Using the database used in Practice Case: Advanced SQL (or rebuild it using the SQL script provided Preview the document), construct the following queries:

Show the invoice number, customer number, customer name, invoice date, and invoice amount for all customers with a total purchase beyond $100.

SELECT INVOICE.CUS\_CODE, SUM(LINE.LINE\_UNITS\*LINE.LINE\_PRICE) AS Subtotal

FROM INVOICE, LINE

WHERE LINE.[INV\_NUMBER] = INVOICE.[INV\_NUMBER]

GROUP BY CUS\_CODE

HAVING SUM(LINE.LINE\_UNITS\*LINE.LINE\_PRICE)>100;

SELECT \*

FROM [dbo].[CUSTOMER],

(SELECT INVOICE.CUS\_CODE, SUM(LINE.LINE\_UNITS\*LINE.LINE\_PRICE) AS Subtotal

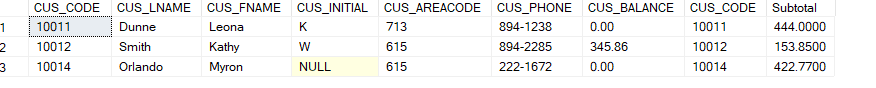
FROM INVOICE, LINE

WHERE LINE.[INV\_NUMBER] = INVOICE.[INV\_NUMBER]

GROUP BY CUS\_CODE

HAVING SUM(LINE.LINE\_UNITS\*LINE.LINE\_PRICE)>100) AS gt100

WHERE [dbo].[CUSTOMER].[CUS\_CODE]=gt100.CUS\_CODE;



Show all the invoice information and the difference between each invoice and the average invoice from all customers.

SELECT [dbo].[INVOICE].[INV\_NUMBER],SUM(LINE.LINE\_UNITS\*LINE.LINE\_PRICE) AS totalINV

FROM INVOICE, LINE

WHERE LINE.[INV\_NUMBER] = INVOICE.[INV\_NUMBER]

GROUP BY [dbo].[INVOICE].[INV\_NUMBER]

SELECT AVG(Subtotal.totalINV) AS AVGINVOICE

FROM

(SELECT

[dbo].[INVOICE].[INV\_NUMBER],SUM(LINE.LINE\_UNITS\*LINE.LINE\_PRICE) AS totalINV

FROM INVOICE, LINE

WHERE LINE.[INV\_NUMBER] = INVOICE.[INV\_NUMBER]

GROUP BY [dbo].[INVOICE].[INV\_NUMBER]) AS Subtotal

SELECT [dbo].[INVOICE].[INV\_NUMBER],

SUM(LINE.LINE\_UNITS\*LINE.LINE\_PRICE) AS totalINV,

SUM(LINE.LINE\_UNITS\*LINE.LINE\_PRICE)-(SELECT AVG(Subtotal.totalINV) AS AVGINVOICE

FROM

(SELECT

[dbo].[INVOICE].[INV\_NUMBER],SUM(LINE.LINE\_UNITS\*LINE.LINE\_PRICE) AS totalINV

FROM INVOICE, LINE

WHERE LINE.[INV\_NUMBER] = INVOICE.[INV\_NUMBER]

GROUP BY [dbo].[INVOICE].[INV\_NUMBER]) AS Subtotal) AS INVDIFF

FROM INVOICE, LINE

WHERE LINE.[INV\_NUMBER] = INVOICE.[INV\_NUMBER]

GROUP BY [dbo].[INVOICE].[INV\_NUMBER]

