b\_dim\_date.month\_name IS  
'MONTH NAME OF THE YEAR';

COMMENT ON COLUMN b\_dim\_date.month\_of\_year IS  
'MONTH OF YEAR/IN NUMBER';

COMMENT ON COLUMN b\_dim\_date.is\_last\_day\_of\_month IS  
'WHETHER IT IS THE LAST DAY OF THE MONTH';

COMMENT ON COLUMN b\_dim\_date.calendar\_quarter IS  
'QUARTER ON CALENDAR';

COMMENT ON COLUMN b\_dim\_date.calendar\_year IS  
'YEAR ON CALENDAR';

COMMENT ON COLUMN b\_dim\_date.calendar\_year\_month IS  
'YEAR AND MONTH ON CALENDAR';

COMMENT ON COLUMN b\_dim\_date.calendar\_year\_qtr IS  
'YEAR AND QUARTER ON CALENDAR';

COMMENT ON COLUMN b\_dim\_date.fiscal\_month\_of\_year IS  
'FISCAL MONTH OF THE YEAR';

COMMENT ON COLUMN b\_dim\_date.fiscal\_quarter IS

'QUARTER IN FISCAL YEAR';

COMMENT ON COLUMN b\_dim\_date.fiscal\_year IS  
'FISCAL YERA';

COMMENT ON COLUMN b\_dim\_date.fiscal\_year\_month IS  
'FISCAL YEAR AND MONTH';

COMMENT ON COLUMN b\_dim\_date.fiscal\_year\_qtr IS  
'FISCAL YEAR AND QUARTER';

ALTER TABLE b\_dim\_date ADD CONSTRAINT b\_dim\_date\_pk PRIMARY KEY ( date\_key );

CREATE TABLE b\_dim\_market (  
    market\_id NUMBER(5) NOT NULL,  
    m\_name VARCHAR2(30) NOT NULL  
);

COMMENT ON COLUMN b\_dim\_market.market\_id IS  
'PRIMARY KEY OF MARKET TABLE';

COMMENT ON COLUMN b\_dim\_market.m\_name IS  
'MARKET NAME';

ALTER TABLE b\_dim\_market ADD CONSTRAINT b\_dim\_market\_pk PRIMARY KEY (  
market\_id );

CREATE TABLE b\_dim\_orders (  
    row\_id NUMBER(6) NOT NULL,  
    order\_id VARCHAR2(30) NOT NULL,  
    o\_date DATE NOT NULL,  
    o\_priority VARCHAR2(20) NOT NULL,  
    o\_ship\_mode VARCHAR2(20) NOT NULL,  
    o\_ship\_date DATE NOT NULL  
);

COMMENT ON COLUMN b\_dim\_orders.row\_id IS  
'PRIMARY KEY OF ORDER TABLE';

COMMENT ON COLUMN b\_dim\_orders.order\_id IS  
'REPRESENTATIVE NUMBER OF ORDERS';

COMMENT ON COLUMN b\_dim\_orders.o\_date IS  
'ORDER DATE ';

COMMENT ON COLUMN b\_dim\_orders.o\_priority IS  
'PRIORITY LEVEL OF THE ORDER';

COMMENT ON COLUMN b\_dim\_orders.o\_ship\_mode IS  
'ORDER SHIPPING MODE';

COMMENT ON COLUMN b\_dim\_orders.o\_ship\_date IS  
'ORDER SHIPPING DATE';

ALTER TABLE b\_dim\_orders ADD CONSTRAINT b\_dim\_orders\_pk PRIMARY KEY ( row\_id );

CREATE TABLE b\_dim\_product (  
    product\_id VARCHAR2(11) NOT NULL,  
    p\_name    VARCHAR2(300) NOT NULL  
);

COMMENT ON COLUMN b\_dim\_product.product\_id IS  
'PRIMARY KEY OF PRODUCT TABLE';

ALTER TABLE b\_dim\_product ADD CONSTRAINT b\_dim\_product\_pk PRIMARY KEY (  
product\_id );

CREATE TABLE b\_dim\_region (  
    region\_id NUMBER(5) NOT NULL,  
    r\_name    VARCHAR2(30) NOT NULL  
);

COMMENT ON COLUMN b\_dim\_region.region\_id IS  
'PRIMARY KEY OF REGION TABLE';

COMMENT ON COLUMN b\_dim\_region.r\_name IS  
'REGION NAME';

ALTER TABLE b\_dim\_region ADD CONSTRAINT b\_dim\_region\_pk PRIMARY KEY ( region\_id  
);

CREATE TABLE b\_dim\_sub\_category (  
-- PRIMARY KEY OF SUBCATEGORY TABLE  
    subcategory\_id NUMBER(5) NOT NULL,  
-- SUBCATEGORY NAME  
    s\_name        VARCHAR2(30) NOT NULL  
);

```
COMMENT ON COLUMN b_dim_sub_category.subcategory_id IS
'PRIMARY KEY OF SUBCATEGORY TABLE';
```

```
ALTER TABLE b_dim_sub_category ADD CONSTRAINT b_dim_sub_category_pk PRIMARY
KEY ( subcategory_id );
```

```
CREATE TABLE b_fact_order_product (
  product_id  VARCHAR2(11) NOT NULL,
  row_id_     NUMBER(6) NOT NULL,
  quantity    VARCHAR2(15) NOT NULL,
  sales_price VARCHAR2(15) NOT NULL,
  discount    VARCHAR2(15),
  shipment_cost VARCHAR2(15) NOT NULL,
  customer_id VARCHAR2(30) NOT NULL,
  category_id NUMBER(5) NOT NULL,
-- PRIMARY KEY OF SUBCATEGORY TABLE
  subcat_id   NUMBER(5) NOT NULL,
  market_id   NUMBER(5) NOT NULL,
  region_id   NUMBER(5) NOT NULL,
  date_key    INTEGER NOT NULL
);
```

```
COMMENT ON COLUMN b_fact_order_product.quantity IS
'QUANTITY OF PRODUCT PER ORDER';
```

```
COMMENT ON COLUMN b_fact_order_product.sales_price IS
'SALES PRICE';
```

```
COMMENT ON COLUMN b_fact_order_product.discount IS
'DISCOUNT';
```

```
COMMENT ON COLUMN b_fact_order_product.shipment_cost IS
'SHIPMENT COST';
```

```
ALTER TABLE b_fact_order_product ADD CONSTRAINT b_dim_order_product_pk PRIMARY
KEY ( row_id_,
                                           product_id );
```

```
ALTER TABLE b_fact_order_product
  ADD CONSTRAINT b_f_ord_prod_b_d_cust_fk FOREIGN KEY ( customer_id )
  REFERENCES b_dim_customer ( customer_id );
```

```
ALTER TABLE b_fact_order_product
  ADD CONSTRAINT b_f_ord_prod_b_d_date_fk FOREIGN KEY ( date_key )
```



```

REFERENCES b_dim_date ( date_key );

ALTER TABLE b_fact_order_product
ADD CONSTRAINT b_f_ord_prod_b_d_mkt_fk FOREIGN KEY ( market_id )
REFERENCES b_dim_market ( market_id );

ALTER TABLE b_fact_order_product
ADD CONSTRAINT b_f_ord_prod_b_d_ord_fk FOREIGN KEY ( row_id_ )
REFERENCES b_dim_orders ( row_id );

ALTER TABLE b_fact_order_product
ADD CONSTRAINT b_f_ord_prod_b_d_prod_fk FOREIGN KEY ( product_id )
REFERENCES b_dim_product ( product_id );

ALTER TABLE b_fact_order_product
ADD CONSTRAINT b_f_ord_prod_b_d_reg_fk FOREIGN KEY ( region_id )
REFERENCES b_dim_region ( region_id );

ALTER TABLE b_fact_order_product
ADD CONSTRAINT b_f_ord_prod_b_d_sub_cate_fk FOREIGN KEY ( subcat_id )
REFERENCES b_dim_sub_category ( subcategory_id );

ALTER TABLE b_fact_order_product
ADD CONSTRAINT b_f_order_prod_b_d_cate_fk FOREIGN KEY ( category_id )
REFERENCES b_dim_category ( category_id );

```

-- Oracle SQL Developer Data Modeler Summary Report:

```

--
-- CREATE TABLE          9
-- CREATE INDEX           0
-- ALTER TABLE          17
-- CREATE VIEW            0
-- ALTER VIEW             0
-- CREATE PACKAGE         0
-- CREATE PACKAGE BODY    0
-- CREATE PROCEDURE       0
-- CREATE FUNCTION        0
-- CREATE TRIGGER         0
-- ALTER TRIGGER          0
-- CREATE COLLECTION TYPE 0
-- CREATE STRUCTURED TYPE 0
-- CREATE STRUCTURED TYPE BODY 0

```

-- CREATE CLUSTER	0	
-- CREATE CONTEXT	0	
-- CREATE DATABASE	0	
-- CREATE DIMENSION	0	
-- CREATE DIRECTORY	0	
-- CREATE DISK GROUP	0	
-- CREATE ROLE	0	
-- CREATE ROLLBACK SEGMENT		0
-- CREATE SEQUENCE	0	
-- CREATE MATERIALIZED VIEW		0
-- CREATE MATERIALIZED VIEW LOG		0
-- CREATE SYNONYM	0	
-- CREATE TABLESPACE	0	
-- CREATE USER	0	
--		
-- DROP TABLESPACE	0	
-- DROP DATABASE	0	
--		
-- REDACTION POLICY	0	
--		
-- ORDS DROP SCHEMA	0	
-- ORDS ENABLE SCHEMA	0	
-- ORDS ENABLE OBJECT	0	
--		
-- ERRORS	0	
-- WARNINGS	0	