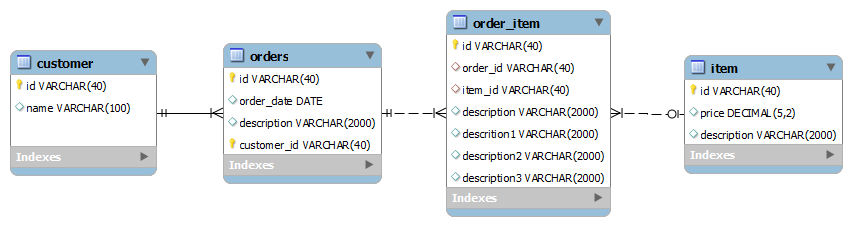
In order to simulate daily database CURD operation, we create the following tables and schedule database job to run CURD operations.

1. dml.sql

It will create 4 database tables as below.



1. curd.sql

This procedure will simulate daily database operation including read, update and delete

1. delete all contents of all tables  
   *delete \* from customer;  
   delete \* from orders;  
   delete \* from item;  
   delete \* from order\_item;  
   commit;*
2. insert data into tables

*FOR customer\_id IN 0..99*

*LOOP*

*INSERT*

*INTO customer VALUES*

*(*

*'customer\_'*

*|| customer\_id,*

*'customer\_name\_'*

*|| customer\_id,*

*dbms\_random.string('A', 20)*

*);*

*COMMIT;*

*END LOOP;*

*FOR order\_id IN 0..20000*

*LOOP*

*INSERT*

*INTO orders VALUES*

*(*

*'order\_'*

*|| order\_id,*

*'customer\_'*

*|| ROUND (dbms\_random.value(0,99)),*

*sysdate,*

*dbms\_random.string('A', 20)*

*);*

*IF remainder(order\_id, 10000) = 0 THEN*

*dbms\_output.put\_line ('commit order at ' || order\_id);*

*COMMIT;*

*END IF;*

*END LOOP;*

*COMMIT;*

*FOR item\_id IN 0..20000*

*LOOP*

*INSERT*

*INTO item VALUES*

*(*

*'item\_'*

*|| item\_id,*

*dbms\_random.string('A', 20),*

*ROUND (dbms\_random.value(1,999))*

*);*

*IF remainder(item\_id, 10000) = 0 THEN*

*dbms\_output.put\_line ('commit item at ' || item\_id);*

*COMMIT;*

*END IF;*

*END LOOP;*

*COMMIT;*

*FOR item\_order\_id IN 0..100000*

*LOOP*

*INSERT*

*INTO order\_item VALUES*

*(*

*'order\_'*

*|| ROUND (dbms\_random.value(0,20000)),*

*'item\_'*

*|| ROUND (dbms\_random.value(0,20000)),*

*ROUND (dbms\_random.value(1,999)),*

*'', '','',''*

*);*

*IF remainder(item\_order\_id, 10000) = 0 THEN*

*dbms\_output.put\_line ('commit order\_item at ' || item\_order\_id);*

*COMMIT;*

*END IF;*

*END LOOP;*

1. update table order\_item with random long varchar2

*update item\_order set description = 'xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx' || dbms\_random.string('A', 20) , description1 = dbms\_random.string('A', 200), description2 = dbms\_random.string('A', 400),description3 = dbms\_random.string('A', 600);*

*commit;*

1. run queries with group by and order by

*SELECT SUM(item.price) totalprice*

*FROM order\_item,*

*orders,*

*item*

*WHERE orders.id = order\_item.order\_id*

*AND order\_item.item\_id = item.id*

*GROUP BY orders.id,*

*order\_item.item\_id;*

*SELECT order\_item.description d1, item.description d2, orders.description d3*

*FROM order\_item,*

*orders,*

*item*

*WHERE orders.id = order\_item.order\_id*

*AND order\_item.item\_id = item.id*

*and order\_item.description like 'xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx%'*

*order by order\_item.description;*