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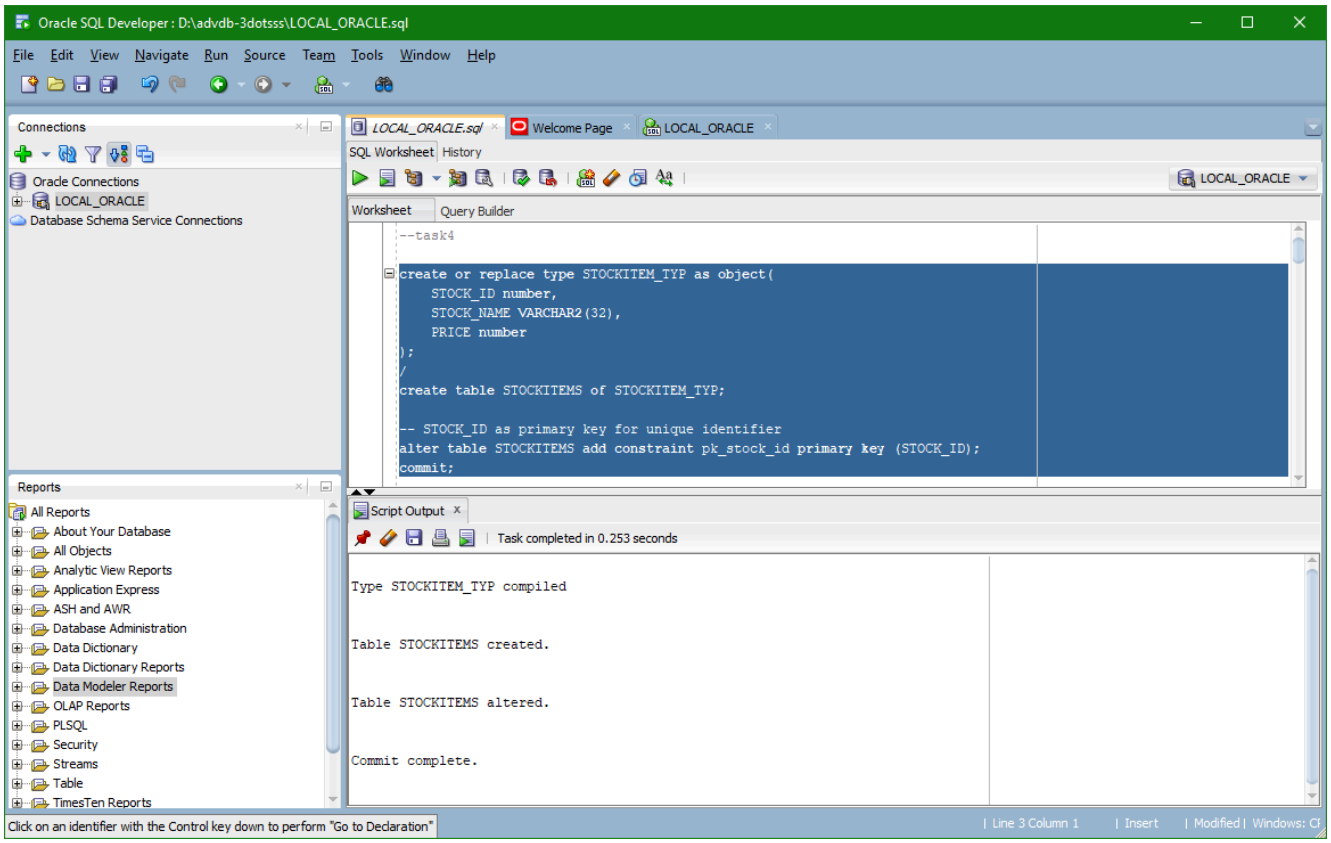
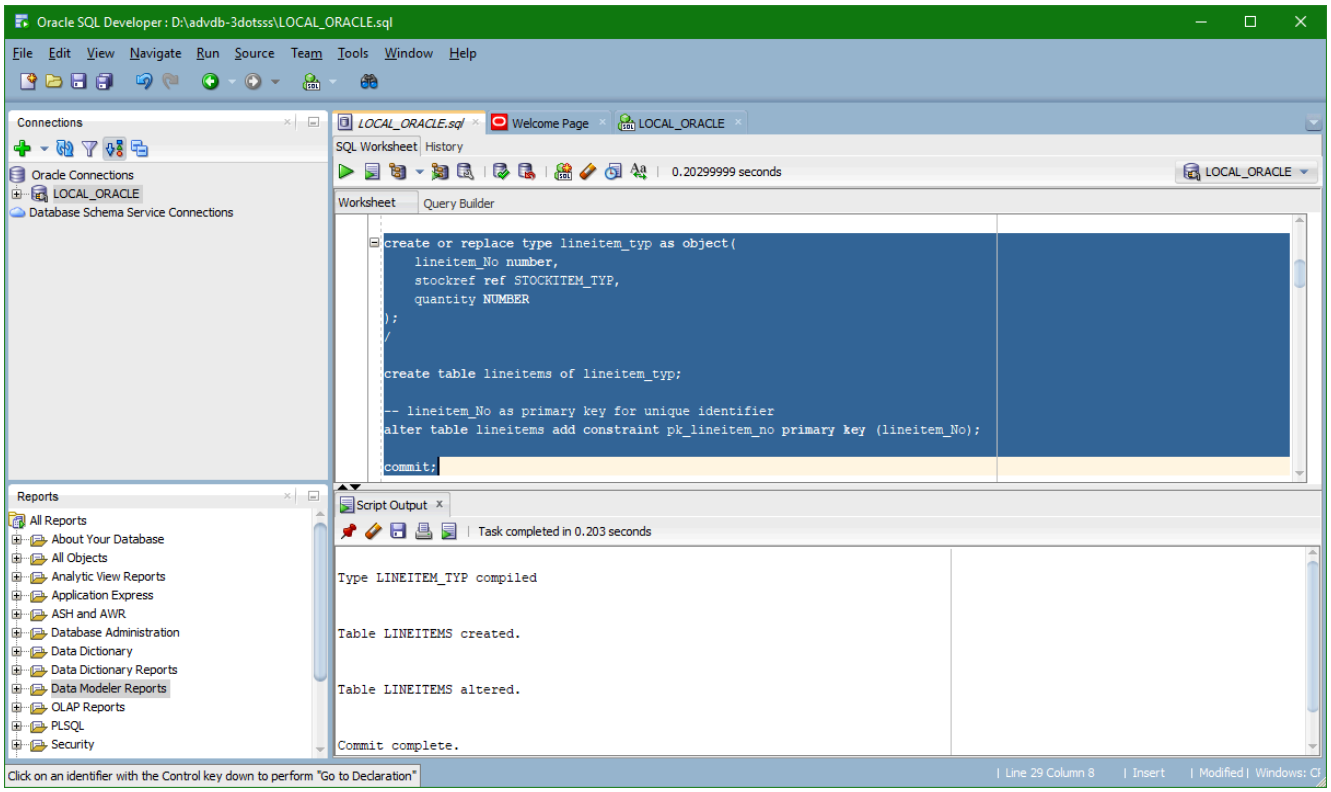
3dotsss advdb Task 04

Modeling and Referencing Stock and Line Items in Oracle ORDBMS

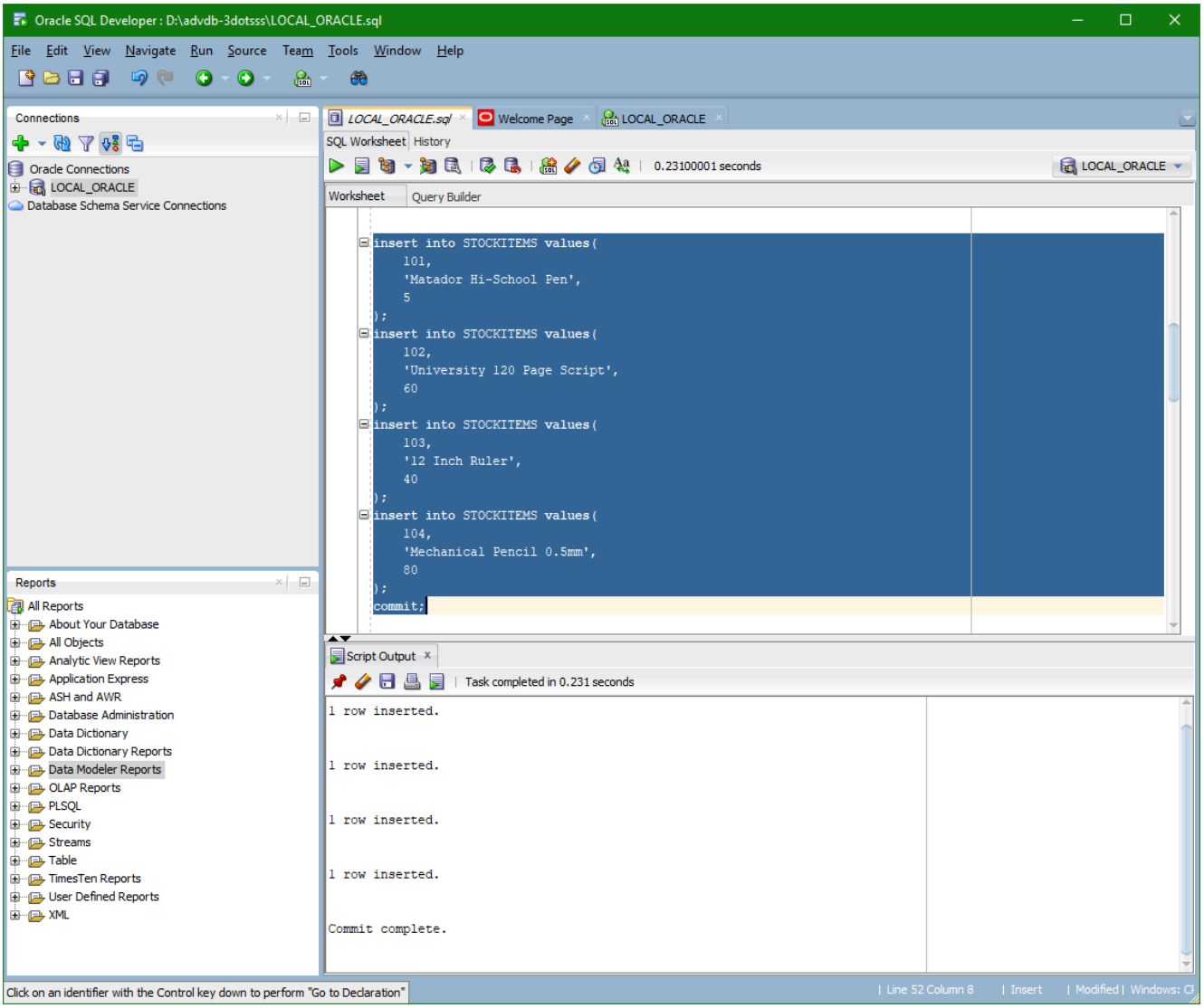
a) Define a Stock Item as a Custom Type and Create a Table



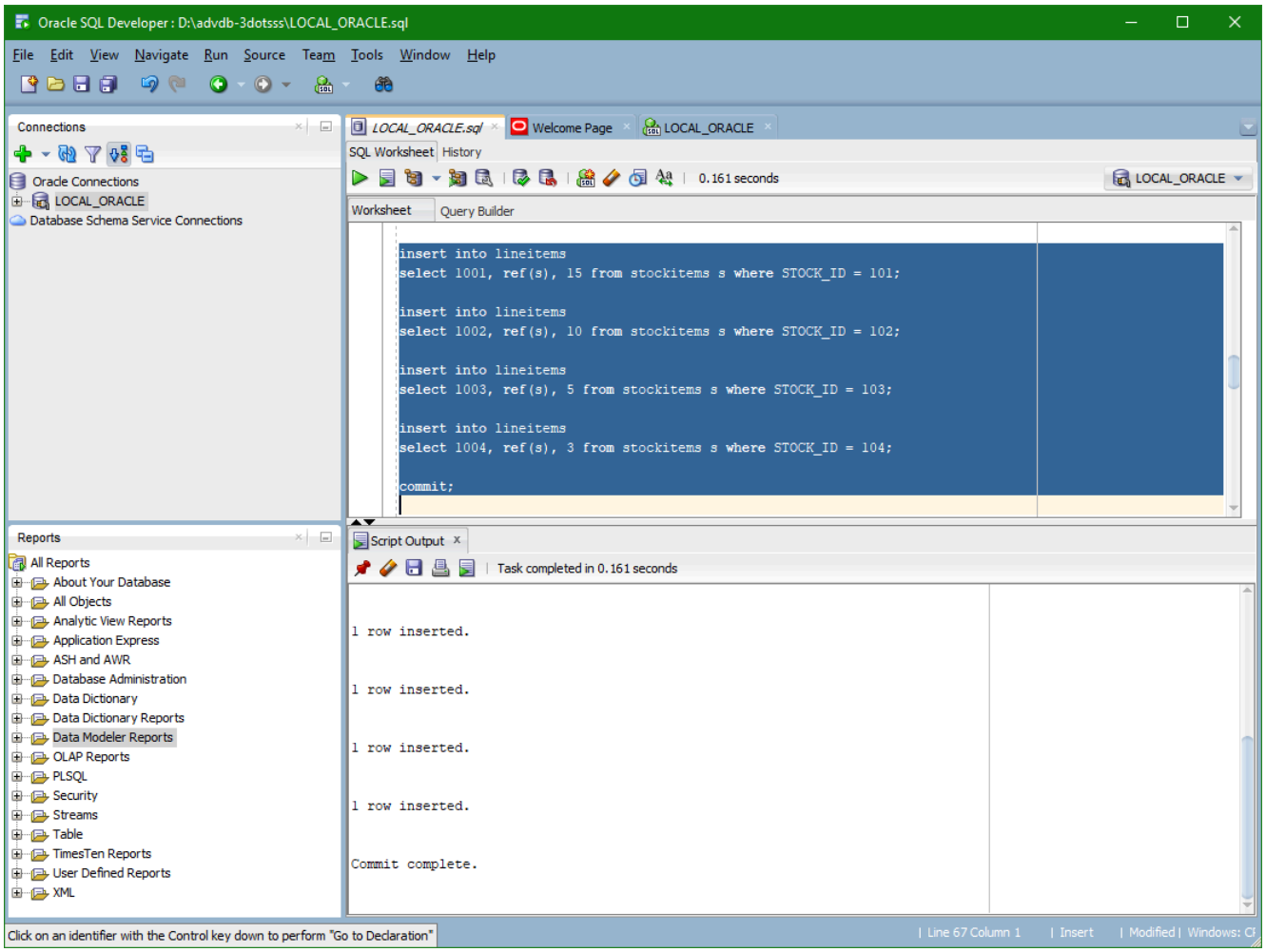
b) Define a Line Item Type That References a Stock Item



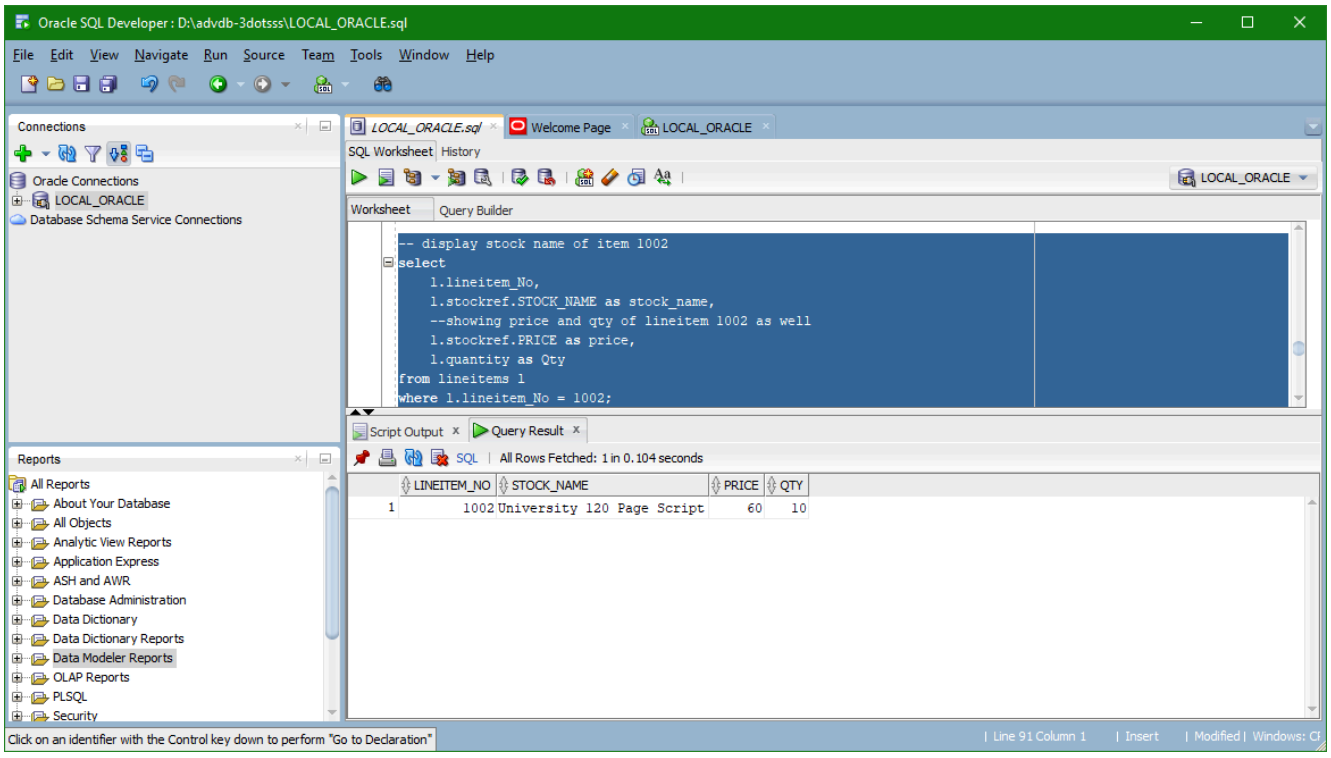
c) Populate the Stock Items Table



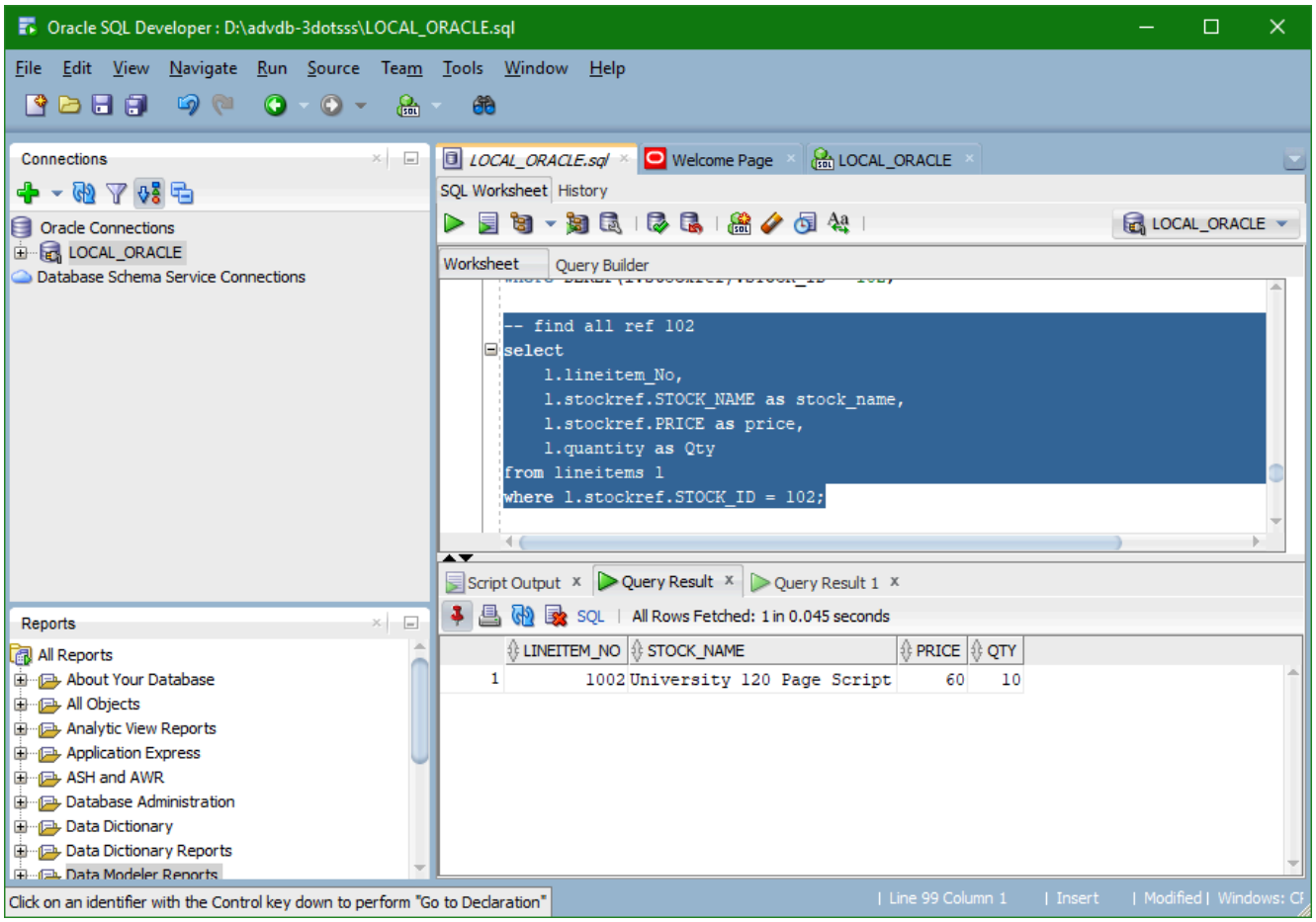
d) Populate the Line Items Table



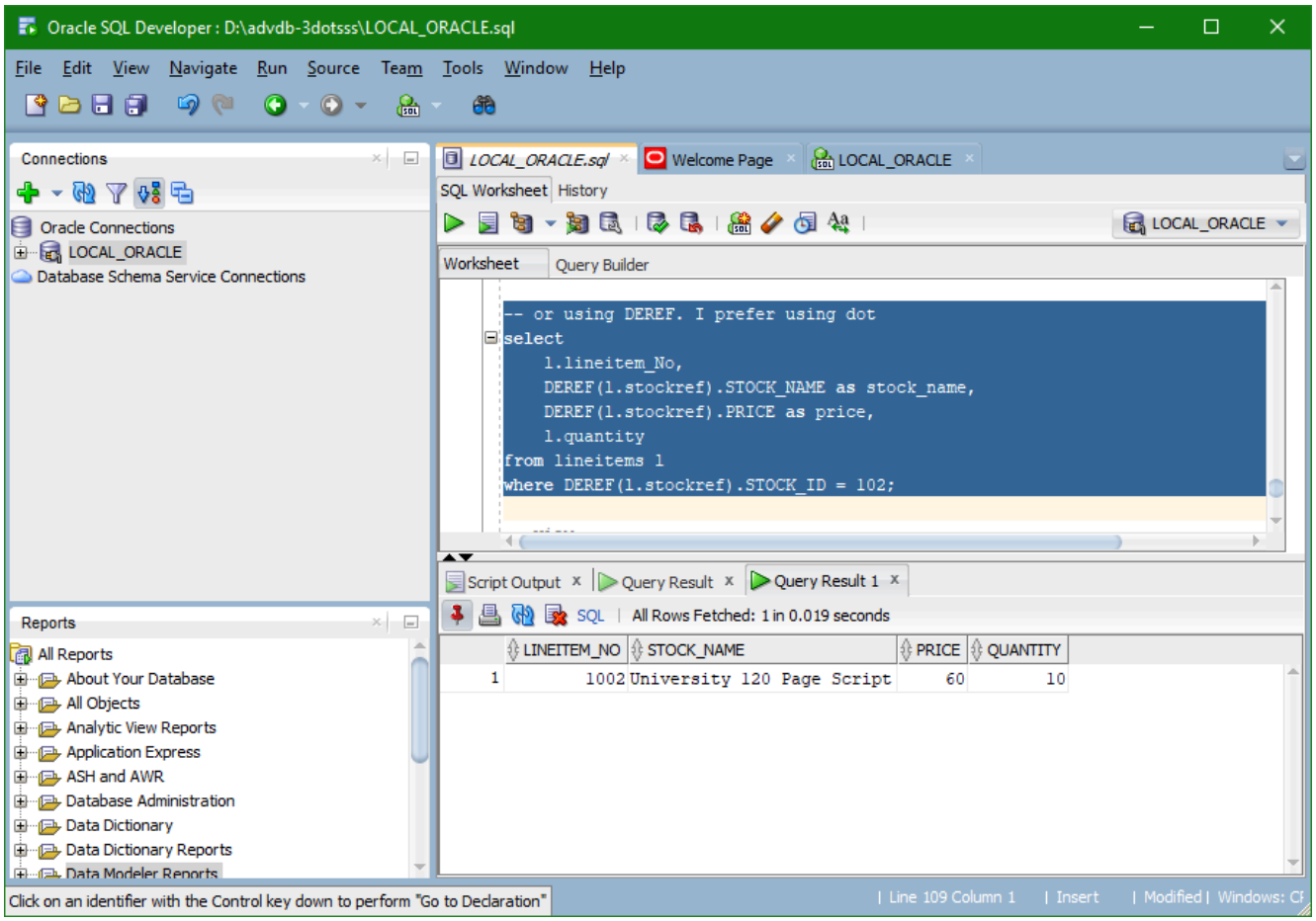
e) Display the Stock Name of a Specific Line Item (by line item number 1002)



f) Find All Line Items Referencing a Specific Stock Item (stock item number 102)



Using DEREF:



SQL Source Code:

--task4

```
create or replace type STOCKITEM_TYP as object(
    STOCK_ID number,
    STOCK_NAME VARCHAR2(32),
    PRICE number
);
/
create table STOCKITEMS of STOCKITEM_TYP;
-- STOCK_ID as primary key for unique identifier
alter table STOCKITEMS add constraint pk_stock_id primary key (STOCK_ID);
commit;
create or replace type lineitem_typ as object(
    lineitem_No number,
    stockref ref STOCKITEM_TYP,
    quantity NUMBER
);
/
create table lineitems of lineitem_typ;
-- lineitem_No as primary key for unique identifier
alter table lineitems add constraint pk_lineitem_no primary key
(lineitem_No);
commit;
insert into STOCKITEMS values(
    101,
    'Matador Hi-School Pen',
    5
);
insert into STOCKITEMS values(
    102,
    'University 120 Page Script',
    60
);

insert into STOCKITEMS values(
    103,
    '12 Inch Ruler',
    40
);
insert into STOCKITEMS values(
    104,
    'Mechanical Pencil 0.5mm',
    80
);
commit;
```

```
insert into lineitems
select 1001, ref(s), 15 from stockitems s where STOCK_ID = 101;

insert into lineitems
select 1002, ref(s), 10 from stockitems s where STOCK_ID = 102;

insert into lineitems
select 1003, ref(s), 5 from stockitems s where STOCK_ID = 103;

insert into lineitems
select 1004, ref(s), 3 from stockitems s where STOCK_ID = 104;

commit;

-- test query from 3dotsss Class
select * from lineitems;


select lineitem_no, l.stockref.STOCK_NAME as stock_name,
l.stockref.PRICE, quantity as Qty
from lineitems l
where lineitem_no = 1002;


select lineitem_no, l.stockref.STOCK_NAME as stock_name,
l.stockref.PRICE, quantity
from lineitems l;

commit;

-- display stock name of item 1002
select
    l.lineitem_No,
    l.stockref.STOCK_NAME as stock_name,
    --showing price and qty of lineitem 1002 as well
    l.stockref.PRICE as price,
    l.quantity as Qty
from lineitems l
where l.lineitem_No = 1002;
select
    l.lineitem_No,
    DEREF(l.stockref).STOCK_NAME as stock_name,
    DEREF(l.stockref).PRICE as price,
    l.quantity
```

```
from lineitems l
where DEREF(l.stockref).STOCK_ID = 102;

-- find all ref 102
select
    l.lineitem_No,
    l.stockref.STOCK_NAME as stock_name,
    l.stockref.PRICE as price,
    l.quantity as Qty
from lineitems l
where l.stockref.STOCK_ID = 102;

-- or using DEREF. I prefer using dot
select
    l.lineitem_No,
    DEREF(l.stockref).STOCK_NAME as stock_name,
    DEREF(l.stockref).PRICE as price,
    l.quantity
from lineitems l
where DEREF(l.stockref).STOCK_ID = 102;

-- view
select
    l.lineitem_No,
    l.stockref.STOCK_ID as stock_id,
    l.stockref.STOCK_NAME as stock_name,
    l.stockref.PRICE as price,
    l.quantity
from lineitems l;
```