**Hong Kong Institute of Vocational Education**

**(Tuen Mun)**

**Department of Information Technology**

**HD in Software Engineering (IT114105)**

**2023/2024**

**(ITP4512) Enterprise Software**

**ABAP Dictionary and ABAP Programming Assignment**

**Date: 20/04/2023**



|  |  |
| --- | --- |
| **Student** | **Signature** |
| Leung Chu Shing | Leung Chu Shing |

We declare that this is a group project and that no part of this submission has been copied from any other student’s work or from any other source except where due acknowledgement is made explicitly in the text, nor has any part been written for us by another perso

Table of content

[Part 1: Create table 3](#_Toc132811959)

[Part 2: Function module to determine earning in HK dollar 5](#_Toc132811960)

[Part 3: Function module to determine luggage weight in kilograms 15](#_Toc132811961)

[Part 4: Program to insert into the table ZASG\_yournam 19](#_Toc132811962)

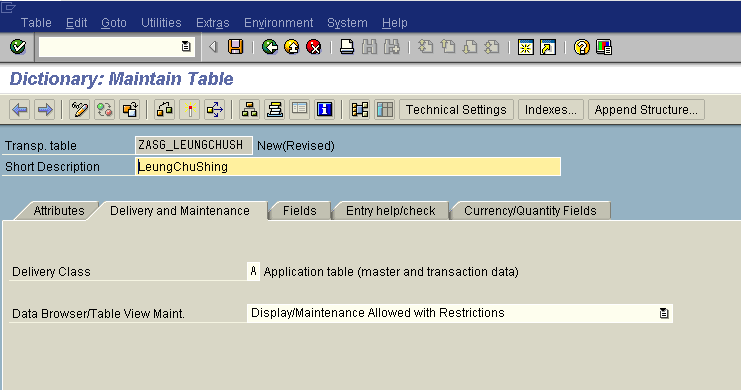
[Go to SE38, create ABAP program 19](#_Toc132811963)

[Part 5: Program to select records from table ZASG\_yourname 32](#_Toc132811964)

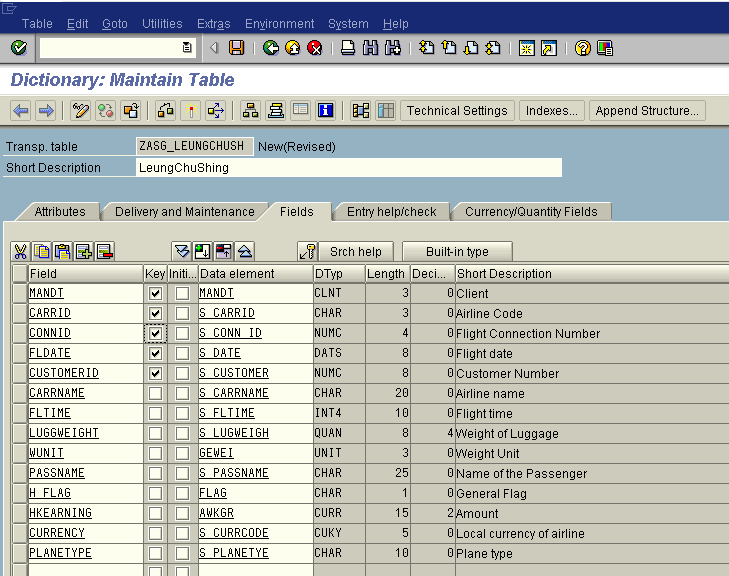
# Part 1: Create table

**SE11**

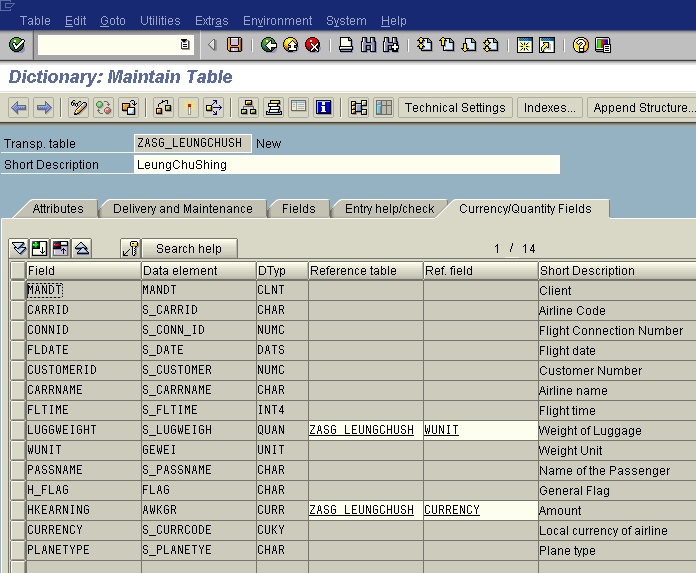
**Delivery and Maintenance**



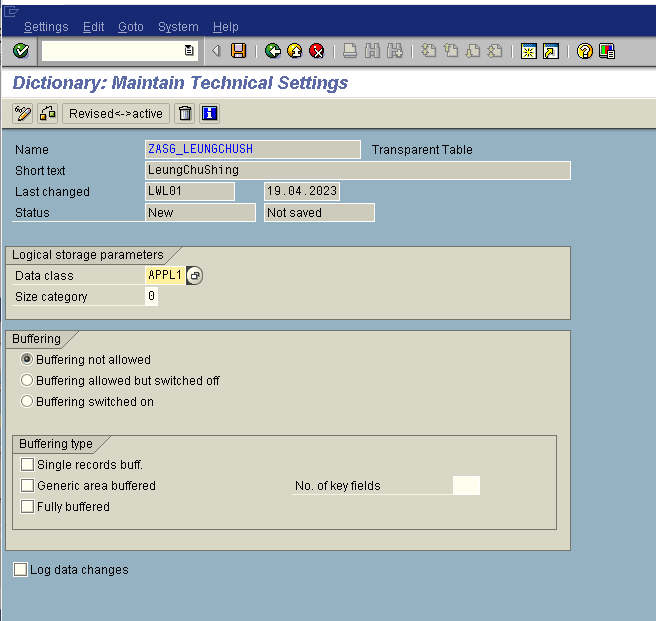
**Fields**



**Currency/Quantity Fields**



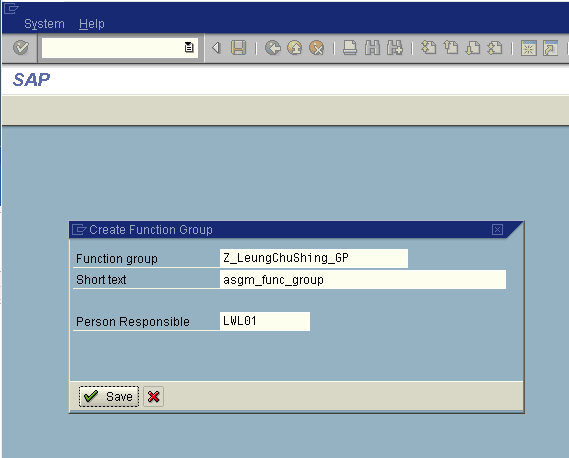
**Technical Settings**



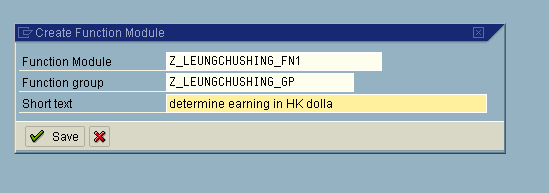
# Part 2: Function module to determine earning in HK dollar

**SE37**

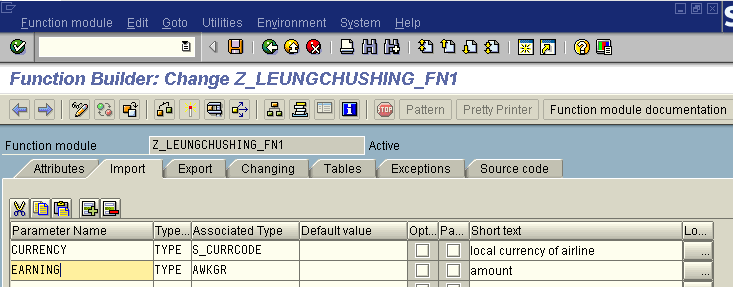
**Create function group**



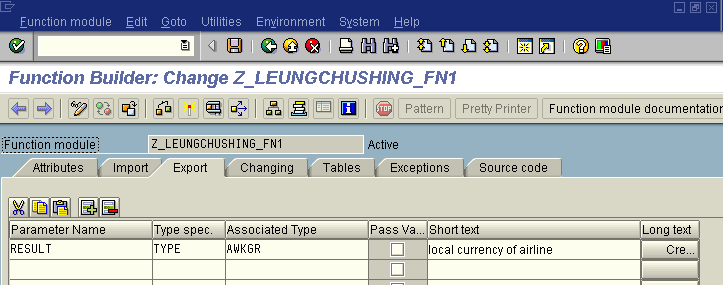
**Create function**



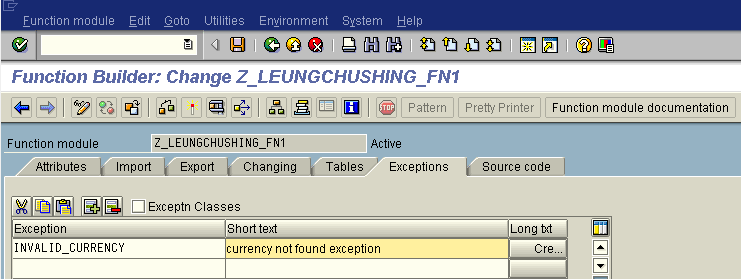
**Import**



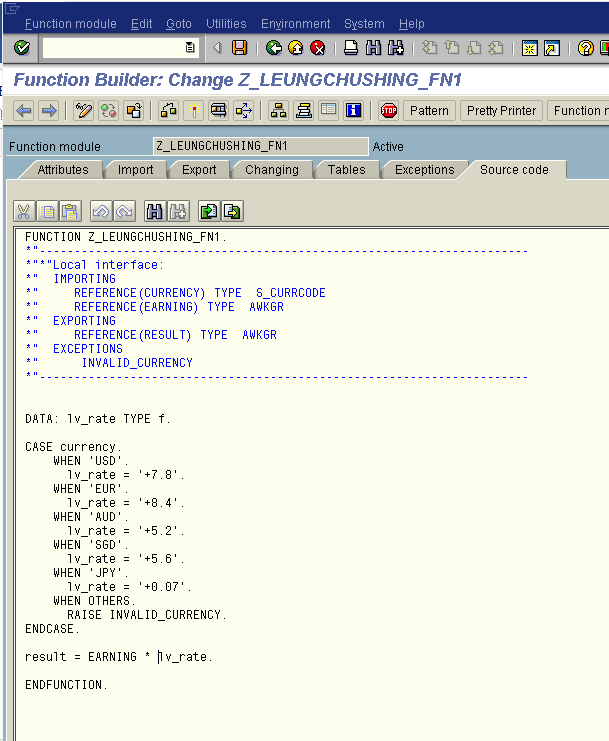
**Export**



**Exception**

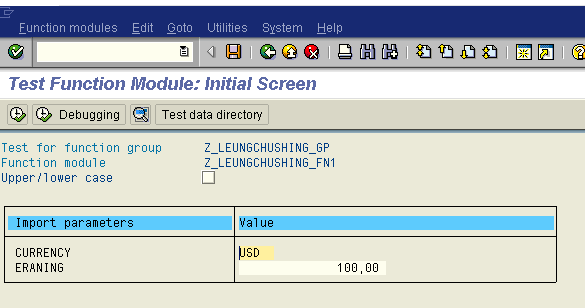


**Source code**

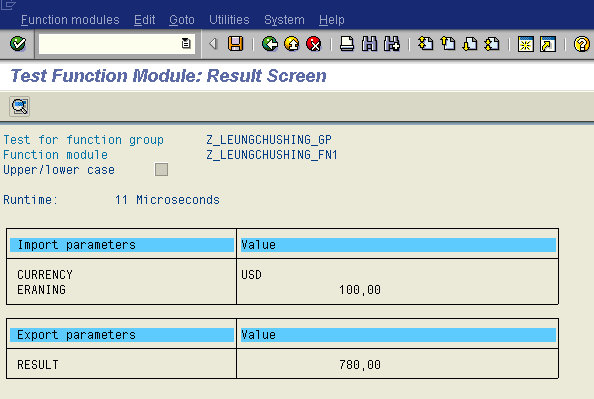


**Testing**

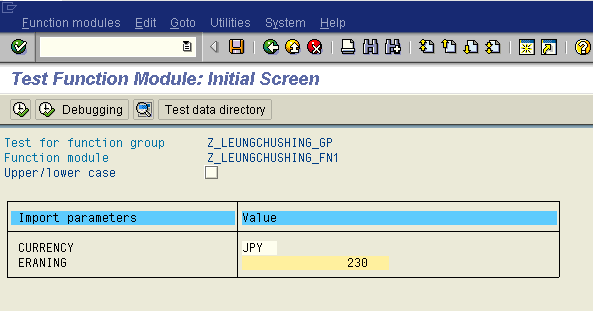
**(input: currency=”USD”, enanign=”100”)**



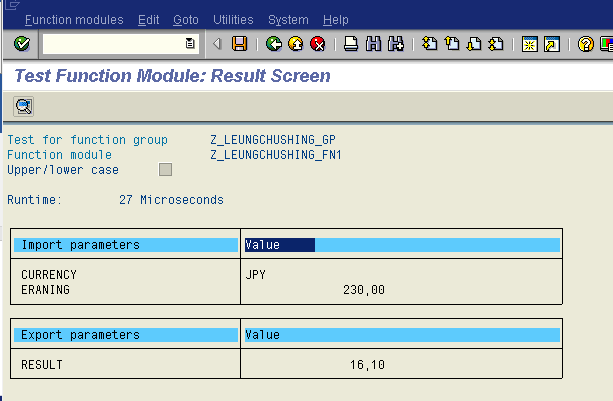
**Result (output: result=”700”)**



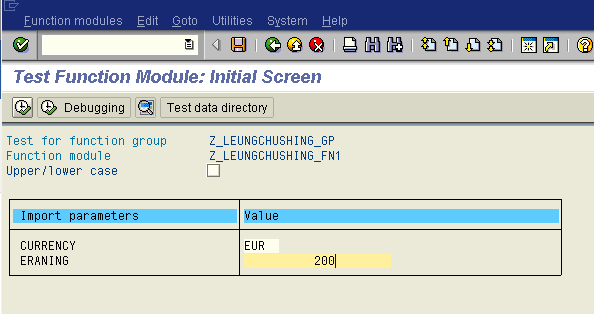
**(input: currency=”JPY”, enanign=”230”)**



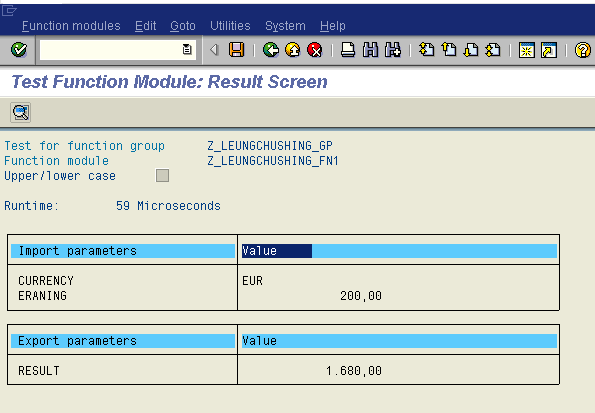
**Result (output: result=”16.1”)**



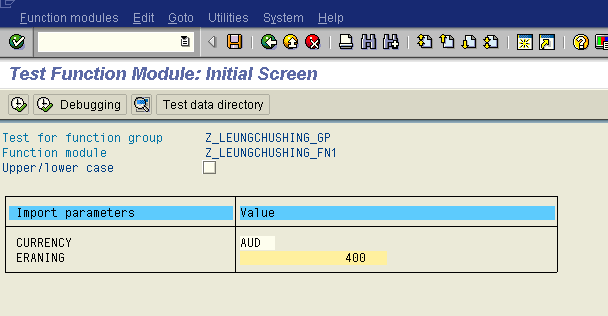
**(input: currency=”EUR”, enanign=”200”)**



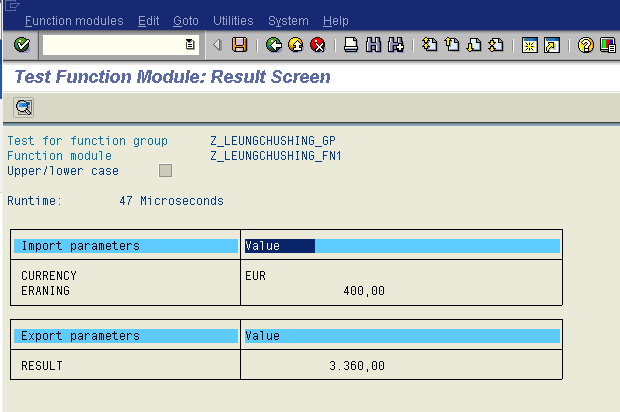
**Result (output: result=”1680”)**



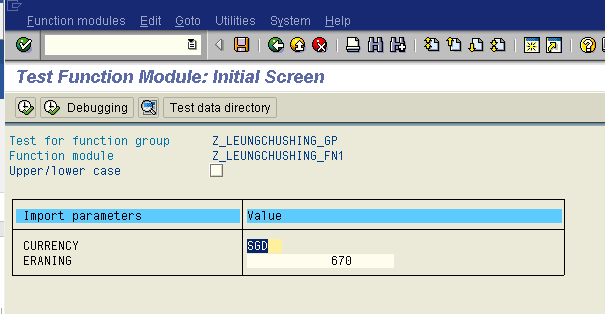
**(input: currency=”AUD”, enanign=”400”)**



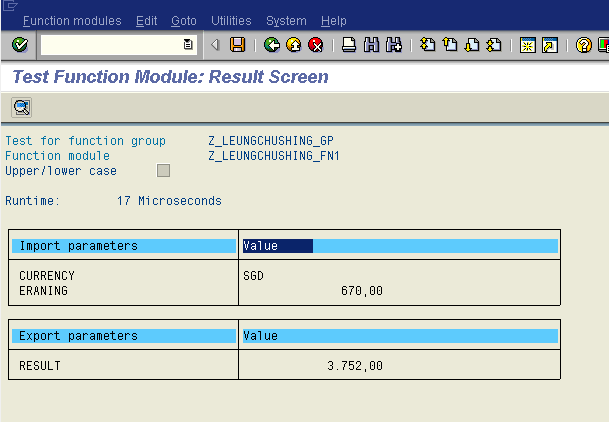
**Result (output: result=”3360”)**



**(input: currency=”SGD”, enanign=”670”)**

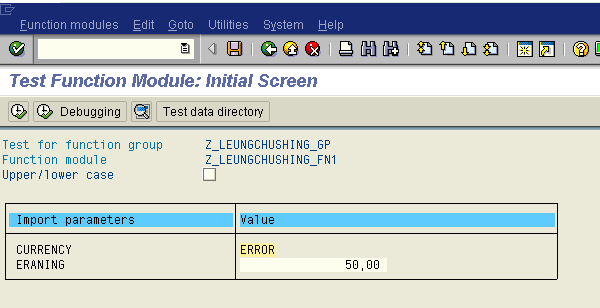


**Result (output: result=”3752”)**

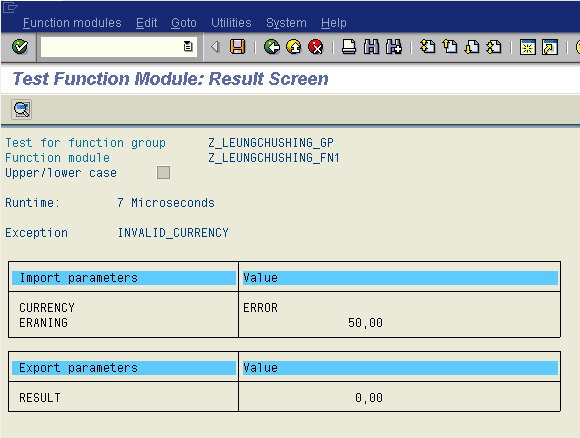


**Exception handle**

**(input: currency=”ERROR”, enanign=”50”)**

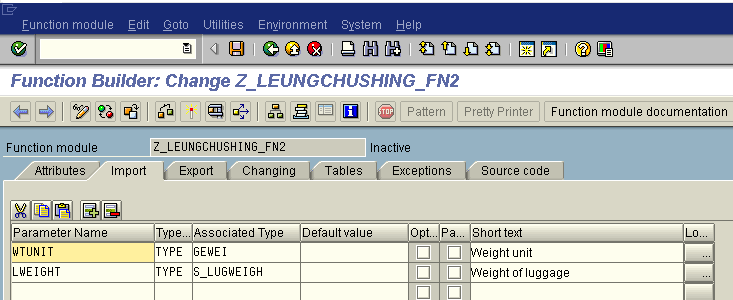


**Result: (throw exception “INVALID\_CURRENCY”)**

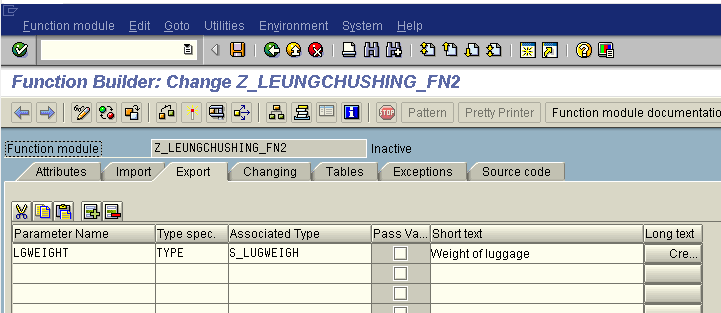


# Part 3: Function module to determine luggage weight in kilograms

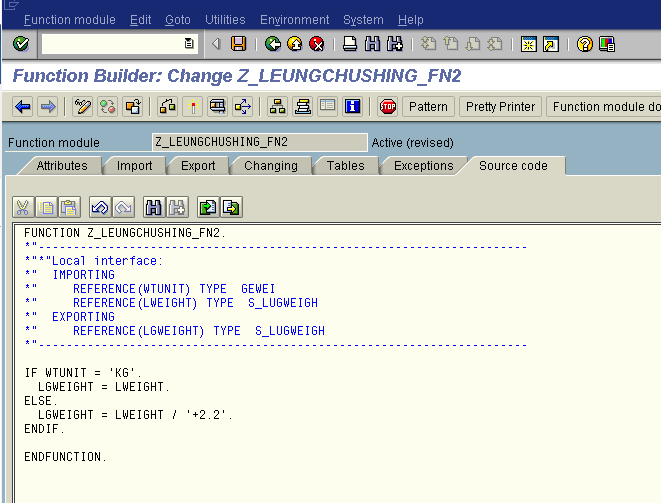
**Import**



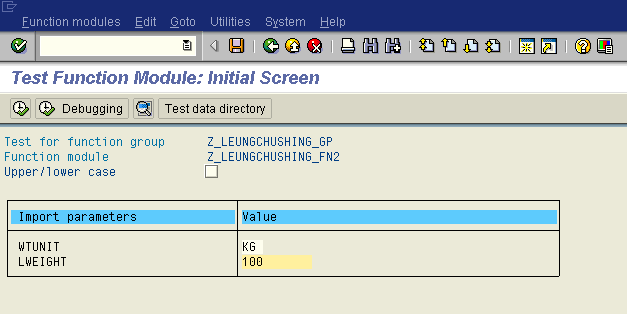
**Export**



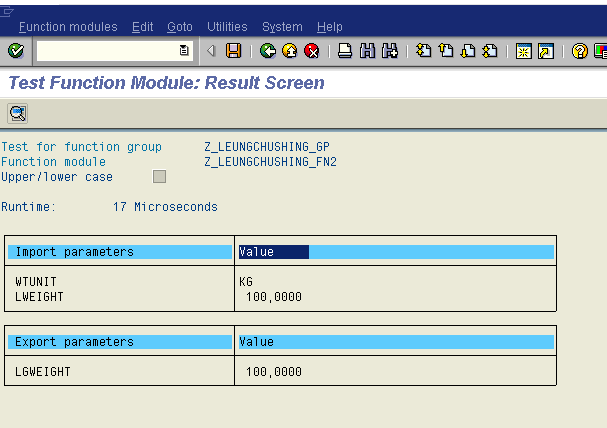
**Source Code**



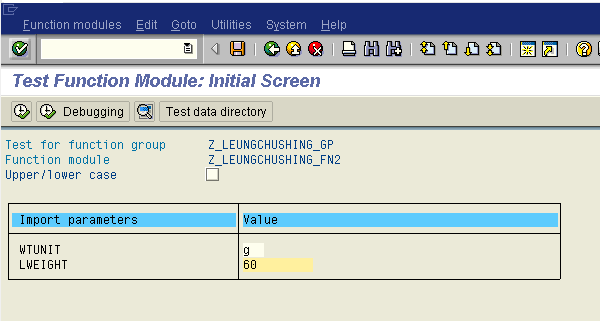
**Input(WTUNUT=”KG”, LWEIGHT=”100”)**



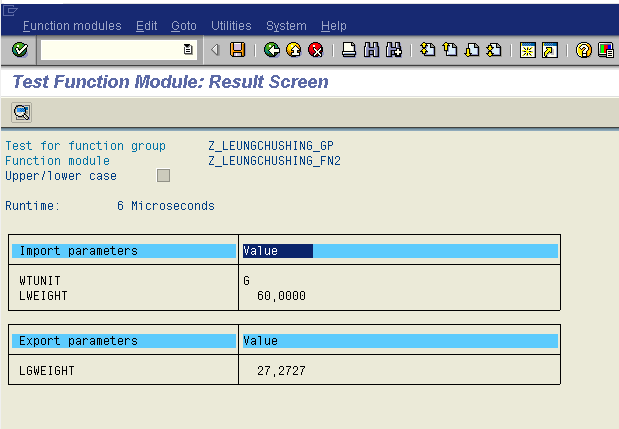
**Result(LGWEIGHT=”100”)**



**Input(WTUNUT=”g”, LWEIGHT=”60”)**



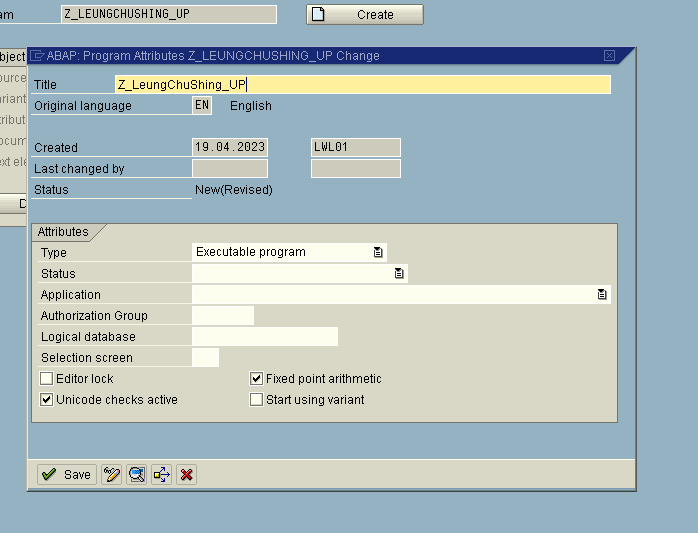
**Result(LGWEIGHT=”27.2727”)**

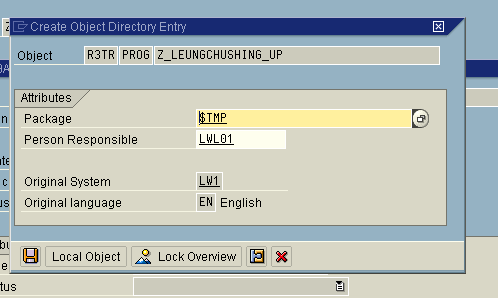


# Part 4: Program to insert into the table ZASG\_yournam

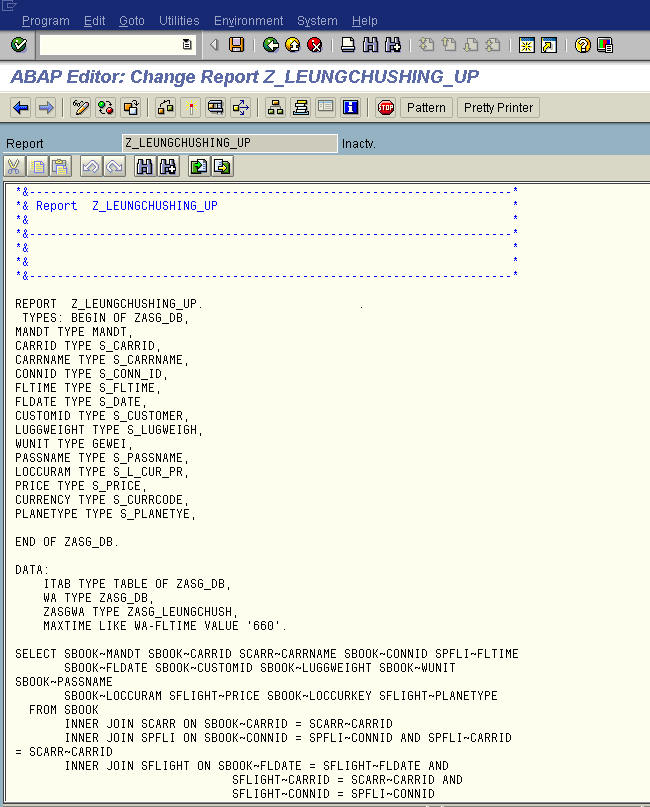
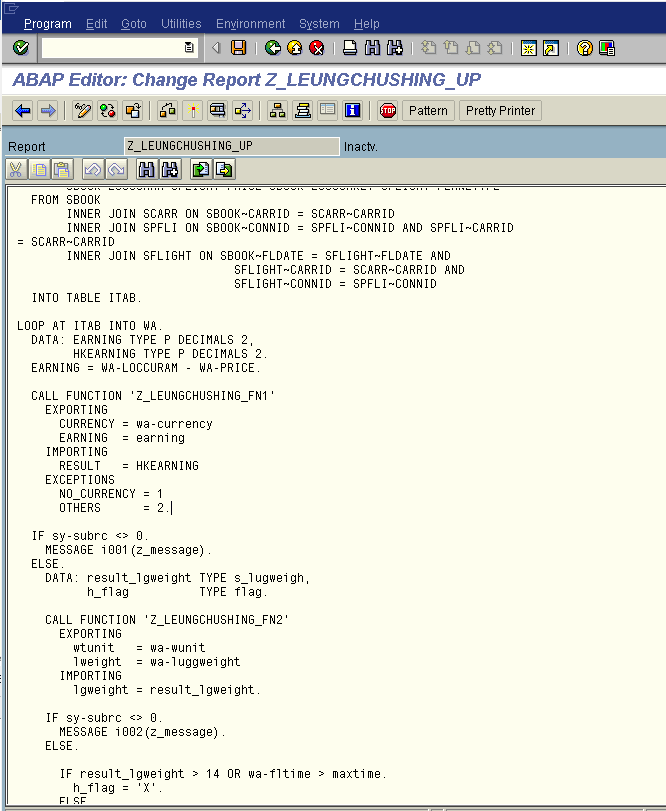
# Go to SE38, create ABAP program

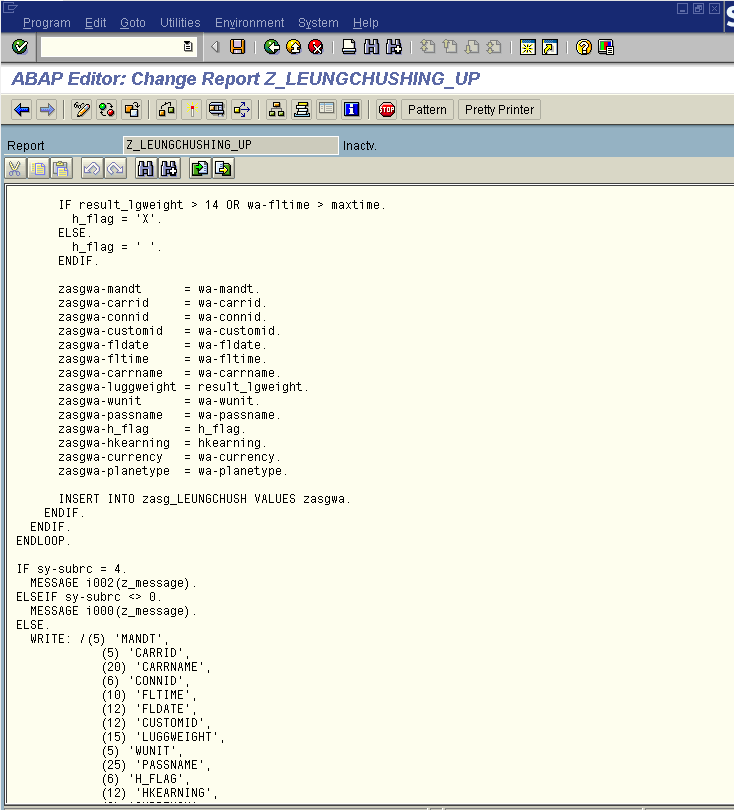
**Create program**

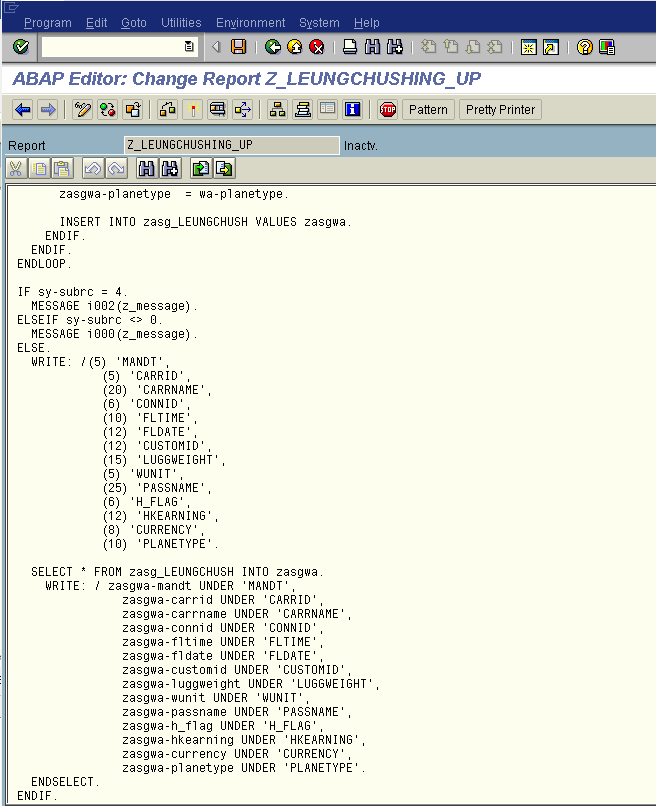




**Source code**





SELECT SBOOK~MANDT SBOOK~CARRID SCARR~CARRNAME SBOOK~CONNID SPFLI~FLTIME

SBOOK~FLDATE SBOOK~CUSTOMID SBOOK~LUGGWEIGHT SBOOK~WUNIT SBOOK~PASSNAME

SBOOK~LOCCURAM SFLIGHT~PRICE SBOOK~LOCCURKEY SFLIGHT~PLANETYPE

FROM SBOOK

INNER JOIN SCARR ON SBOOK~CARRID = SCARR~CARRID

INNER JOIN SPFLI ON SBOOK~CONNID = SPFLI~CONNID AND SPFLI~CARRID = SCARR~CARRID

INNER JOIN SFLIGHT ON SBOOK~FLDATE = SFLIGHT~FLDATE AND

SFLIGHT~CARRID = SCARR~CARRID AND

SFLIGHT~CONNID = SPFLI~CONNID

INTO TABLE ITAB.

\* Loop through the ITAB table

LOOP AT ITAB INTO WA.

DATA: EARNING TYPE P DECIMALS 2,

HKEARNING TYPE P DECIMALS 2.

EARNING = WA-LOCCURAM - WA-PRICE.

\* Call function module for currency conversion

CALL FUNCTION 'Z\_LEUNGCHUSHING\_FN1'

EXPORTING

CURRENCY = wa-currency

EARNING = earning

IMPORTING

RESULT = HKEARNING

EXCEPTIONS

NO\_CURRENCY = 1

OTHERS = 2.

\* Handle exceptions for currency conversion

IF sy-subrc <> 0.

MESSAGE i001(z\_message).

ELSE.

DATA: result\_lgweight TYPE s\_lugweigh,

h\_flag TYPE flag.

\* Call function module for weight unit conversion

CALL FUNCTION 'Z\_LEUNGCHUSHING\_FN2'

EXPORTING

wtunit = wa-wunit

lweight = wa-luggweight

IMPORTING

lgweight = result\_lgweight.

\* Handle exceptions for weight unit conversion

IF sy-subrc <> 0.

MESSAGE i002(z\_message).

ELSE.

\* Determine flag value based on weight and flight time

IF result\_lgweight > 14 OR wa-fltime > maxtime.

h\_flag = 'X'.

ELSE.

h\_flag = ' '.

ENDIF.

\* Assemble and insert data into the custom table

zasgwa-mandt = wa-mandt.

zasgwa-carrid = wa-carrid.

zasgwa-connid = wa-connid.

zasgwa-customid = wa-customid.

zasgwa-fldate = wa-fldate.

zasgwa-fltime = wa-fltime.

zasgwa-carrname = wa-carrname.

zasgwa-luggweight = result\_lgweight.

zasgwa-wunit = wa-wunit.

zasgwa-passname = wa-passname.

zasgwa-h\_flag = h\_flag.

zasgwa-hkearning = hkearning.

zasgwa-currency = wa-currency.

zasgwa-planetype = wa-planetype.

INSERT INTO zasg\_LEUNGCHUSH VALUES zasgwa.

ENDIF.

ENDIF.

ENDLOOP.

\* Output results

IF sy-subrc = 4.

MESSAGE i002(z\_message).

ELSEIF sy-subrc <> 0.

MESSAGE i000(z\_message).

ELSE.

WRITE: /(5) 'MANDT',

(5) 'CARRID',

(20) 'CARRNAME',

(6) 'CONNID',

(10) 'FLTIME',

(12) 'FLDATE',

(12) 'CUSTOMID',

(15) 'LUGGWEIGHT',

(5) 'WUNIT',

(25) 'PASSNAME',

(6) 'H\_FLAG',

(12) 'HKEARNING',

(8) 'CURRENCY',

(10) 'PLANETYPE'.

SELECT \* FROM zasg\_LEUNGCHUSH INTO zasgwa.

WRITE: / zasgwa-mandt UNDER 'MANDT',

zasgwa-carrid UNDER 'CARRID',

zasgwa-carrname UNDER 'CARRNAME',

zasgwa-connid UNDER 'CONNID',

zasgwa-fltime UNDER 'FLTIME',

zasgwa-fldate UNDER 'FLDATE',

zasgwa-customid UNDER 'CUSTOMID',

zasgwa-luggweight UNDER 'LUGGWEIGHT',

zasgwa-wunit UNDER 'WUNIT',

zasgwa-passname UNDER 'PASSNAME',

zasgwa-h\_flag UNDER 'H\_FLAG',

zasgwa-hkearning UNDER 'HKEARNING',

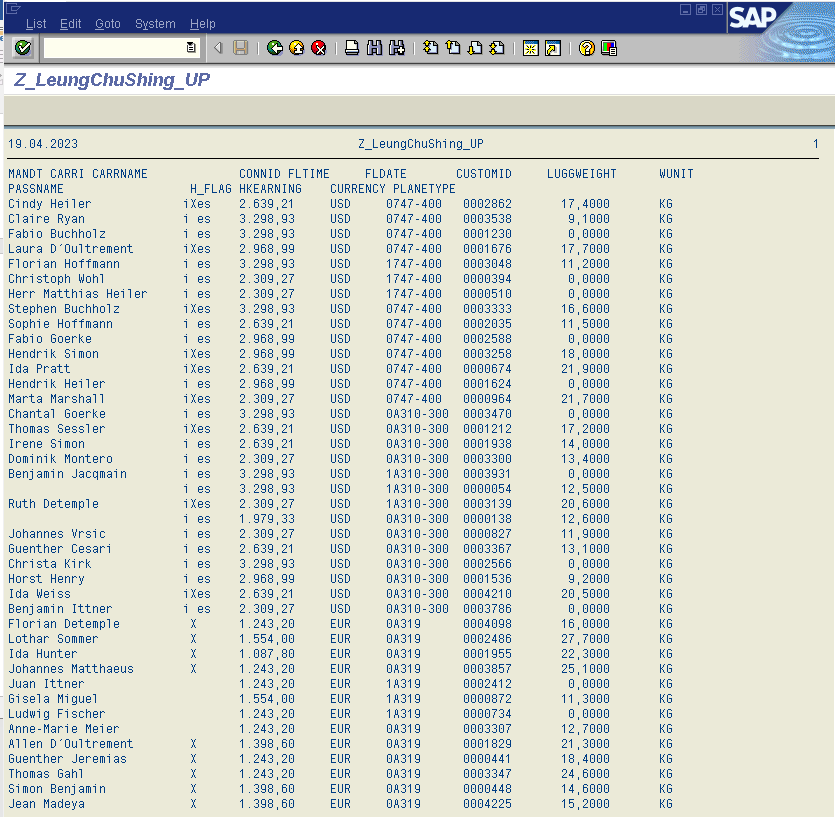
zasgwa-currency UNDER 'CURRENCY',

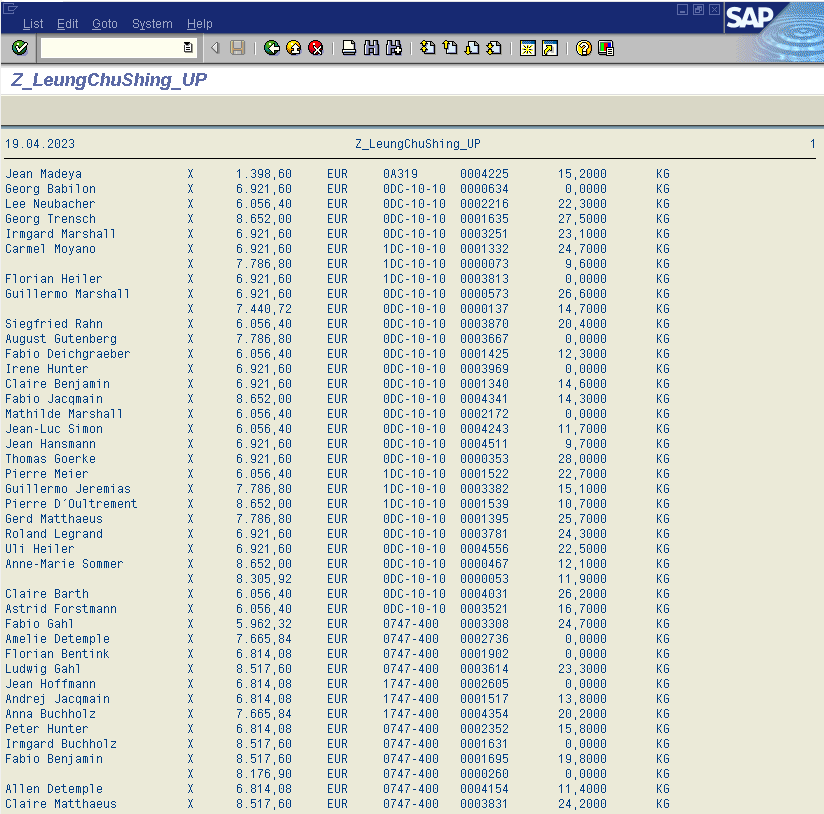
zasgwa-planetype UNDER 'PLANETYPE'.

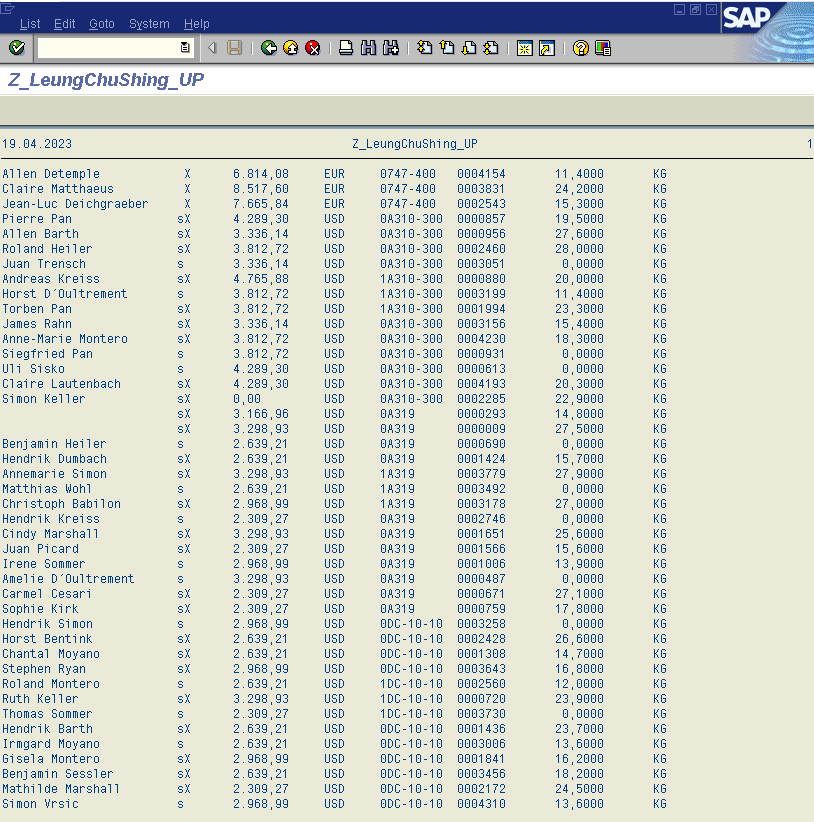
ENDSELECT.

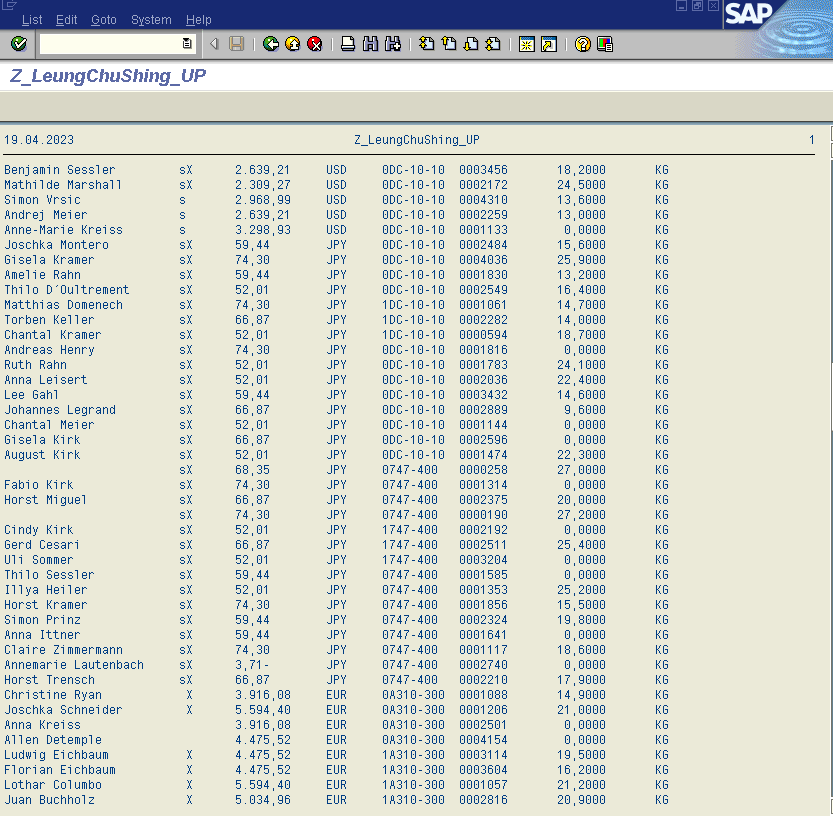
ENDIF.

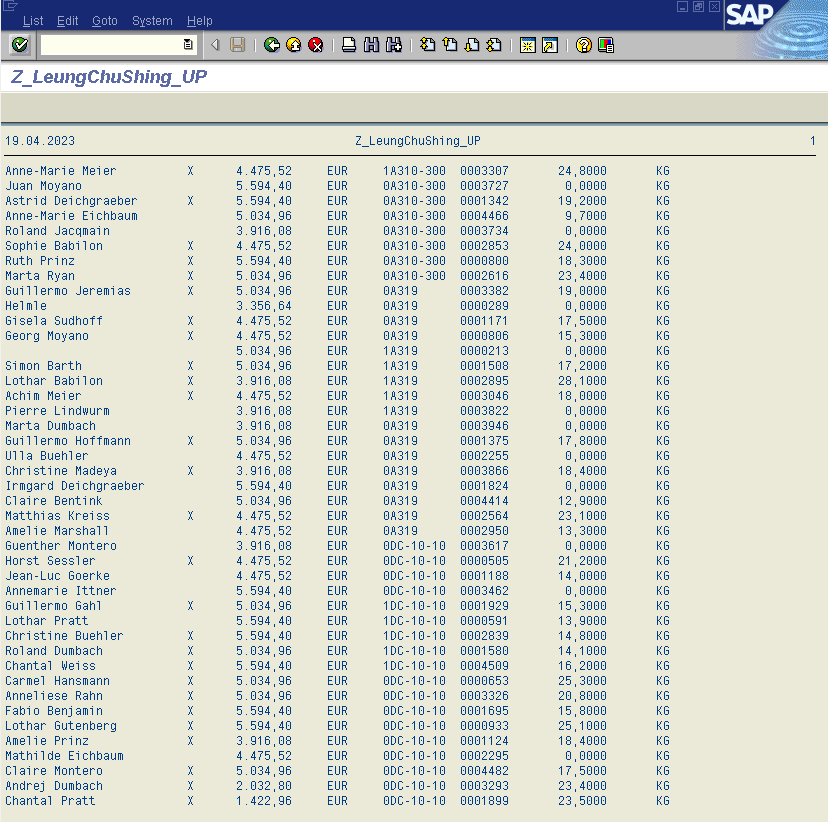
**Demo**

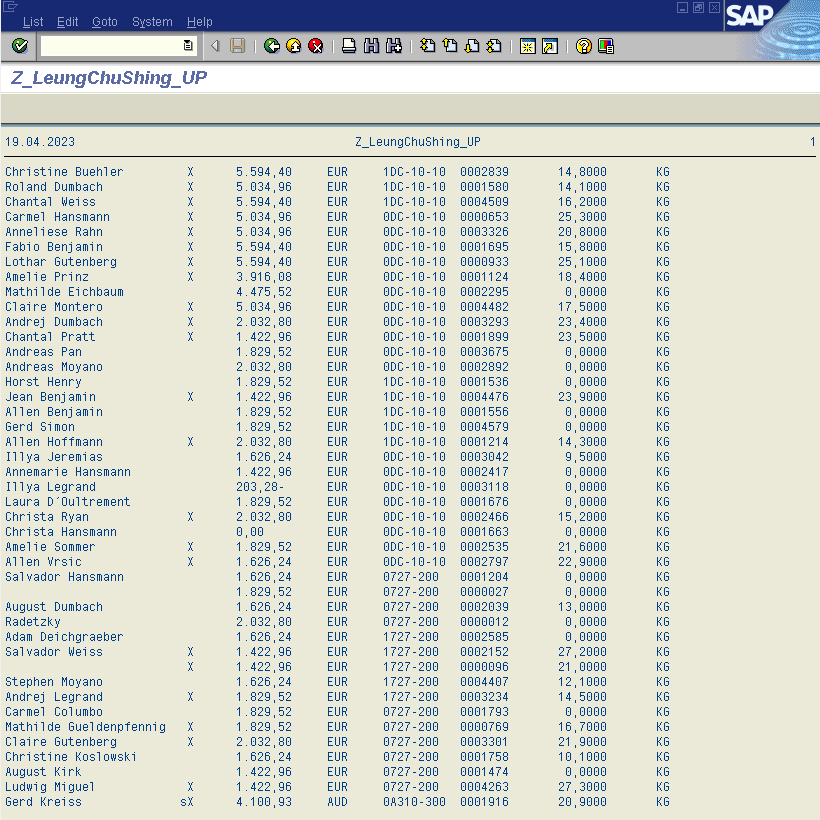


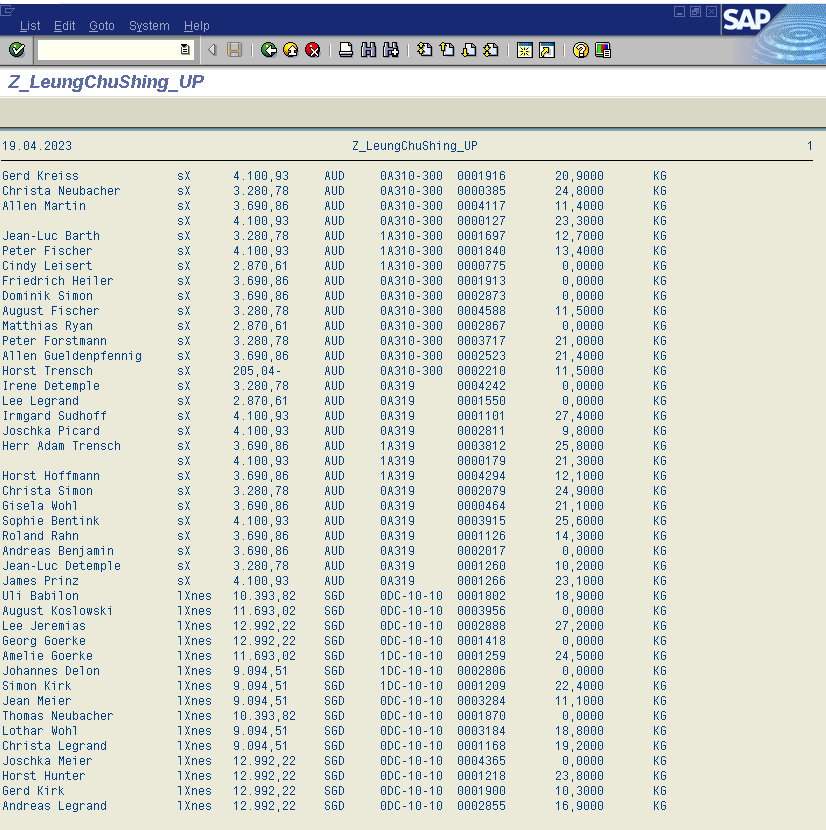


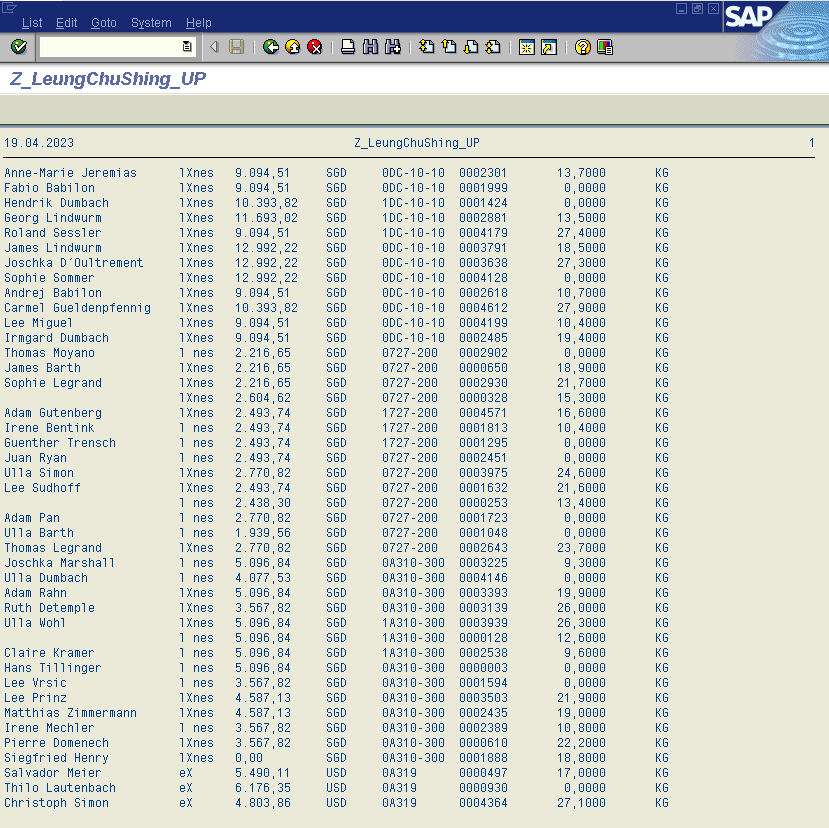


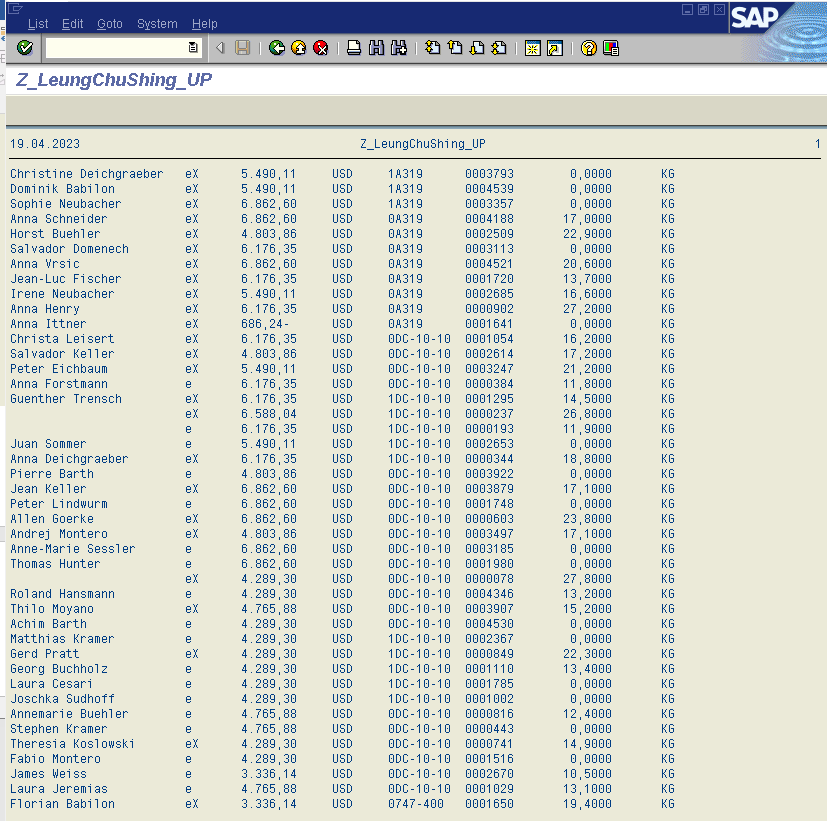


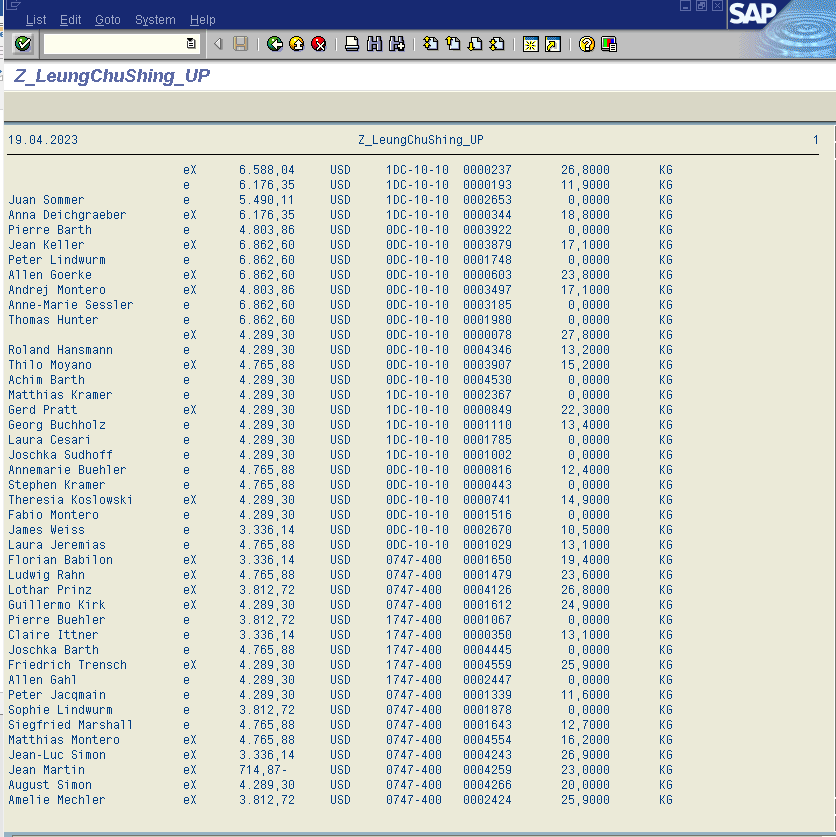






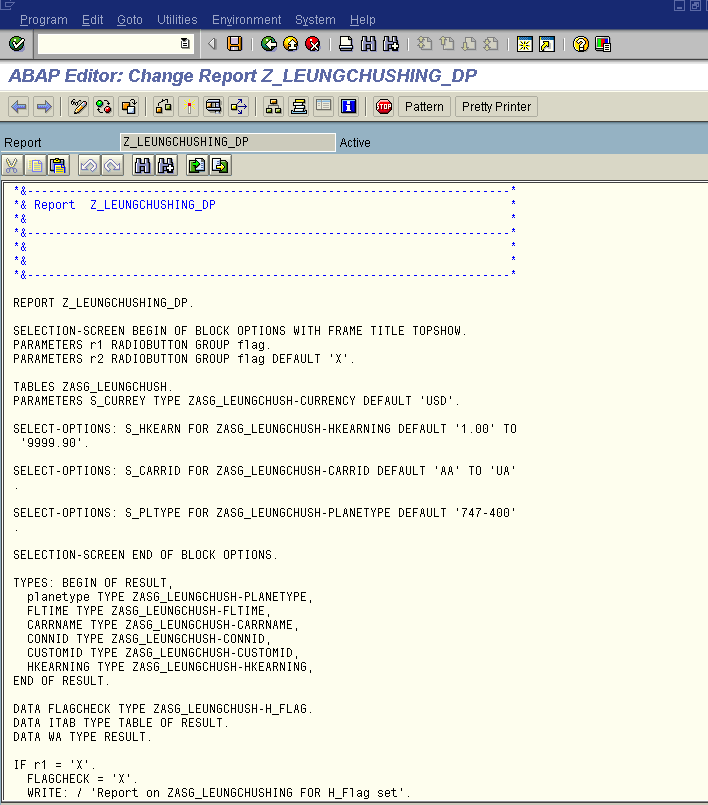


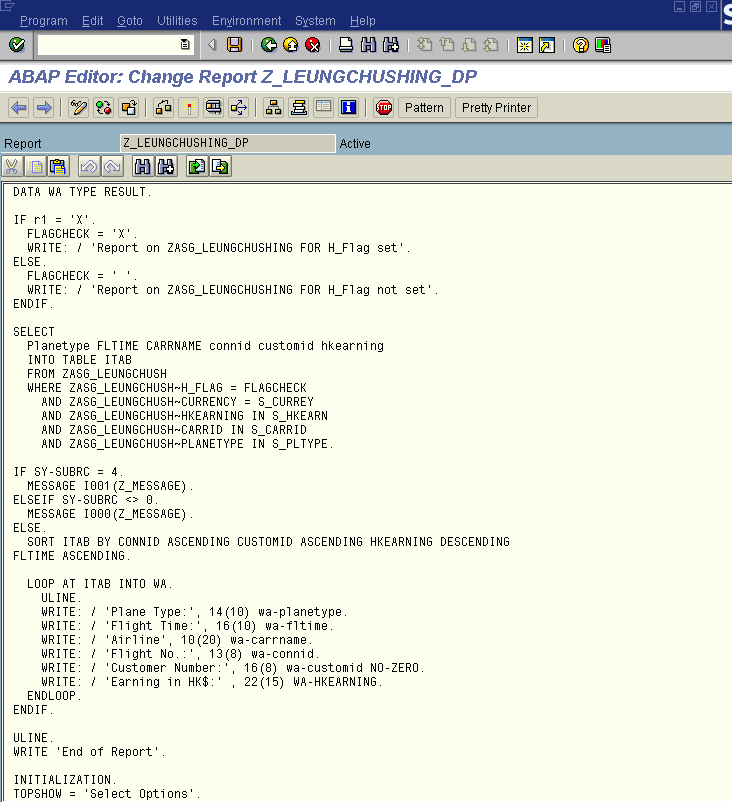


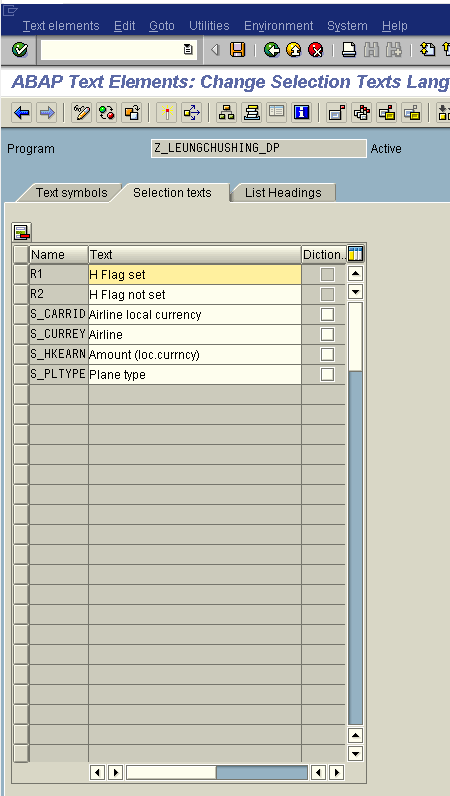


# Part 5: Program to select records from table ZASG\_yourname

**Source code :**







\*&---------------------------------------------------------------------\*

\*& Report Z\_LEUNGCHUSHING\_DP \*

\*& \*

\*&---------------------------------------------------------------------\*

\*& \*

\*& \*

\*&---------------------------------------------------------------------\*

REPORT Z\_LEUNGCHUSHING\_DP.

SELECTION-SCREEN BEGIN OF BLOCK OPTIONS WITH FRAME TITLE TOPSHOW.

PARAMETERS r1 RADIOBUTTON GROUP flag.

PARAMETERS r2 RADIOBUTTON GROUP flag DEFAULT 'X'.

TABLES ZASG\_LEUNGCHUSH.

PARAMETERS S\_CURREY TYPE ZASG\_LEUNGCHUSH-CURRENCY DEFAULT 'USD'.

SELECT-OPTIONS: S\_HKEARN FOR ZASG\_LEUNGCHUSH-HKEARNING DEFAULT '1.00' TO

'9999.90'.

SELECT-OPTIONS: S\_CARRID FOR ZASG\_LEUNGCHUSH-CARRID DEFAULT 'AA' TO 'UA'

.

SELECT-OPTIONS: S\_PLTYPE FOR ZASG\_LEUNGCHUSH-PLANETYPE DEFAULT '747-400'

.

SELECTION-SCREEN END OF BLOCK OPTIONS.

TYPES: BEGIN OF RESULT,

planetype TYPE ZASG\_LEUNGCHUSH-PLANETYPE,

FLTIME TYPE ZASG\_LEUNGCHUSH-FLTIME,

CARRNAME TYPE ZASG\_LEUNGCHUSH-CARRNAME,

CONNID TYPE ZASG\_LEUNGCHUSH-CONNID,

CUSTOMID TYPE ZASG\_LEUNGCHUSH-CUSTOMID,

HKEARNING TYPE ZASG\_LEUNGCHUSH-HKEARNING,

END OF RESULT.

DATA FLAGCHECK TYPE ZASG\_LEUNGCHUSH-H\_FLAG.

DATA ITAB TYPE TABLE OF RESULT.

DATA WA TYPE RESULT.

IF r1 = 'X'.

FLAGCHECK = 'X'.

WRITE: / 'Report on ZASG\_LEUNGCHUSHING FOR H\_Flag set'.

ELSE.

FLAGCHECK = ' '.

WRITE: / 'Report on ZASG\_LEUNGCHUSHING FOR H\_Flag not set'.

ENDIF.

SELECT

Planetype FLTIME CARRNAME connid customid hkearning

INTO TABLE ITAB

FROM ZASG\_LEUNGCHUSH

WHERE ZASG\_LEUNGCHUSH~H\_FLAG = FLAGCHECK

AND ZASG\_LEUNGCHUSH~CURRENCY = S\_CURREY

AND ZASG\_LEUNGCHUSH~HKEARNING IN S\_HKEARN

AND ZASG\_LEUNGCHUSH~CARRID IN S\_CARRID

AND ZASG\_LEUNGCHUSH~PLANETYPE IN S\_PLTYPE.

IF SY-SUBRC = 4.

MESSAGE I001(Z\_MESSAGE).

ELSEIF SY-SUBRC <> 0.

MESSAGE I000(Z\_MESSAGE).

ELSE.

SORT ITAB BY CONNID ASCENDING CUSTOMID ASCENDING HKEARNING DESCENDING

FLTIME ASCENDING.

LOOP AT ITAB INTO WA.

ULINE.

WRITE: / 'Plane Type:', 14(10) wa-planetype.

WRITE: / 'Flight Time:', 16(10) wa-fltime.

WRITE: / 'Airline', 10(20) wa-carrname.

WRITE: / 'Flight No.:', 13(8) wa-connid.

WRITE: / 'Customer Number:', 16(8) wa-customid NO-ZERO.

WRITE: / 'Earning in HK$:' , 22(15) WA-HKEARNING.

ENDLOOP.

ENDIF.

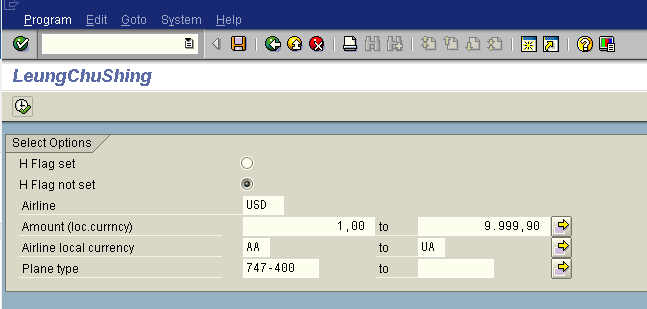
ULINE.

WRITE 'End of Report'.

INITIALIZATION.

TOPSHOW = 'Select Options'.

**Demo 1: (H Flag not set)**









**Demo 2: (H Flag set)**

