

## Applies To:

Usage of Table Control in ABAP

## Summary

Normally we use wizard if we are working with table control. This document helps us how to create a table control without using a wizard and how to manipulate the database based on the records in the table control. All the fields in the screen should be disabled. After clicking that 'Change' button, we should be able to insert new records and update existing records [Except primary key]. Save in the standard toolbar will be used to save the changes made. 'Delete' button should be used to delete the rows selected from the database.

A custom table zzz\_makt with the following fields is used in this program.

Fields	FieldType
ZMANDT	MANDT
ZMATNR	MATNR(Key field)
ZMAKTX	MAKTX
PICK	CHAR1

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**Company and Title:** Project Engineer in Wipro Technologies

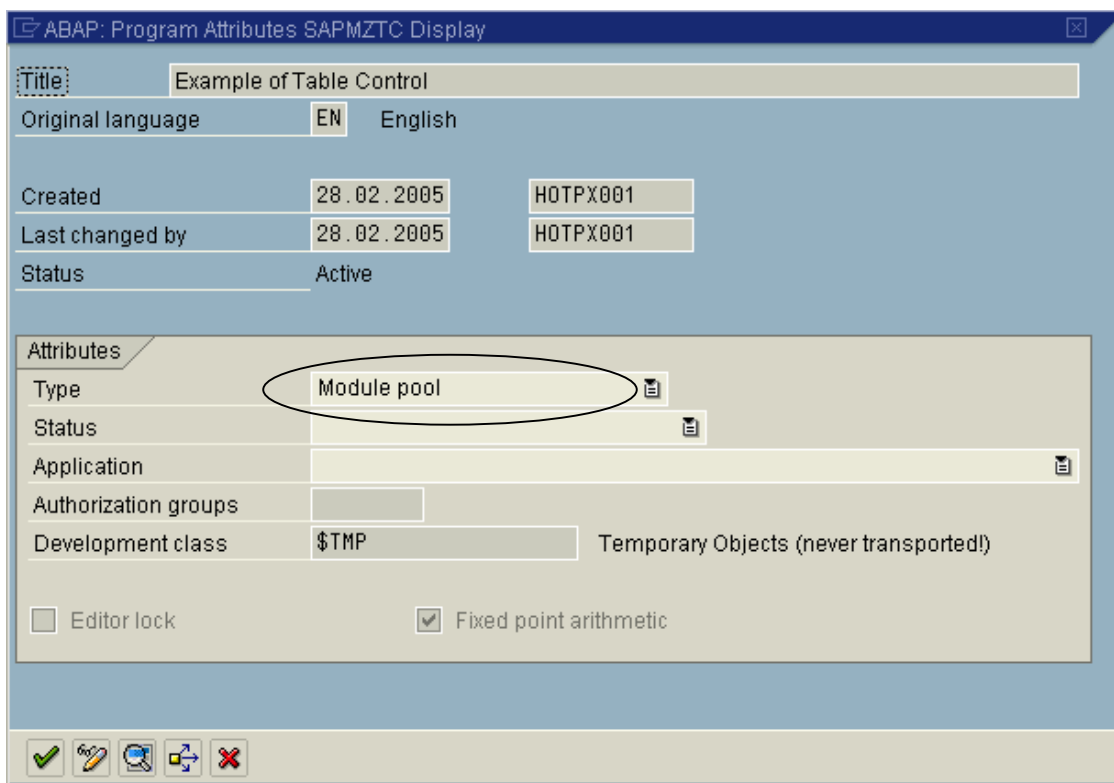
**Date:** 08 March 2005

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## Procedure

Go to SE38 -> Create a program with executable type as 'Module Pool'.



ABAP: Program Attributes SAPMZTC Display

Title: Example of Table Control

Original language: EN English

Created: 28.02.2005 H0TPX001

Last changed by: 28.02.2005 H0TPX001

Status: Active

Attributes

Type: Module pool

Status: Active

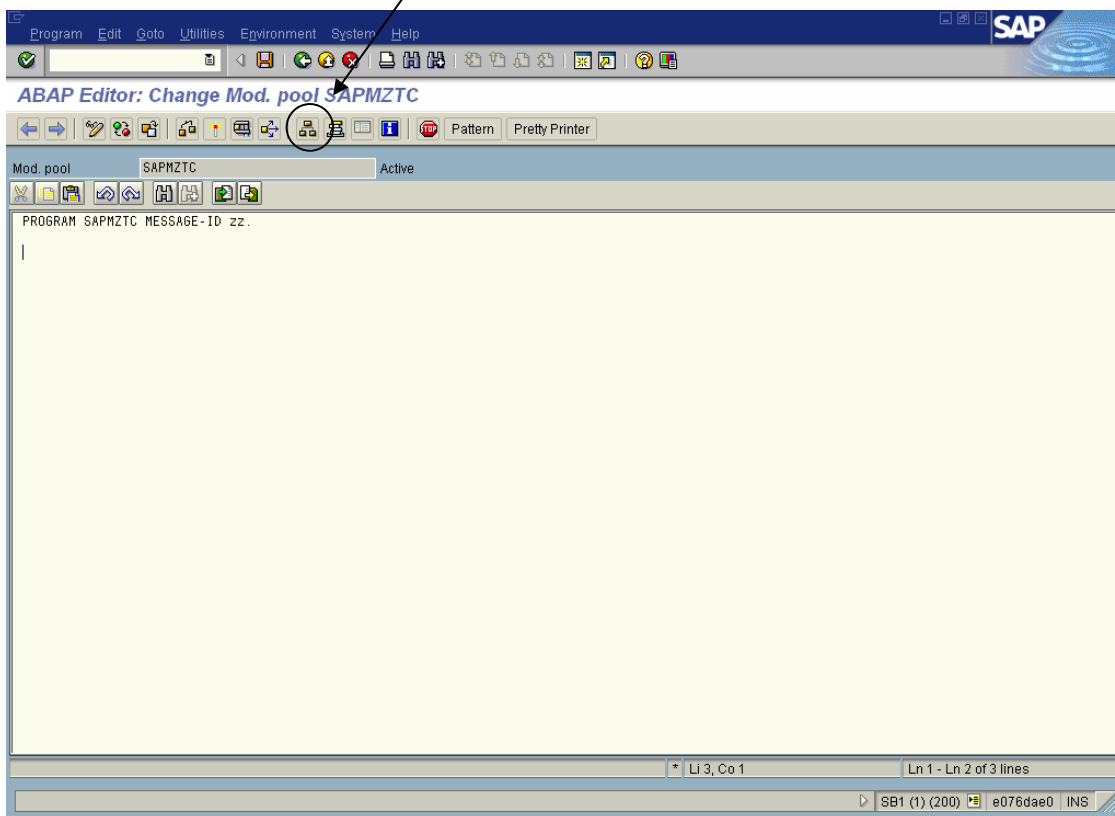
Application: SAP

Authorization groups: S\*

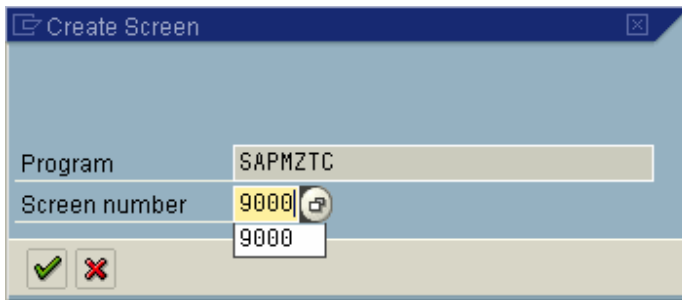
Development class: \$TMP Temporary Objects (never transported!)

☐ Editor lock ☒ Fixed point arithmetic

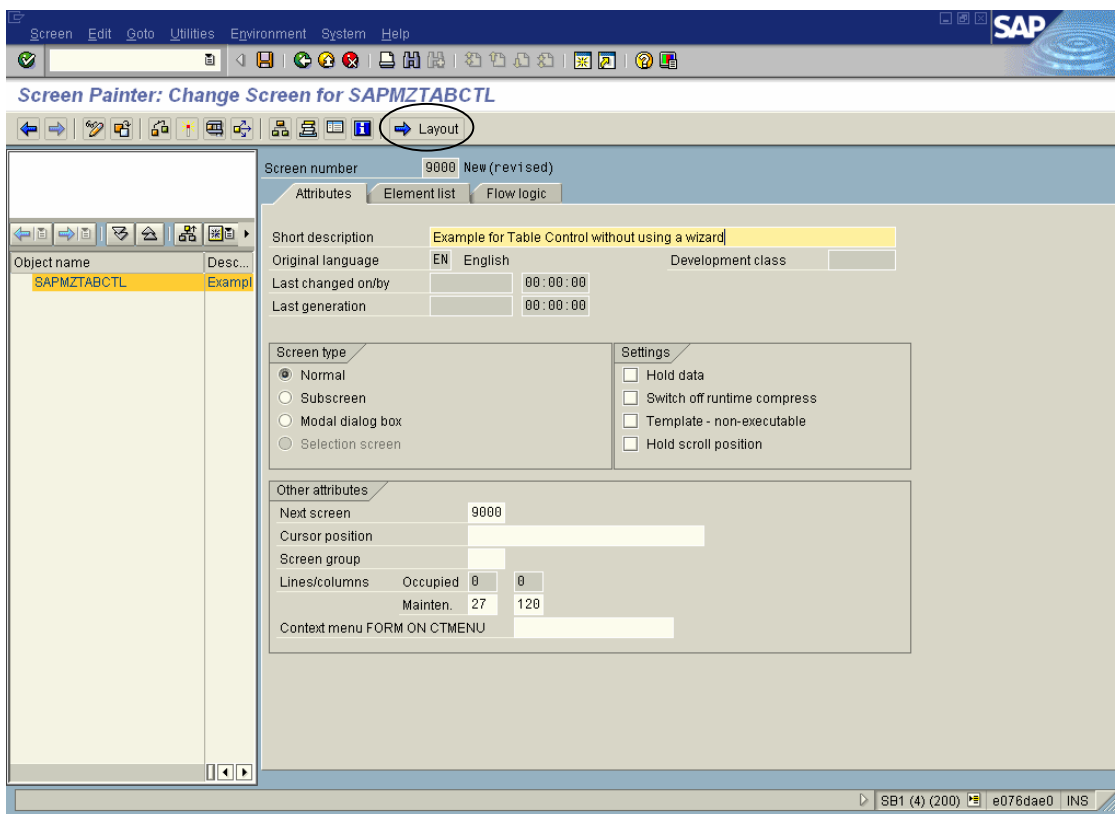
After saving this, click display object list.



Right click the program name on the left side. Click Create-> Screen. Then give screen no. [as 9000].



Then fill the attributes of the screen as follows.

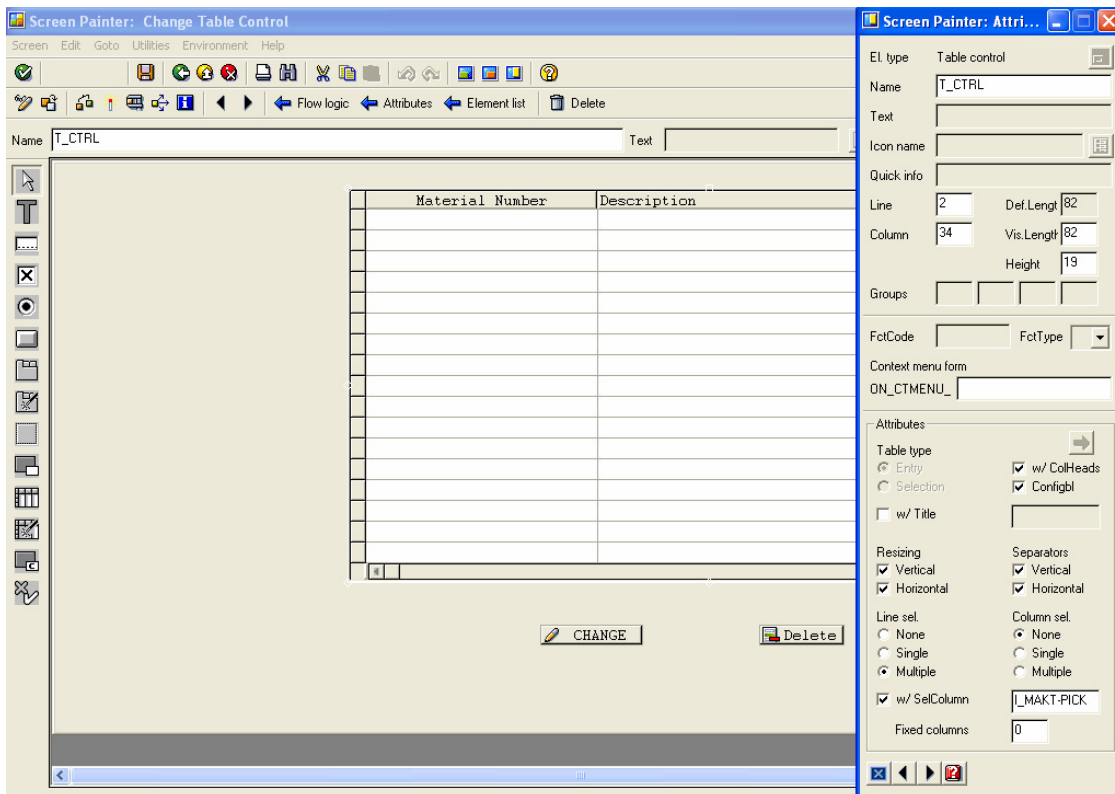


Click the layout button. Drag the table control from the controls and place it on screen.

Set the properties of table control as follows.

In the properties,

- (1) The separators checkboxes need to be checked.
- (2) The W/Selcolumn should be given a name which is having char1 in the database table so that the selection column is visible in the table control.
- (3) In order to view the horizontal scrollbar at runtime, choose the option none in Column sel.



Screen Painter: Attr...

El. type

Input/output field

Name

\_MAKT-ZMATNR

Text

Dropdown

With icon

Scrollable

Line

1

Def. Length

18

Column

1

Vis. Length

26

Height

1

Groups

FctCode

FctType

Context menu form

ON\_CTMENU\_

Attributes

Dict

Program

Display

☒ Input field
 

Input

möglich

☒ Output field
 

Output only

☐ Entry help
 

Poss. entries

☐ Right-justified
 

Leading zeros

☐ \* entry
 

Without reset

☐ Without template

Screen Painter: Attr...

El. type

Input/output field

Name

\_MAKT-ZMAKTX

Text

Dropdown

With icon

Scrollable

Line

1

Def. Length

40

Column

2

Vis. Length

52

Height

1

Groups

FctCode

FctType

Context menu form

ON\_CTMENU\_

Attributes

Dict

Program

Display

☒ Input field
 

Input

möglich

☒ Output field
 

Output only

☐ Entry help
 

Poss. entries

☐ Right-justified
 

Leading zeros

☐ \* entry
 

Without reset

☐ Without template

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Screen Painter: Attri...

El. type Pushbutton

Name CHANGE

Text CHANGE\_\_

Icon name ICON\_CHANGE

Quick info Change

Line 23 Def.Lengt 13

Column 56 Vis.Length 11

Height 1

Groups

FctCode CHANGE FctType E

Context menu form ON\_CTMENU\_

Attributes

Dict Program Display

Format CHAR

From dict. Modify

Conv. Exit

Search help

Ref. field

Parameter ID

SET parameter

GET parameter

Foreign key check

Screen Painter: Attri...

El. type Pushbutton

Name DELETE

Text Delete

Icon name ICON\_DELETE\_ROW

Quick info Delete line

Line 23 Def.Lengt 11

Column 81 Vis.Length 9

Height 1

Groups

FctCode DELETE FctType E

Context menu form ON\_CTMENU\_

Attributes

Dict Program Display

Format CHAR

From dict. Modify

Conv. Exit

Search help

Ref. field

Parameter ID

SET parameter

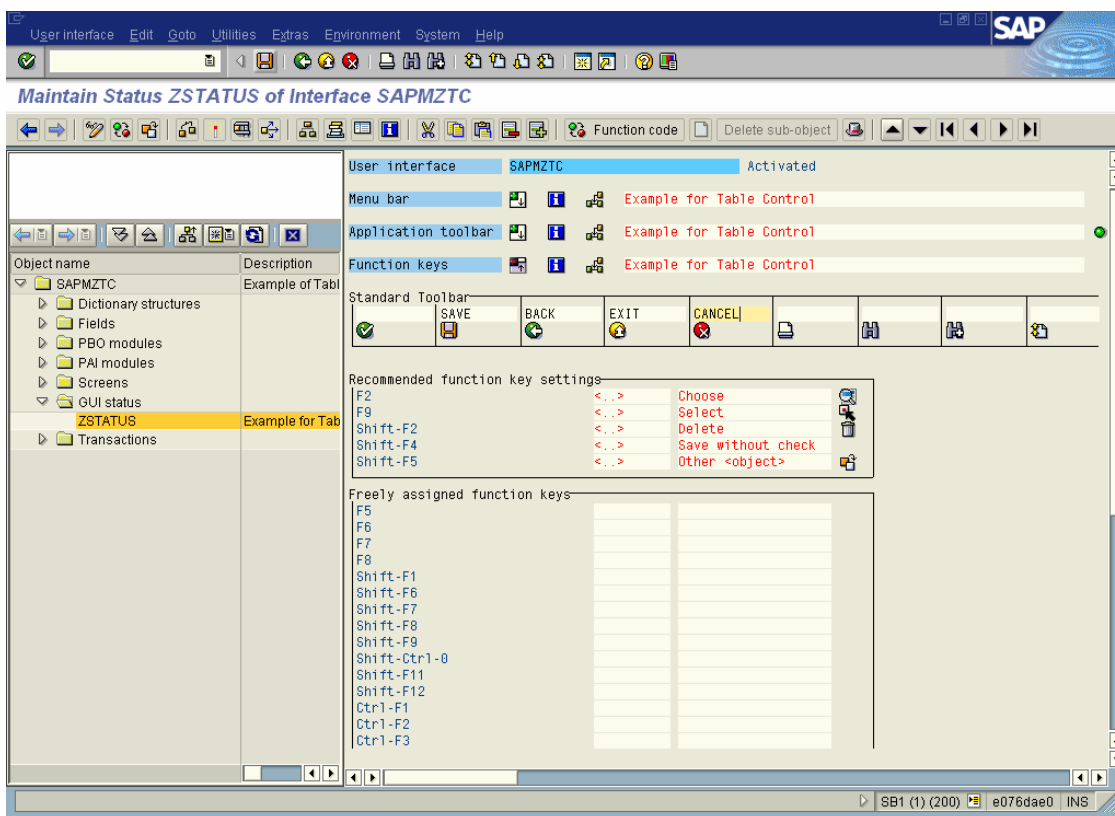
GET parameter

Foreign key check

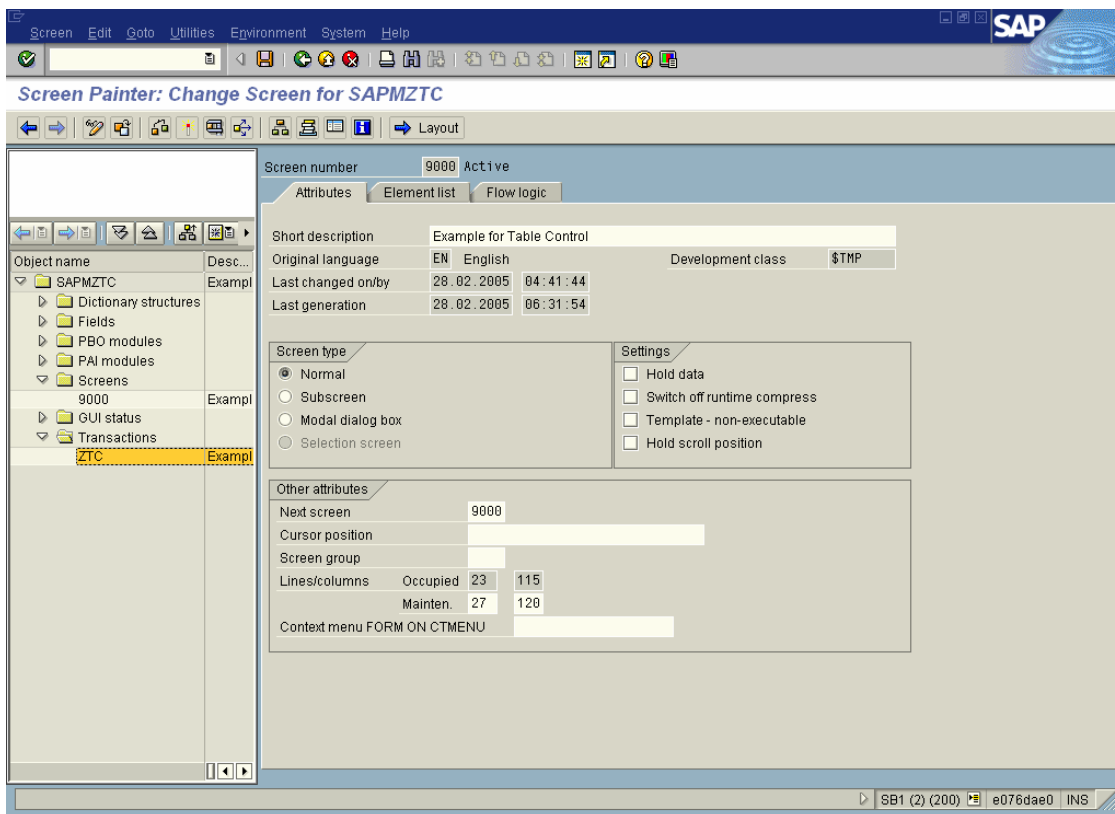
Create the status by right clicking create ->GUI Status in the object display.

Similarly create title.

Set the SAVE , BACK, EXIT, CANCEL in standard toolbar and activate it.



Create a transaction by right clicking create -> Transaction in the object display. Enter required fields.



### Code

In the flow logic of the screen 9000, write the following code.

```
PROCESS BEFORE OUTPUT.

    MODULE set_status.

    MODULE get_t_ctrl_lines.
    LOOP AT i_makt WITH CONTROL t_ctrl CURSOR t_ctrl-current_line.
* Dynamic screen modifications
        MODULE set_screen_fields.
    ENDLOOP.

*
PROCESS AFTER INPUT.

    LOOP AT i_makt.
        FIELD i_makt-pick MODULE check.
        FIELD i_makt-zmatnr MODULE zmatnr .
    ENDLOOP.

    MODULE user_command_9000.
```

In the program, write the following code.

```
PROGRAM SAPMZTC MESSAGE-ID zz.

*****
* Tables Declaration
*****

TABLES: zzz_makt.
```

```

*****
* Internal table Declaration
*****

DATA : i_makt TYPE STANDARD TABLE OF zzz_makt WITH HEADER LINE.

*****

* Table control Declaration
*****

CONTROLS: t_ctrl TYPE TABLEVIEW USING SCREEN '9000'.

*****

* Variable Declaration
*****

DATA : flg,           "Flag to set the change mode
      ln TYPE i.      "No. of records

*&-----*
*&      Module  get_T_CTRL_lines  OUTPUT
*&-----*
*   Populating data
*-----*

MODULE get_t_ctrl_lines OUTPUT.
  SELECT zmatnr zmaktx
        INTO CORRESPONDING FIELDS OF TABLE i_makt
        FROM zzz_makt.
  DESCRIBE TABLE i_makt LINES ln.
* To make the vertical scroll bar to come on runtime
  t_ctrl-lines = ln + 100.
ENDMODULE.           " get_T_CTRL_lines  OUTPUT

*&-----*
*&      Module  USER_COMMAND_9000  INPUT

```

```
*&-----*
* Triggering event according to the user command
*-----*
MODULE user_command_9000 INPUT.
    DATA :lv_fcode LIKE sy-ucomm,      "Function Code
           lv_answer(1) type c.         "Storing the answer
    lv_fcode = sy-ucomm.
    CASE lv_fcode.
        WHEN 'CHANGE'.
            * Setting the flag to make the table control in editable mode[excluding
            * primary key].
            flg = 'Y'.
            WHEN 'DELETE'.
            * Setting the flag to make the table control in editable mode after
            * deleting the selected line
            flg = 'Y'.
            * Confirmation of delete
            CALL FUNCTION 'POPUP_TO_CONFIRM'
                EXPORTING
                    TITLEBAR          = 'Confirm'
                    text_question      = 'Are you sure to delete from database?'
                    TEXT_BUTTON_1     = 'Yes' (001)
                    TEXT_BUTTON_2     = 'No' (002)
                IMPORTING
                    ANSWER             = lv_answer.
            if lv_answer eq '1'.
            * Updating the database table from the internal table
            UPDATE zzz_makt FROM TABLE i_makt.
            * Deleting the selected row from the internal table
            DELETE i_makt WHERE pick = 'X'.
            * Deleting the selected row from the database table
            DELETE FROM zzz_makt WHERE pick = 'X'.
            MESSAGE s005 WITH 'Deleted Successfully'.
```

```
ENDIF.
WHEN 'SAVE'.
* Inserting new record or updating existing record in database table
* from the internal table
    MODIFY zzz_makt FROM TABLE i_makt.
    MESSAGE s005 WITH 'Saved Successfully'.
WHEN 'BACK'.
    SET SCREEN '0'.
WHEN 'EXIT' OR 'CANCEL'.
* Leaving the program
    LEAVE PROGRAM.
ENDCASE.
ENDMODULE.                                " USER_COMMAND_9000 INPUT

*&-----*
*&      Module  set_screen_fields  OUTPUT
*&-----*
* Setting the screen fields
*-----*
MODULE set_screen_fields OUTPUT.
    LOOP AT SCREEN.
        IF flg IS INITIAL.
            screen-input = 0.
        ELSEIF ( flg EQ 'Y' ).
            IF ( ( screen-name = 'I_MAKT-ZMAKTX'
                  OR screen-name = 'I_MAKT-CHECK1' )
                AND t_ctrl-current_line LE ln ) .
* Making the screen fields as editable
                screen-input = 1.
            ELSEIF ( ( screen-name = 'I_MAKT-ZMATNR' )
                    AND t_ctrl-current_line LE ln ) .
* Making the screen field as uneditable
                screen-input = 0.
            
```

```

ENDIF.
ENDIF.
* Modifying the screen after making changes
  MODIFY SCREEN.
ENDLOOP.
ENDMODULE.                " set_screen_fields  OUTPUT

*&-----*
*&      Module  zmatnr  INPUT
*&-----*
* Appending records to the internal table
*-----*
MODULE zmatnr INPUT.
  MODIFY i_makt INDEX t_ctrl-current_line.
  IF t_ctrl-current_line GT ln.
    READ TABLE i_makt WITH KEY zmatnr = i_makt-zmatnr.
    IF sy-subrc NE 0.
* Inserting record if it does not exist in database
      APPEND i_makt.
    ELSE.
      MESSAGE i005 WITH 'Material Number' i_makt-zmatnr 'already exists'.
    ENDIF.
  ENDIF.
ENDMODULE.                " zmatnr  INPUT

*&-----*
*&      Module  set_status  OUTPUT
*&-----*
* Setting the GUI status
*-----*
MODULE set_status OUTPUT.
  SET PF-STATUS 'ZSTATUS'.
  SET TITLEBAR 'ZTITLE'.

```

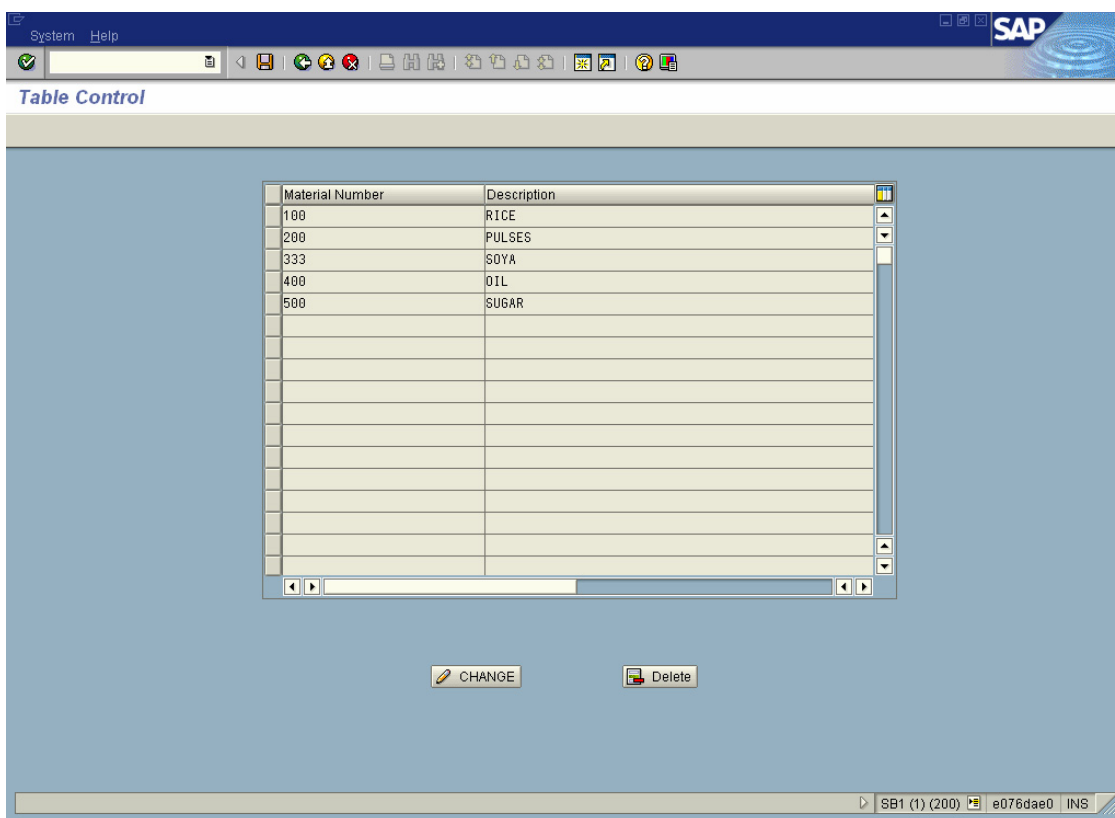
```
ENDMODULE.                                " set_status  OUTPUT

*&-----
*&      Module  CHECK  INPUT
*&-----
* Modify the internal table using the current line in table control
*-----

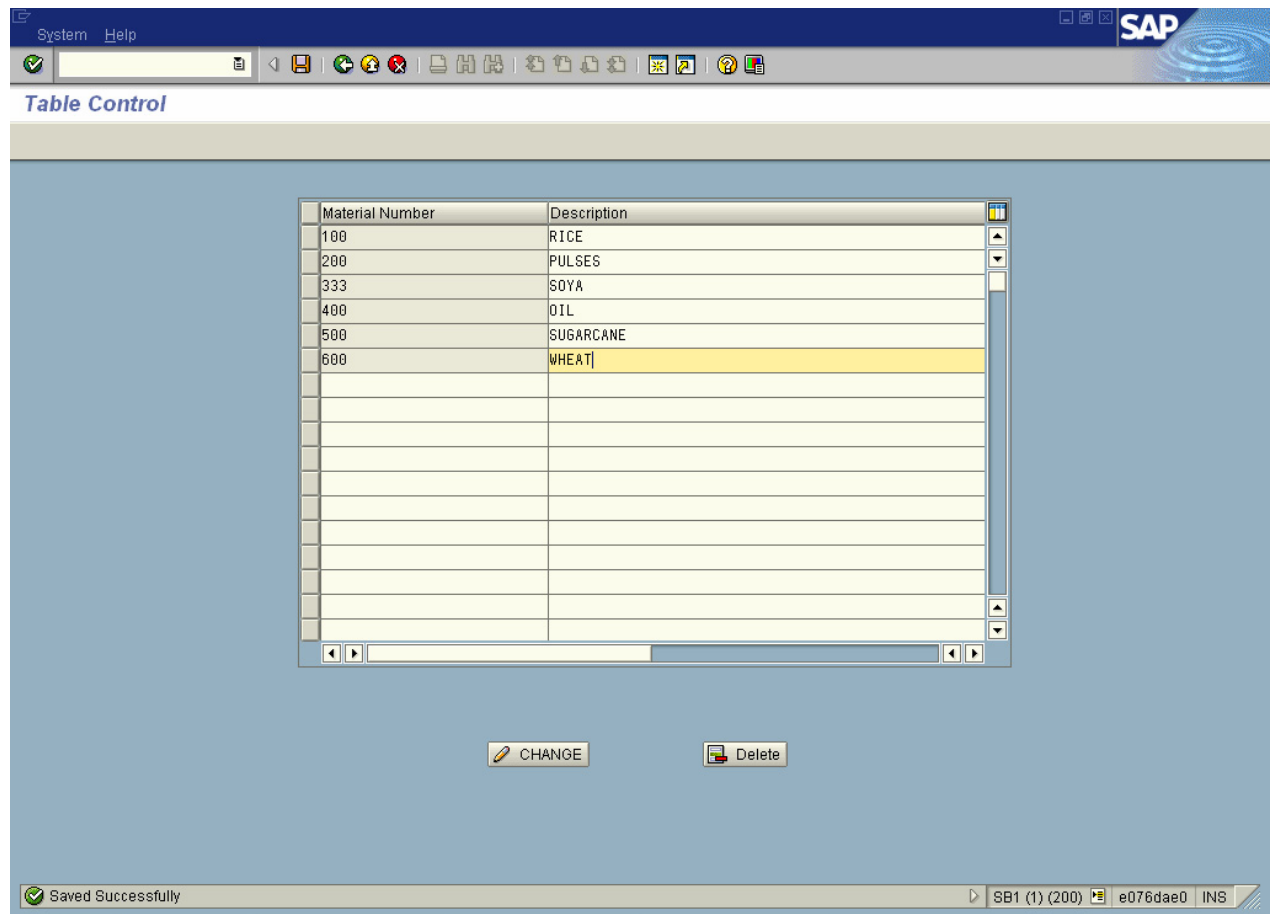
MODULE check INPUT.
    MODIFY i_makt INDEX t_ctrl-current_line.
ENDMODULE.                                " CHECK  INPUT
```

## Output Screens

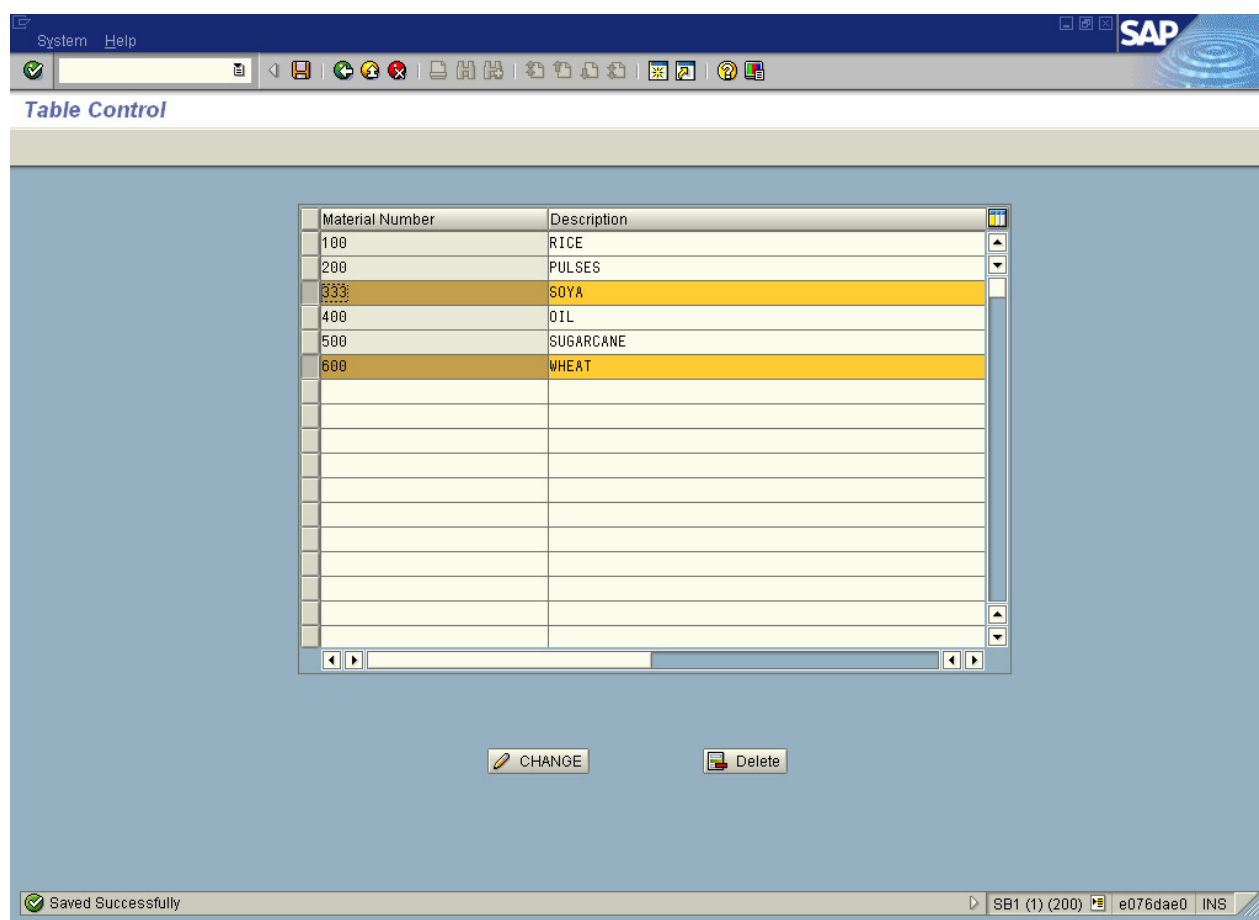
Enter the transaction code ZTC.



[illegible]



Then select records to be deleted from database. Then click the 'Delete' button. After confirmation it will delete those records from the database.



[illegible]

This document may discuss sample coding, which does not include official interfaces and therefore is not supported. Changes made based on this information are not supported and can be overwritten during an upgrade.

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### Author Bio



Working as Project Engineer in Wipro Technologies .

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