

COLLEGE MANAGEMENT SYSTEM USING SAP ABAP



A PROJECT REPORT
(SAP ABAP WORK BENCH FUNDAMENTALS - 40 SAT 01)

Submitted by

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*In partial fulfillment of the requirement
For the award of the degree*

Of

BACHELOR OF ENGINEERING

K.S.RANGASAMY COLLEGE OF TECHNOLOGY

TIRUCHENGODE – 637215

(An Autonomous Institution, Affiliated to Anna University Chennai and Approved by AICTE, New Delhi)

OCTOBER 2018

BONAFIDE CERTIFICATE

Certified that this Project report titled "**COLLEGE MANAGEMENT SYSTEM USING SAP**" is the bonafide work of **M RAJIK AHAMED (1614175)**, **AND NAVEEN KUMAR B (1614158)** who carried out the project under my supervision. Certified further, that to the best of my knowledge the work reported herein does not form part of any other project report or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

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Submitted for the viva-voce examination held on

Internal Examiner

DECLARATION

Certified that this Project report titled "**COLLEGE MANAGEMENT SYSTEM USING SAP**" is the bonafide work of **M RAJIK AHAMED (1614175), and B NAVEEN KUMAR ()** who carried out the project under my supervision. Certified further, that to the best of my knowledge the work reported herein does not form part of any other project report or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

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Date:

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ABSTRACT

College management is an integrated web application to handle various academic and non-academic activities of college. The system can access by every student, faculties, and employees of the institution through internet connected computers. This system provides the detail structure of the college campus and its departments. College Management System synchronizes the working of all the departments. It looks on all aspects of a college, its students, faculties, Departments, marks and other co 'curricular activities'. MS is the easiest way to manage all functionalities of a college. College Management Software is a simple yet powerful one joint integrated platform that connects all the various departments of an institutionalize administration, attendance, Staff details and many more specialized modules.

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SYSTEM ARCHITECTURE

SAP Campus Management is designed to support the management of teaching and studies in general, and the progress of each individual student. The application is flexible to adapt to changing institutional needs and new technology, while supporting the traditional core processes of the student life cycle.

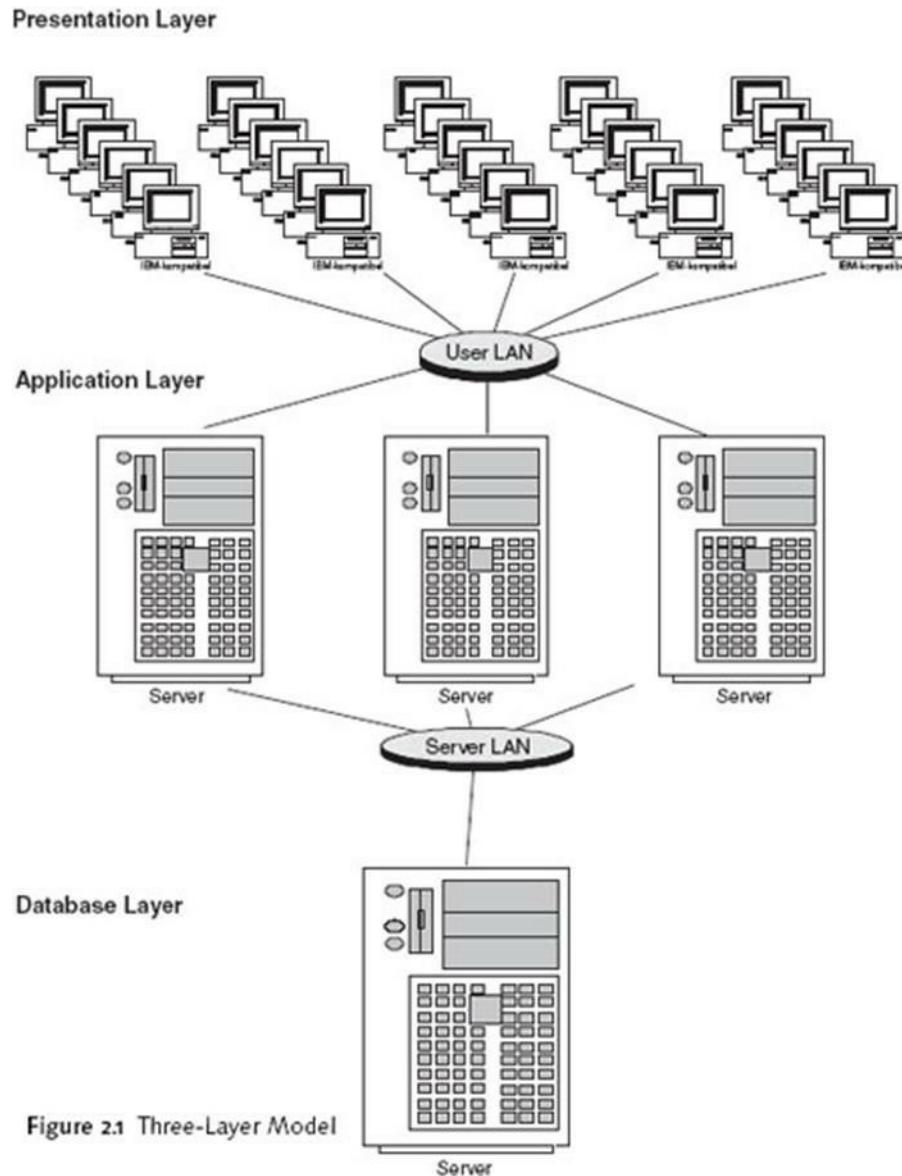


Figure1: SYSTEM ARCHITECTURE

1.2. MODULUS

1.2.1. Steps to create database table:

Step 1 - Enter new table name

Using transaction SE11, ensure the "Database table" radio button is selected and enter a name for your new table into the input box. For this example I am going to create a table called ZCOLLEGE.

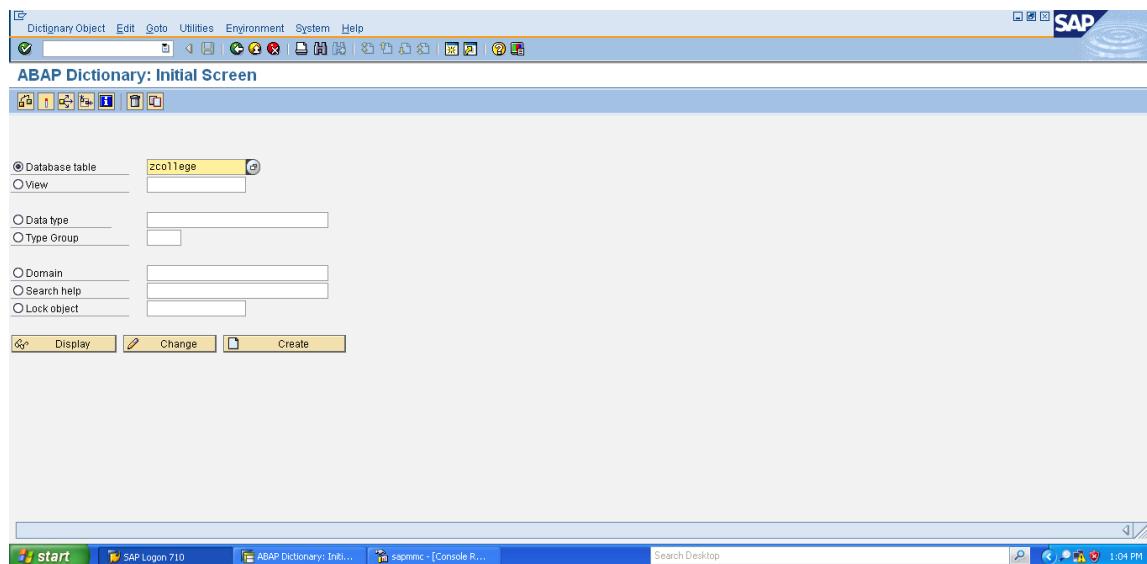


Figure2: Database table

Step 2 - Enter basic details

With the 'Delivery and Maintenance' tab enter a short description, set delivery class to A and choose Display/Maintenance Allowed for the 'Data Browser' option. See table settings for more details about these options and their effects on the table.

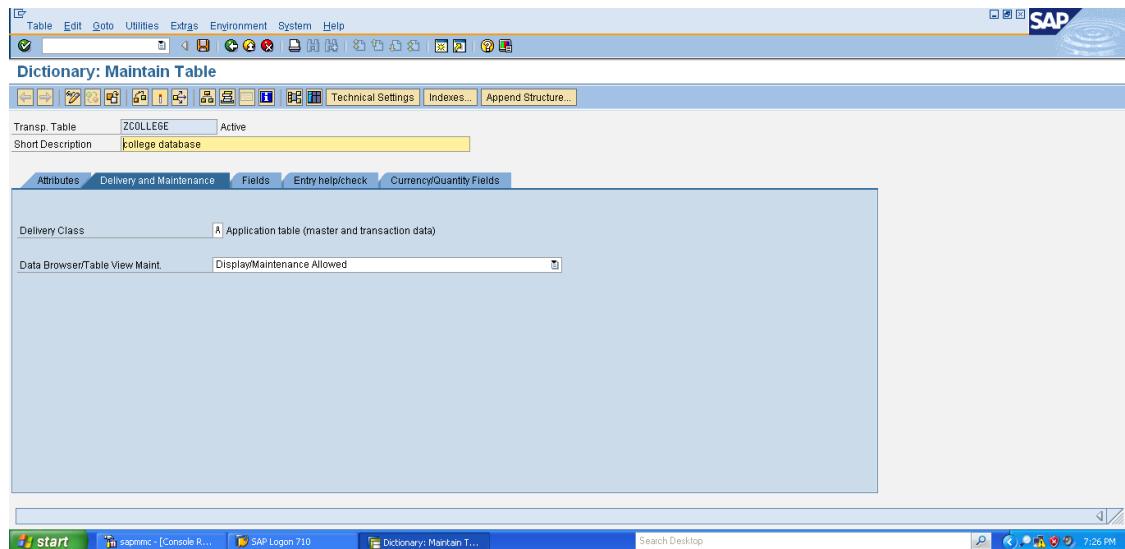
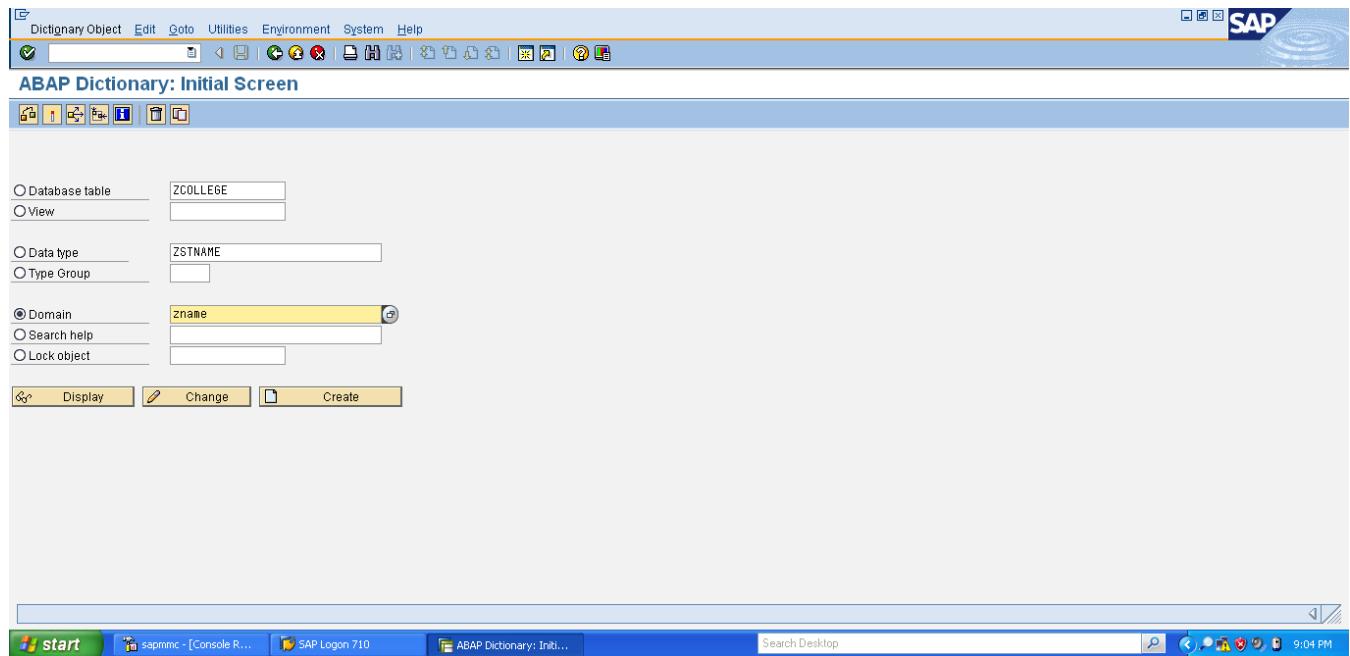


Figure3: basic system

Step 3 –create Domains

Now go to domain tab. Create domains such as zname .similarly create domains needed for the database table.

Finally, save and Activate the domains.



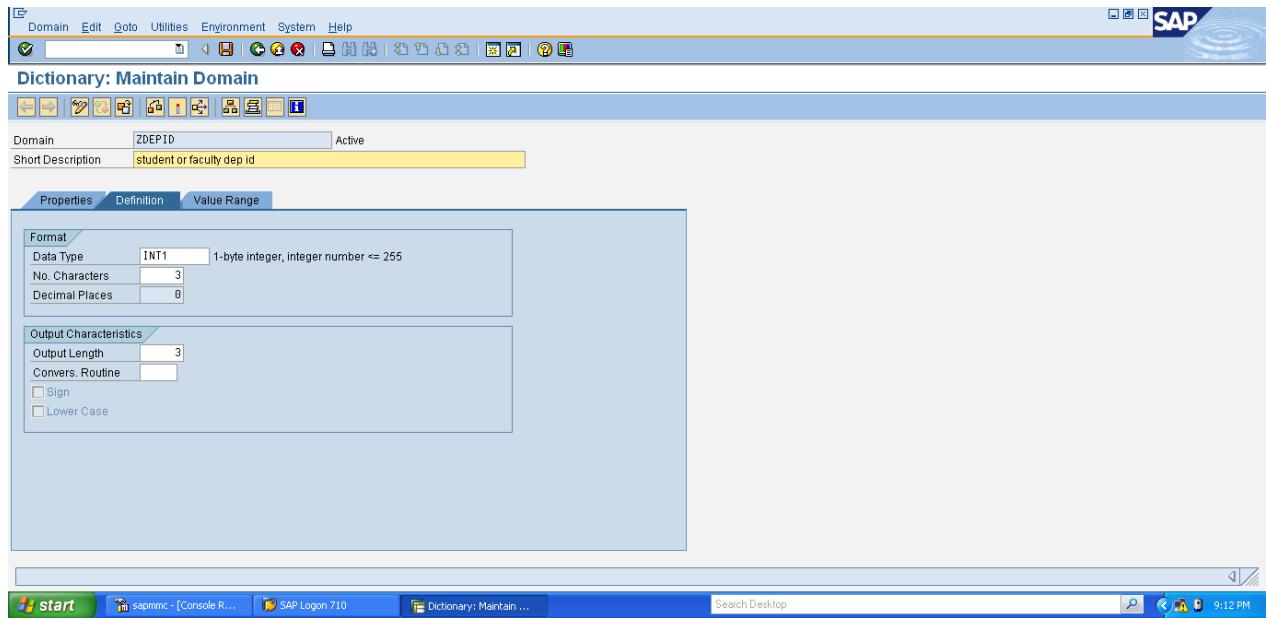
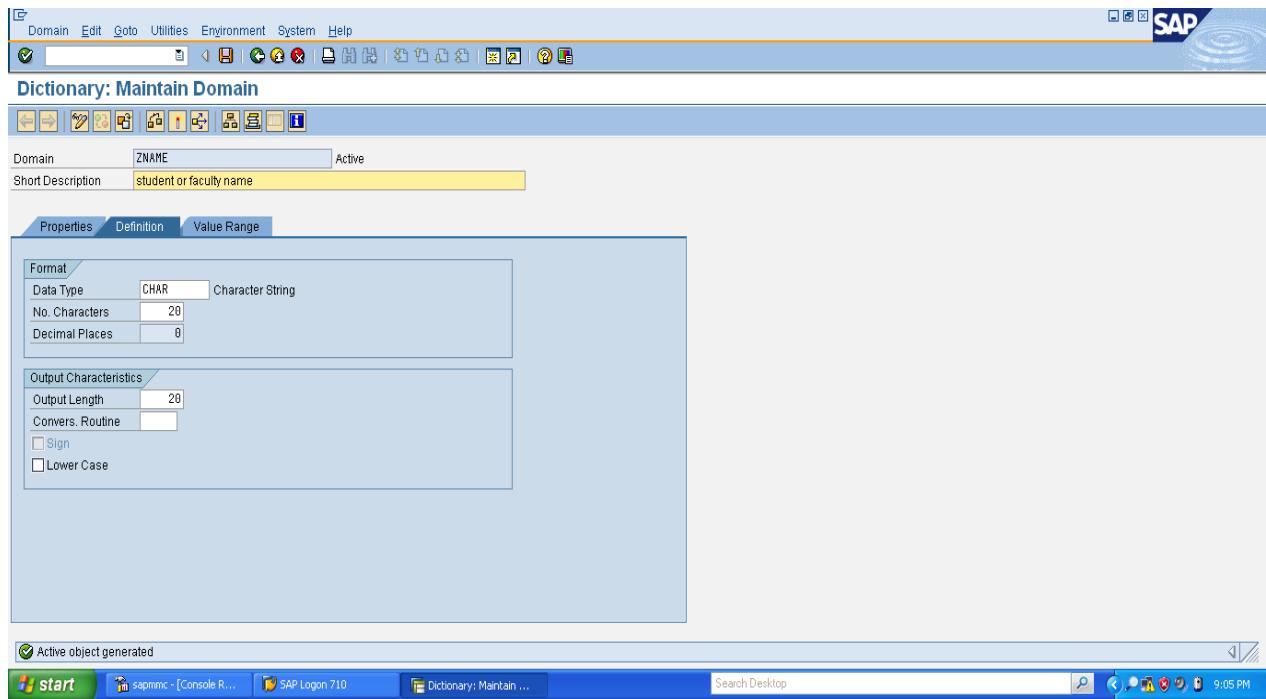


Figure4: create domain

Step 4 - Enter field names

Now go to the fields tab and add some fields such as **zstname**. Similarly create more fields for the database table.

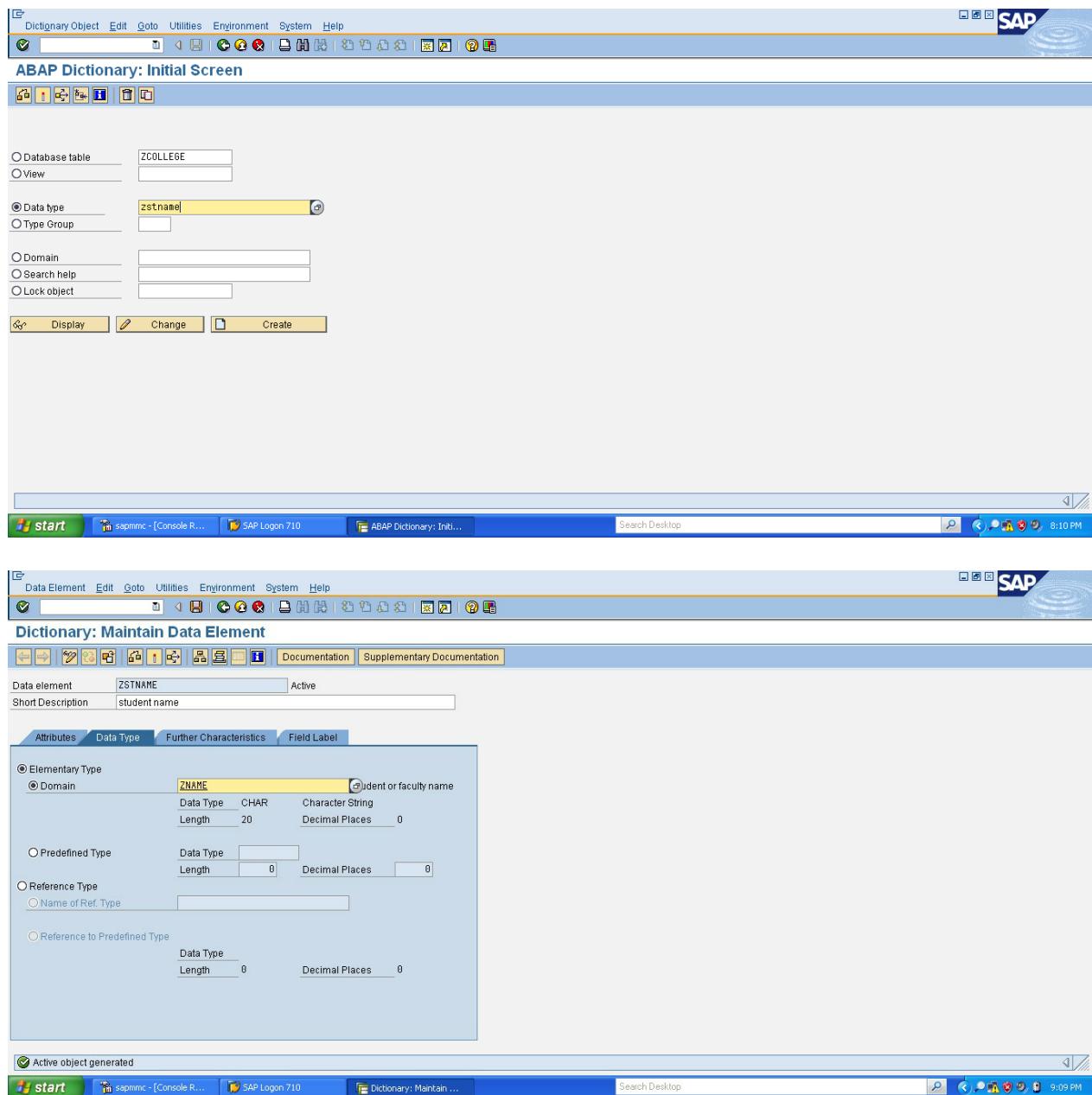


Figure5: enter field names

Step 5 - Enter technical settings

Before you can activate your new table you need to maintain the technical settings to define the type and size of data being stored. To do this first Click on the

Go to->Technical Settings option
on the next screen enter the data class as 'APPL0' and the size as '0'.

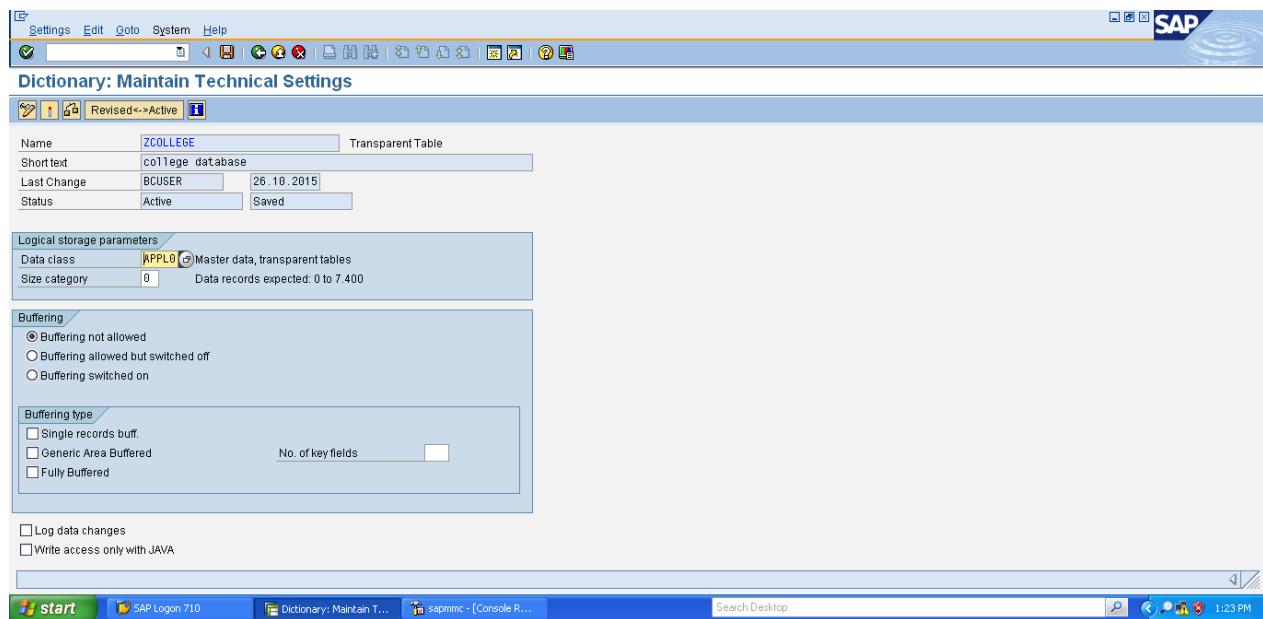
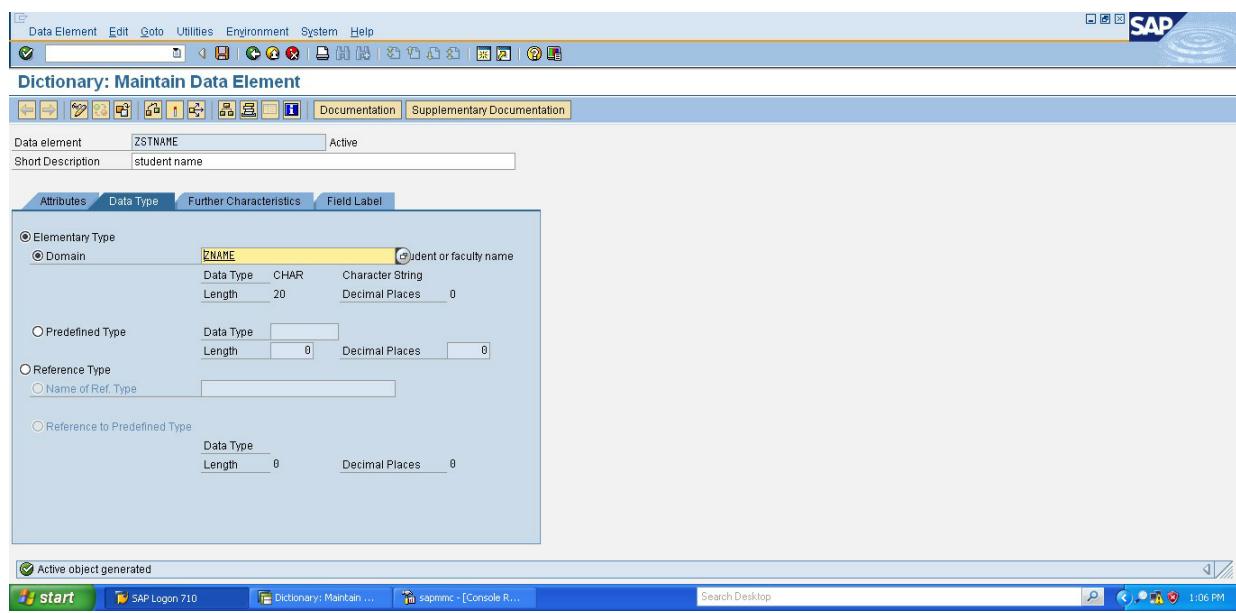


Figure6: Enter technical settings

Step 6 - SAVE, Activate and your done

Right that's it, simply save and activate your table and its ready to use.



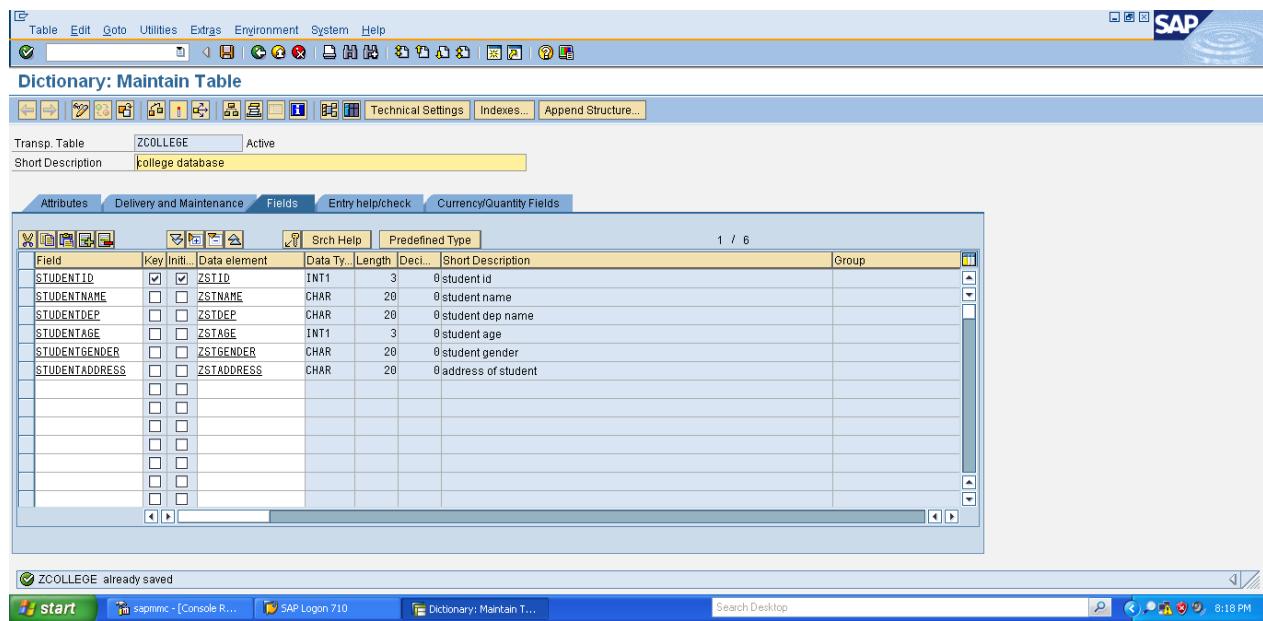
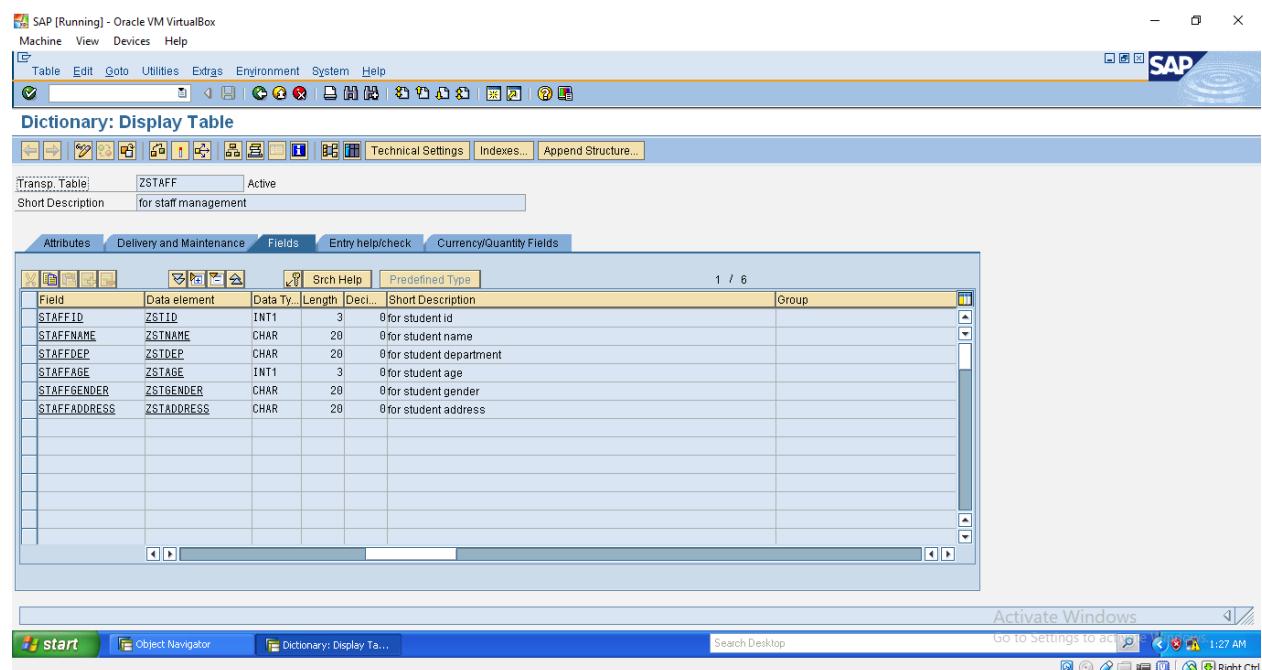
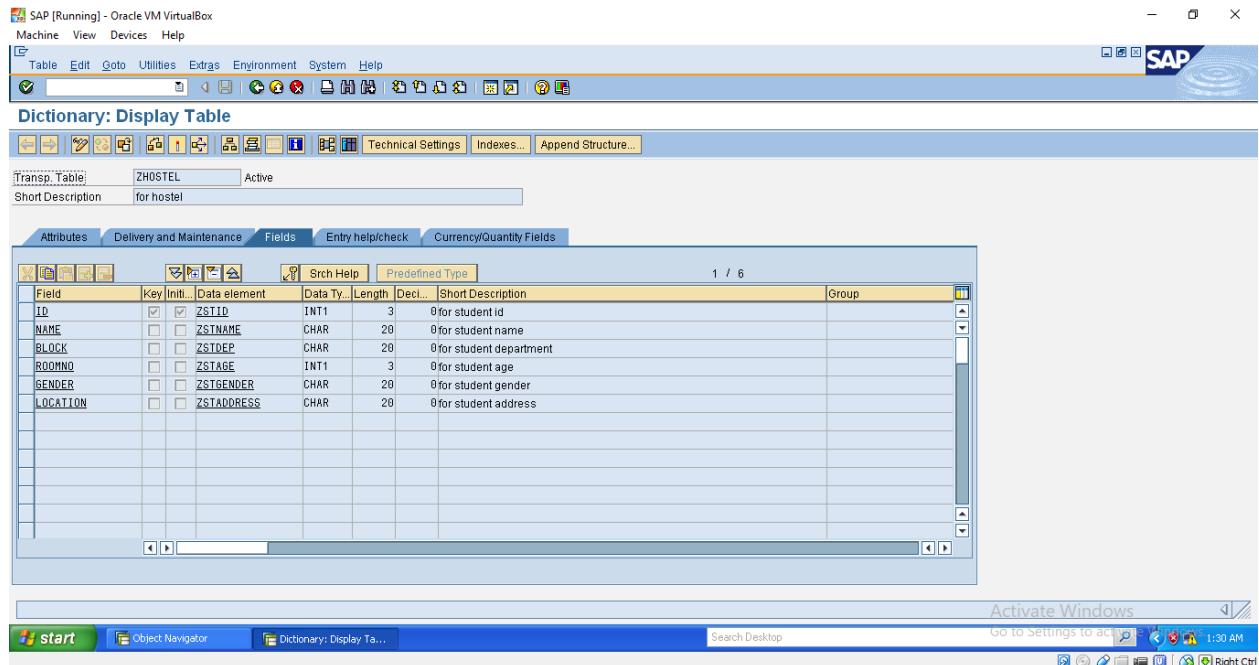


Figure7: SAVE, Activate and your done

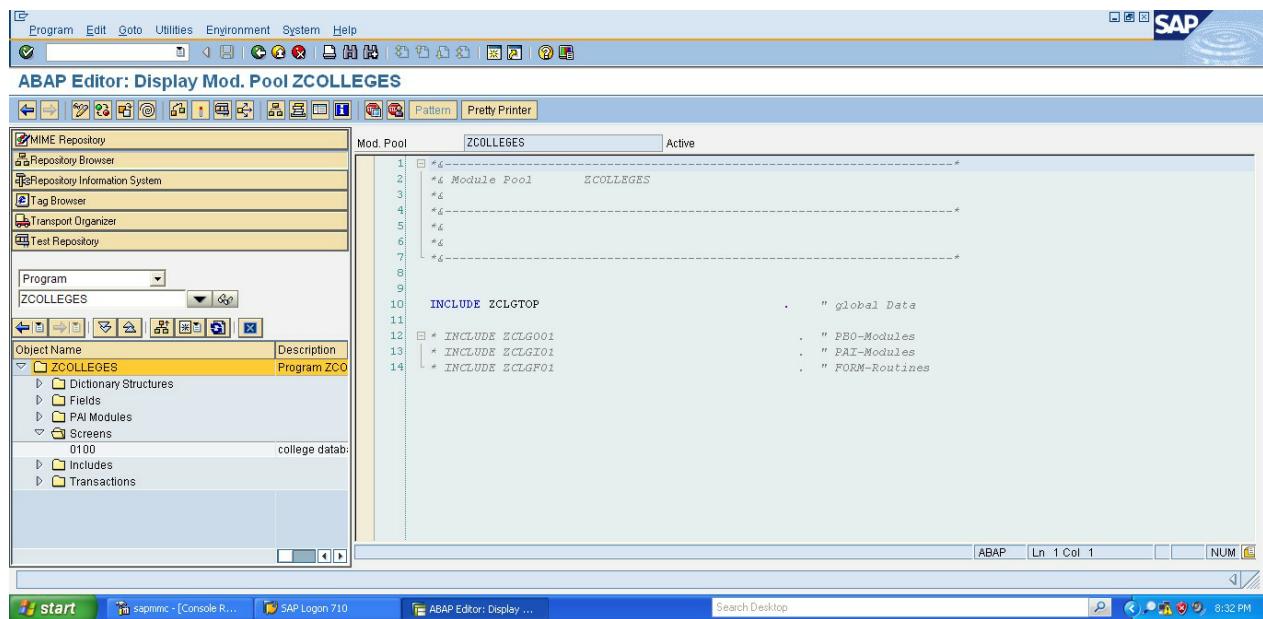




1.2.2. STEPS FOR SCREEN DESIGNING

Step1-CreateNewdialogProgram

Within transaction SE80 select program from the dropdown and enter a Z name for your custom SAP program (i.e. ZCOLLEGES). Now press enter, select "With TOP INCL." and press the Yes button Enter a name for your top include (i.e. ZCLGTOP) and press the green tick Within the attributes screen simply enter a title and press the save button



The screenshot shows the SAP ABAP Editor interface. The title bar reads "ABAP Editor: Display Mod. Pool ZCOLLEGES". The main area displays the ABAP code for the module pool ZCOLLEGES:

```

1  *-> Module Pool      ZCOLLEGES
2
3
4
5
6
7
8
9
10 INCLUDE ZCLGTOP          .   " global Data
11
12  * INCLUDE ZCLG001        .   " PBO-Modules
13  * INCLUDE ZCLG101        .   " PAI-Modules
14  * INCLUDE ZCLGF01        .   " FORM-Routines

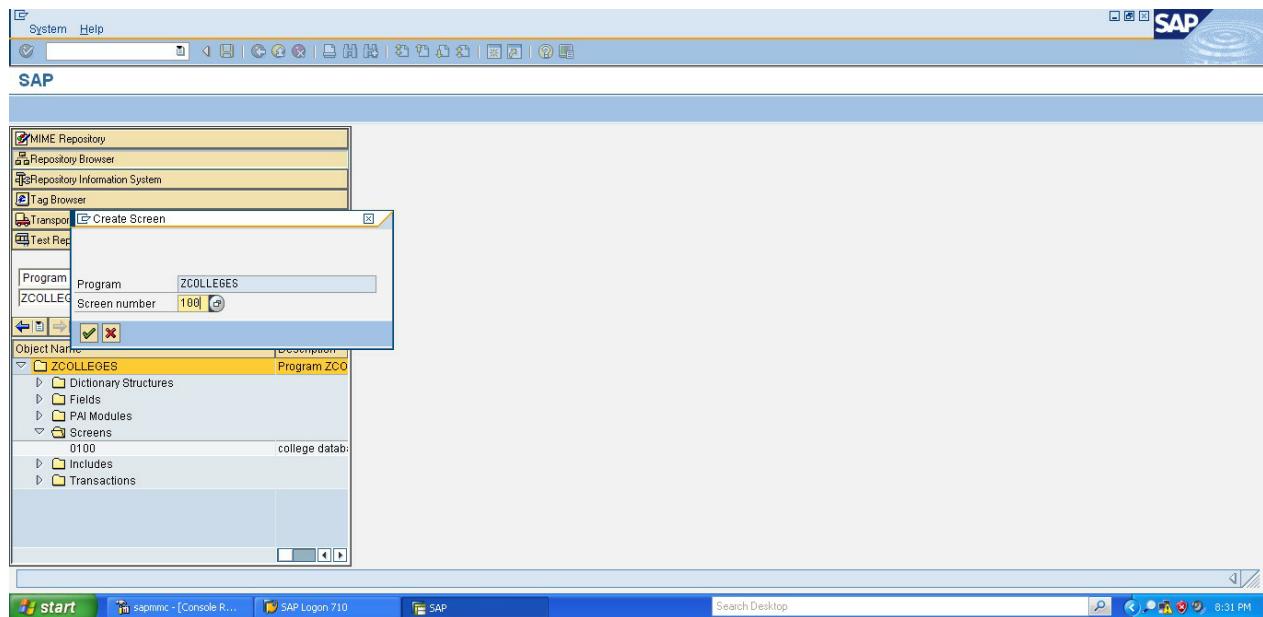
```

The left side features a navigation tree under "Program" for "ZCOLLEGES", showing objects like Dictionary Structures, Fields, PAI Modules, Screens (with "0100" selected), Includes, and Transactions.

Step 2 - Add a screen to your dialog program

You now need to add a screen to your program by right clicking on the program name and selecting the options Create->Screen

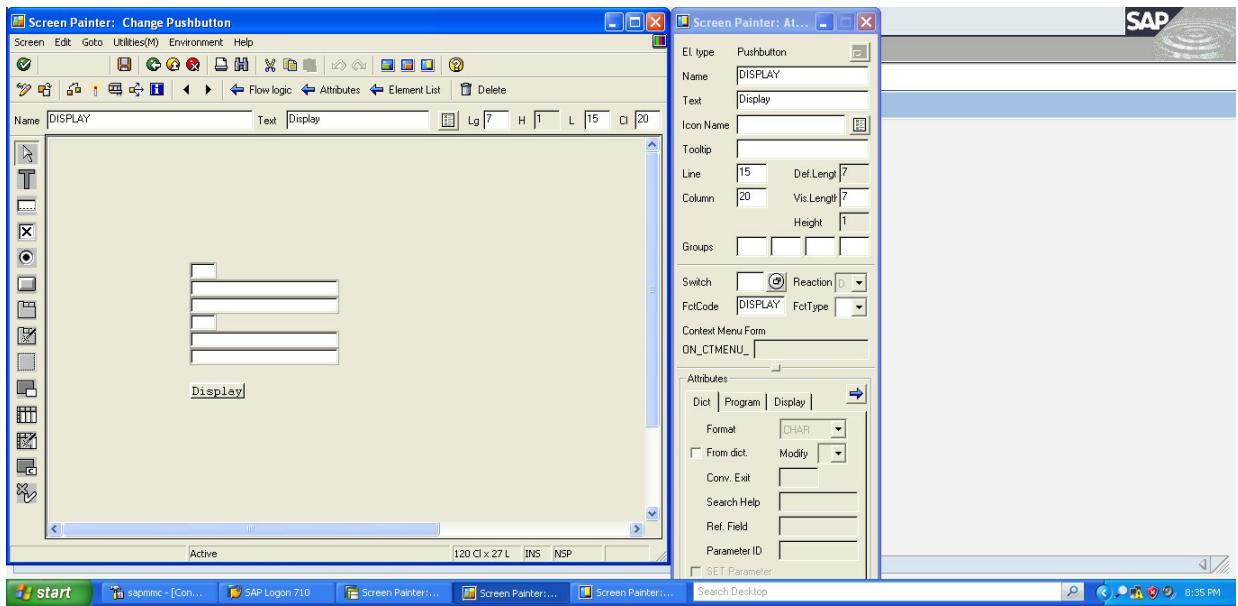
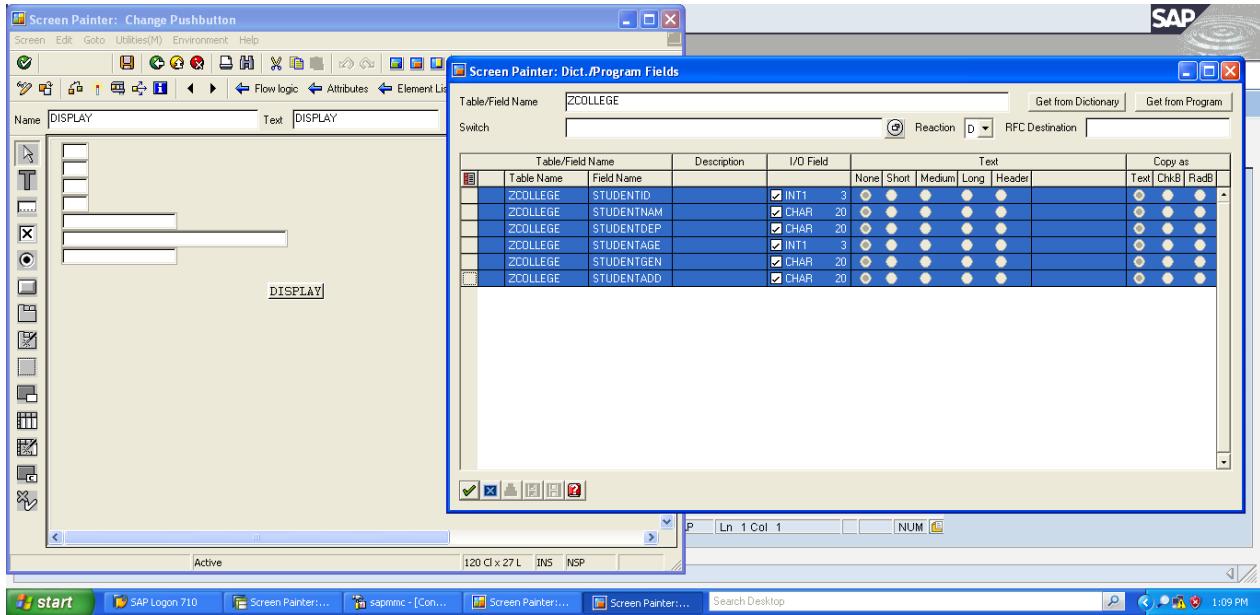
Enter a screen number such as '0100' and press the green tick



On the next screen enter a short title, set to normal screen type and press the save button on the top application toolbar!

Step 3 - Screen layout

Now click on the layout button within the application toolbar. Here we also need to create a PUSH BUTTON to display the contents of table.

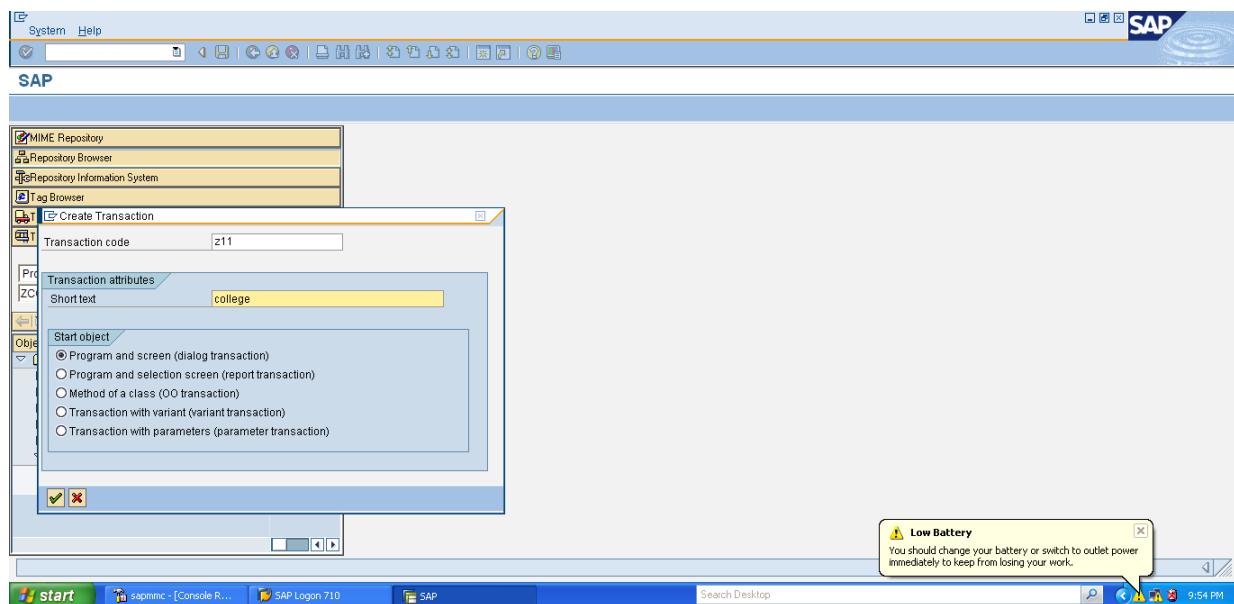


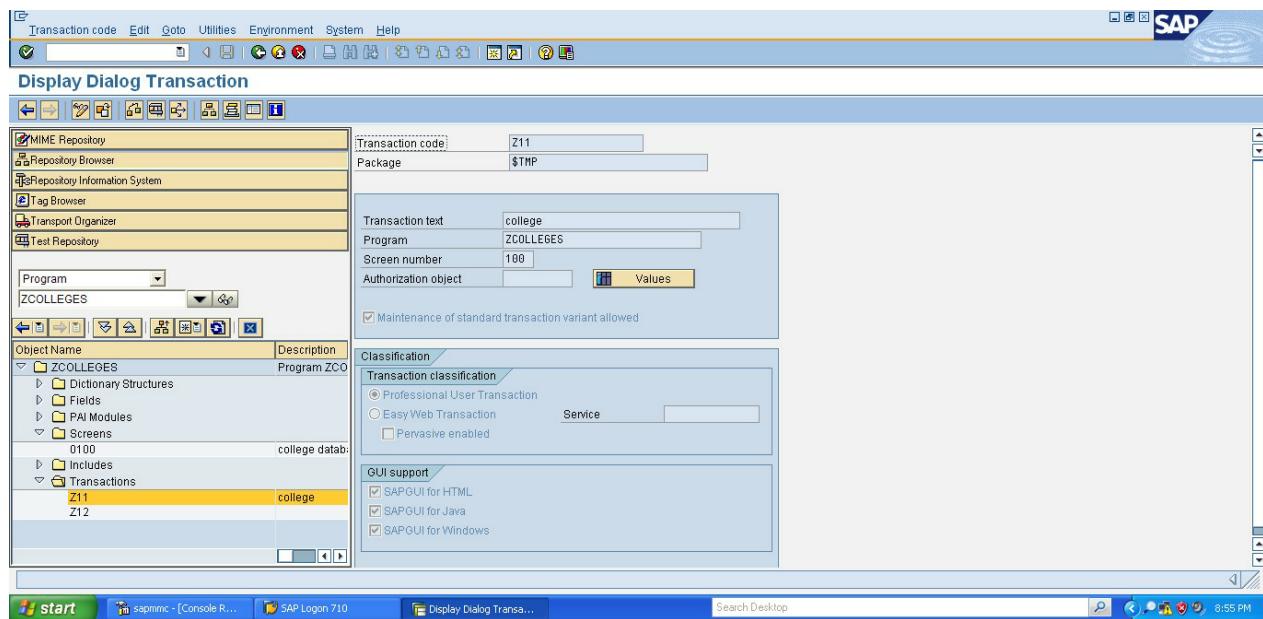
Step 4 - Create transaction

Next step is to create a transaction code for your program, to do this simply right click on the program name choose the option Create->Transcation

Enter a transaction code such as 'Z11'

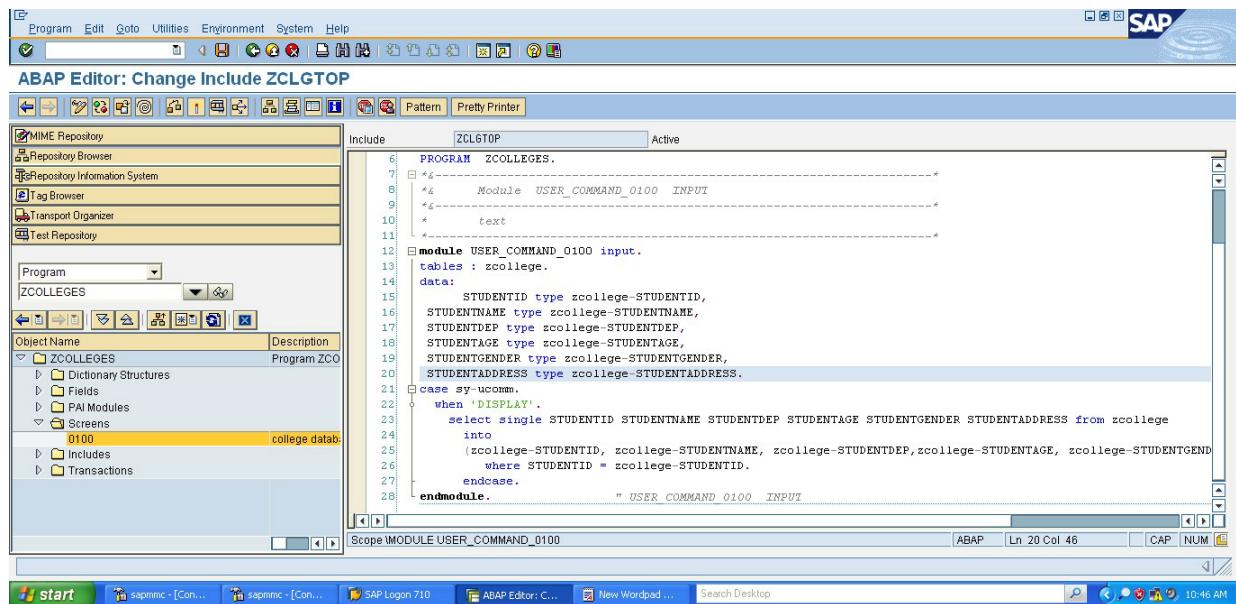
Enter transaction text, program / Screen you have just created (i.e. ZCOLLEGES / 0100) and tick at least the SAPGUI for Windows checkbox.





Step 5 - Test

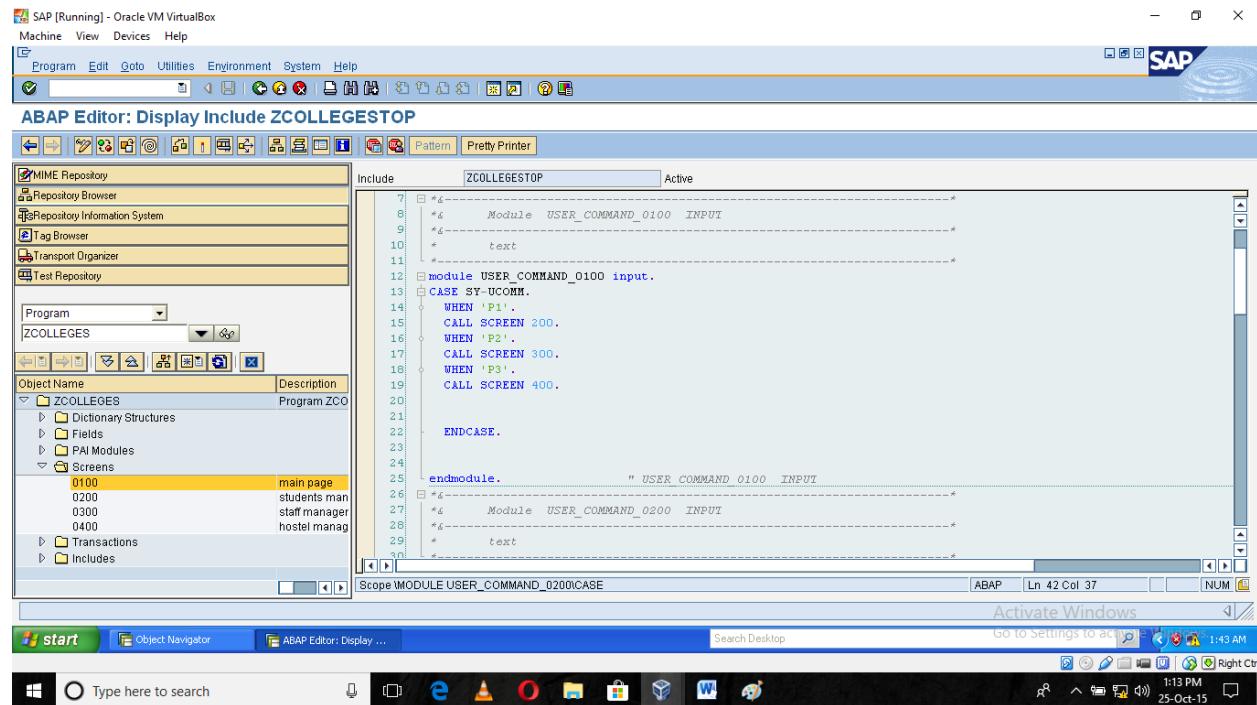
First Save and activate everything. You can now execute the program by using the transaction code you have just created. note the /o at the begining executes the transaction in a new session. Your program should then be executed and the text you entered displayed onscreen.



Coding :

V

In this project we create four screens , for each screen we need to add the codings

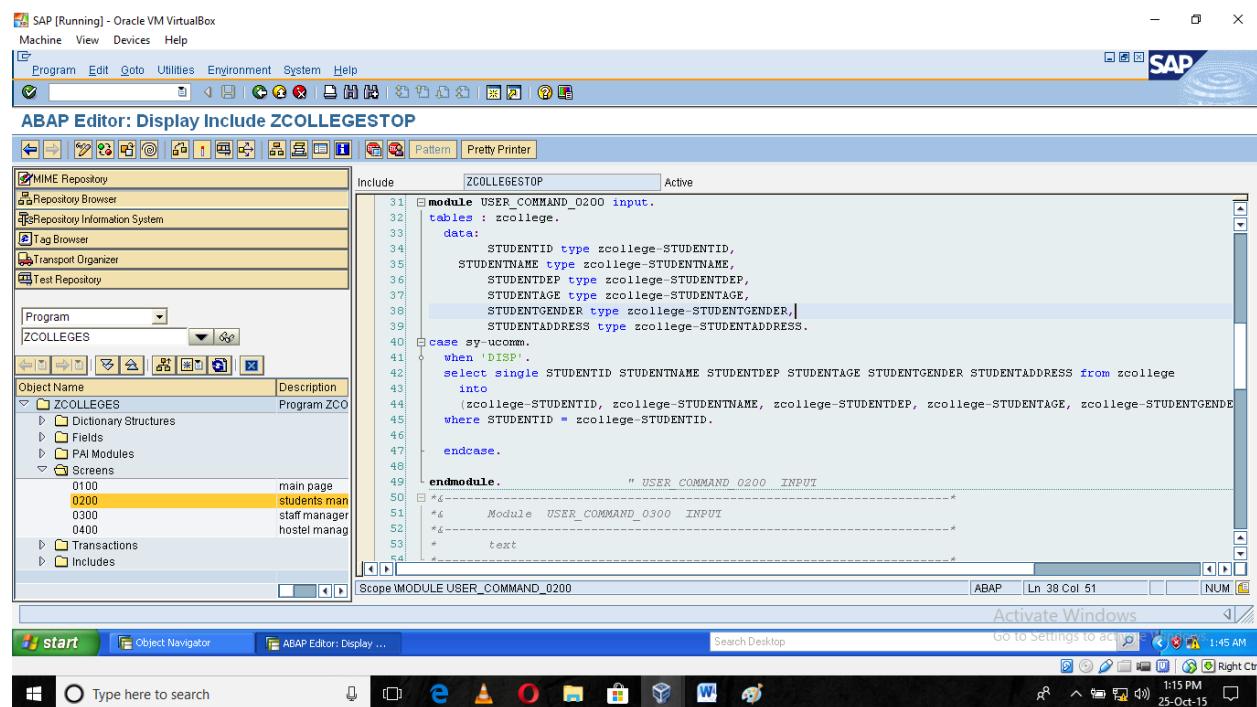


The screenshot shows the SAP ABAP Editor interface. The title bar reads "SAP [Running] - Oracle VM VirtualBox". The menu bar includes "Program", "Edit", "Goto", "Utilities", "Environment", "System", and "Help". The toolbar has various icons for file operations. The ABAP Editor tab is active, displaying the code for the "ZCOLLEGESTOP" include. The code defines two modules: "USER_COMMAND_0100" and "USER_COMMAND_0200". The "USER_COMMAND_0100" module contains a CASE statement based on SY-UCOMM values P1, P2, and P3, which call screens 200, 300, and 400 respectively. The "USER_COMMAND_0200" module is currently empty. The status bar at the bottom right shows "ABAP Ln 42 Col 37". The system bar at the bottom indicates it's 1:43 PM on 25-Oct-15.

```
Module USER_COMMAND_0100 INPUT
  * text
  CASE SY-UCOMM.
    WHEN 'P1'.
      CALL SCREEN 200.
    WHEN 'P2'.
      CALL SCREEN 300.
    WHEN 'P3'.
      CALL SCREEN 400.
  ENDCASE.

  " USER COMMAND 0100 INPUT

Module USER_COMMAND_0200 INPUT
  * text
```



This screenshot shows the same SAP ABAP Editor environment as the previous one, but with additional code added to the "USER_COMMAND_0200" module. The code defines several data types: STUDENTID, STUDENTNAME, STUDENTDEP, STUDENTAGE, STUDENTGENDER, and STUDENTADDRESS, all of type zcollege-STUDENT. It then defines a CASE statement for SY-UCOMM value 'DISP', which performs a SELECT operation to retrieve STUDENTID, STUDENTNAME, STUDENTDEP, STUDENTAGE, STUDENTGENDER, and STUDENTADDRESS from the zcollege table. The WHERE clause ensures STUDENTID matches zcollege-STUDENTID. The status bar at the bottom right shows "ABAP Ln 38 Col 51". The system bar at the bottom indicates it's 1:45 AM on 25-Oct-15.

```
Module USER_COMMAND_0200 INPUT
  tables : zcollege.
  data:
    STUDENTID type zcollege-STUDENTID,
    STUDENTNAME type zcollege-STUDENTNAME,
    STUDENTDEP type zcollege-STUDENTDEP,
    STUDENTAGE type zcollege-STUDENTAGE,
    STUDENTGENDER type zcollege-STUDENTGENDER,
    STUDENTADDRESS type zcollege-STUDENTADDRESS.

  case sy-ucomm.
    when 'DISP'.
      select single STUDENTID STUDENTNAME STUDENTDEP STUDENTAGE STUDENTGENDER STUDENTADDRESS from zcollege
        into
          (zcollege-STUDENTID, zcollege-STUDENTNAME, zcollege-STUDENTDEP, zcollege-STUDENTAGE, zcollege-STUDENTGENDER)
        where STUDENTID = zcollege-STUDENTID.
  endcase.

  " USER COMMAND 0200 INPUT

Module USER_COMMAND_0300 INPUT
  * text
```

SAP [Running] - Oracle VM VirtualBox

Machine View Devices Help

Program Edit Goto Utilities Environment System Help

ABAP Editor: Display Include ZCOLLEGESTOP

MIME Repository Repository Browser Repository Information System Tag Browser Transport Organizer Test Repository

Program ZCOLLEGES

Object Name Description

ZCOLLEGES

- Dictionary Structures
- Fields
- PAI Modules
- Screens
 - 0100 main page
 - 0200 students man
 - 0300 staff manager**
 - 0400 hostel manag
- Transactions
- Includes

Include ZCOLLEGESTOP Active

```

58: tables : zstaff.
59: data:
60:   STAFFID type zstaff-STAFFID,
61:   STAFFNAME type zstaff-STAFFNAME,
62:   STAFFDEP type zstaff-STAFFDEP,
63:   STAFFAGE type zstaff-STAFFAGE,
64:   STAFFGENDER type zstaff-STAFFGENDER,
65:   STAFFADDRESS type zstaff-STAFFADDRESS.
66: case sy-ucomm.
67: when 'DISP'.
68:   select single STAFFID STAFFNAME STAFFDEP STAFFAGE STAFFGENDER STAFFADDRESS from zstaff
69:   into
70:   (zstaff-STAFFID, zstaff-STAFFNAME, zstaff-STAFFDEP, zstaff-STAFFAGE, zstaff-STAFFGENDER, zstaff-STAFFADDRESS
71:   where STAFFID = zstaff-STAFFID.
72: endcase.
73:
74: endmodule.          " USER_COMMAND_0300  INPUT
75:
76: #*-- Module USER_COMMAND_0400  INPUT
77: #*-- text
78:
79: #*-- module USER_COMMAND_0400 input.
80:
81:
```

Scope MODULE USER_COMMAND_0200(CASE) ABAP Ln 42 Col 55 NUM

Activate Windows Go to Settings to ac 1:46 AM

start Object Navigator ABAP Editor: Display ... Search Desktop

Type here to search 1:16 PM 25-Oct-15

SAP [Running] - Oracle VM VirtualBox

Machine View Devices Help

Program Edit Goto Utilities Environment System Help

ABAP Editor: Display Include ZCOLLEGESTOP

MIME Repository Repository Browser Repository Information System Tag Browser Transport Organizer Test Repository

Program ZCOLLEGES

Object Name Description

ZCOLLEGES

- Dictionary Structures
- Fields
- PAI Modules
- Screens
 - 0100 main page
 - 0200 students man
 - 0300 staff manager
 - 0400 hostel manag**
- Transactions
- Includes

Include ZCOLLEGESTOP Active

```

82: tables : zhostel.
83: data:
84:   ID type zhostel-ID,
85:   NAME type zhostel-NAME,
86:   BLOCK type zhostel-BLOCK,
87:   ROOMNO type zhostel-ROOMNO,
88:   GENDER type zhostel-GENDER,
89:   LOCATION type zhostel-LOCATION.
90:
91: case sy-ucomm.
92: when 'DISP'.
93:   select single ID NAME BLOCK ROOMNO GENDER LOCATION from zhostel
94:   into
95:   (zhostel-ID, zhostel-NAME, zhostel-BLOCK, zhostel-ROOMNO, zhostel-GENDER, zhostel-LOCATION)
96:   where ID = zhostel-ID.
97:
98: endcase.
99:
100: endmodule.          " USER_COMMAND_0400  INPUT
```

Scope MODULE USER_COMMAND_0300 ABAP Ln 74 Col 19 NUM

Activate Windows Go to Settings to ac 1:47 AM

start Object Navigator ABAP Editor: Display ... Search Desktop

Type here to search 1:17 PM 25-Oct-15

1.2.3.DATA RETRIEVAL

The screenshot shows the SAP Dictionary: Display Table interface. The title bar says "Dictionary: Display Table". The menu bar includes "Table", "Edit", "Goto", "Utilities", "Extras", "Environment", "System", and "Help". The toolbar has various icons for navigation and search. The main area shows the "Fields" tab selected. A table lists fields for the "ZCOLLEGE" table:

Field	Key	Init...	Data element	Data Ty...	Length	Deci...	Short Description	Group
STUDENTID	<input checked="" type="checkbox"/>	ZSTID	ZSTNAME	INT1	3	0	studentId	
STUDENTNAME	<input type="checkbox"/>	ZSTNAME	ZSTNAME	CHAR	20	0	student name	
STUDENTDEP	<input type="checkbox"/>	ZSTDEP	ZSTDEP	CHAR	20	0	student dep name	
STUDENTAGE	<input type="checkbox"/>	ZSTAGE	ZSTAGE	INT1	3	0	student age	
STUDENTGENDER	<input type="checkbox"/>	ZSTGENDER	ZSTGENDER	CHAR	20	0	student gender	
STUDENTADDRESS	<input type="checkbox"/>	ZSTADDRESS	ZSTADDRESS	CHAR	20	0	address of student	

Below the table, there are buttons for "Attributes", "Delivery and Maintenance", "Fields", "Entry help/check", and "Currency/Quantity Fields". The status bar at the bottom shows the SAP logo, the date "10:39 AM", and other system information.

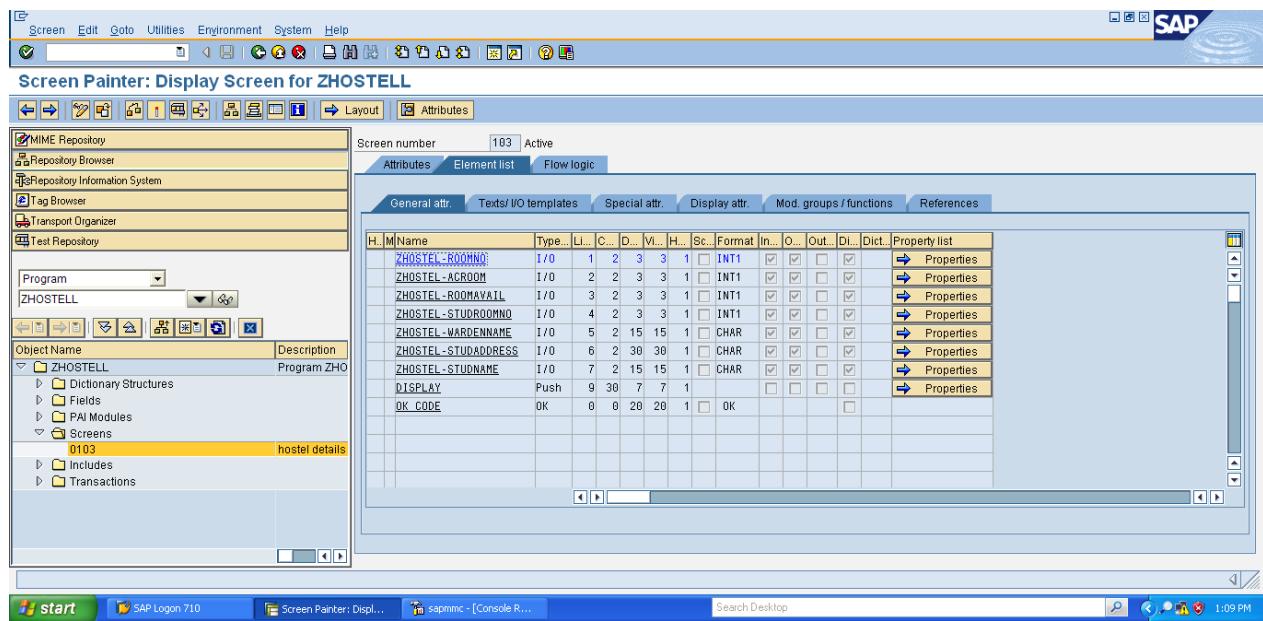
The screenshot shows the ABAP Editor: Display Include ZCLGTOP interface. The title bar says "ABAP Editor: Display Include ZCLGTOP". The menu bar includes "Program", "Edit", "Goto", "Utilities", "Environment", "System", and "Help". The toolbar has various icons for navigation and editing. The left sidebar shows the "MIME Repository" and the "Object Name" tree, which includes "ZCOLLEGES" and "0100". The main area displays the ABAP code for the include ZCLGTOP:

```

12 module USER_COMMAND_0100 input.
13   tables : zcollege.
14   data:
15     STUDENTID type zcollege-STUDENTID,
16     STUDENTNAME type zcollege-STUDENTNAME,
17     STUDENTDEP type zcollege-STUDENTDEP,
18     STUDENTAGE type zcollege-STUDENTAGE,
19     STUDENTGENDER type zcollege-STUDENTGENDER,
20     STUDENTADDRESS type zcollege-STUDENTADDRESS.
21   case sy-ucom.
22   when 'DISPLAY'.
23     select single STUDENTID STUDENTNAME STUDENTDEP STUDENTAGE STUDENTGENDER STUDENTADDRESS from zcollege
24     into
25     (zcollege-STUDENTID, zcollege-STUDENTNAME, zcollege-STUDENTDEP, zcollege-STUDENTAGE, zcollege-STUDENTGEND
26       where STUDENTID = zcollege-STUDENTID).
27   endcase.
28 endmodule.

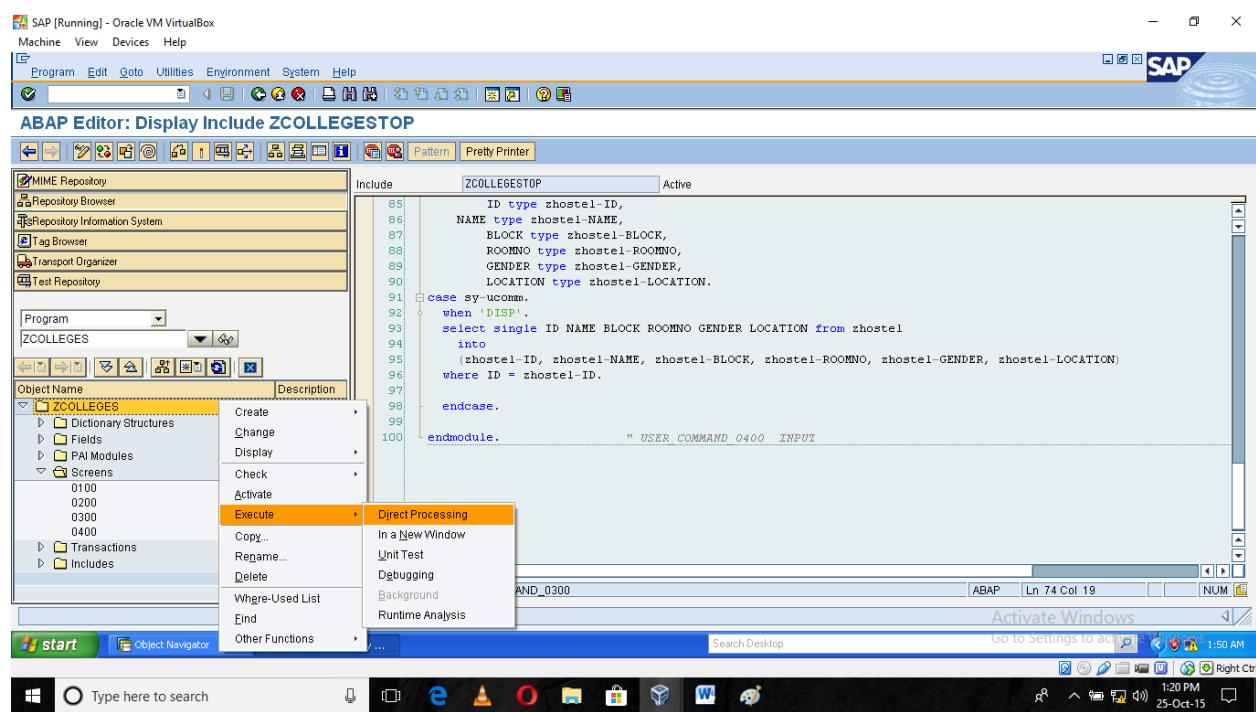
```

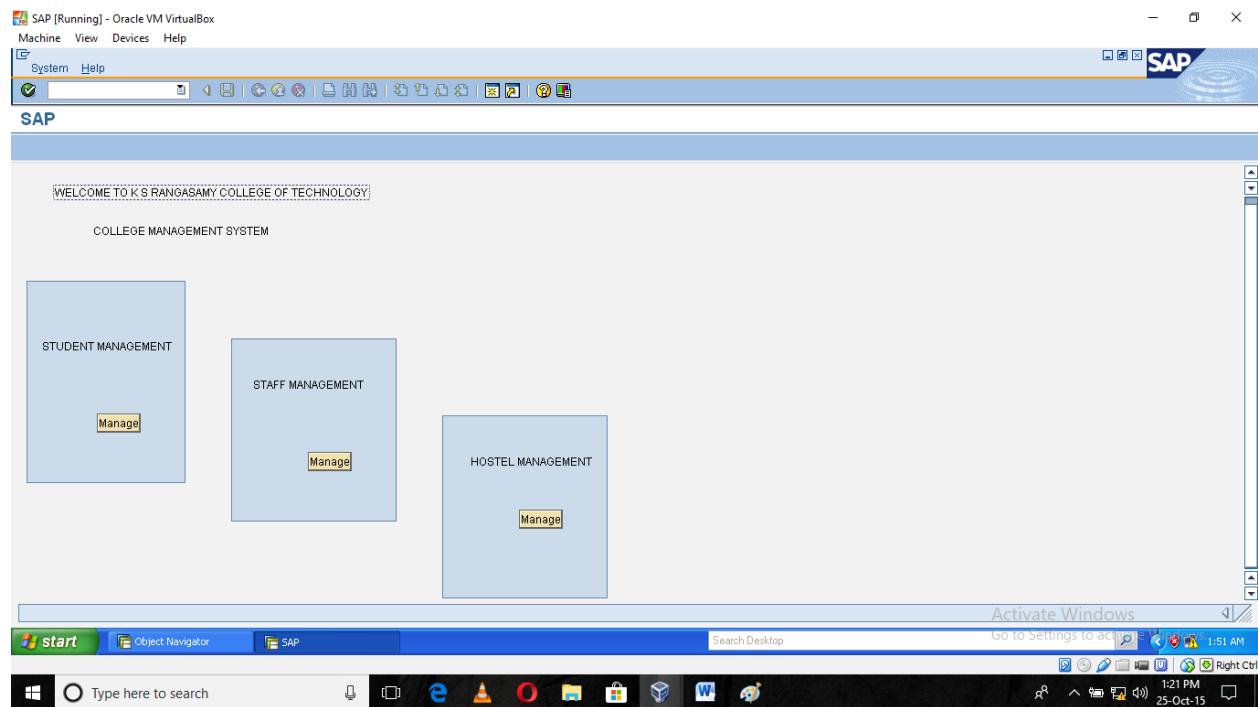
The status bar at the bottom shows the SAP logo, the date "9:55 PM", and other system information.



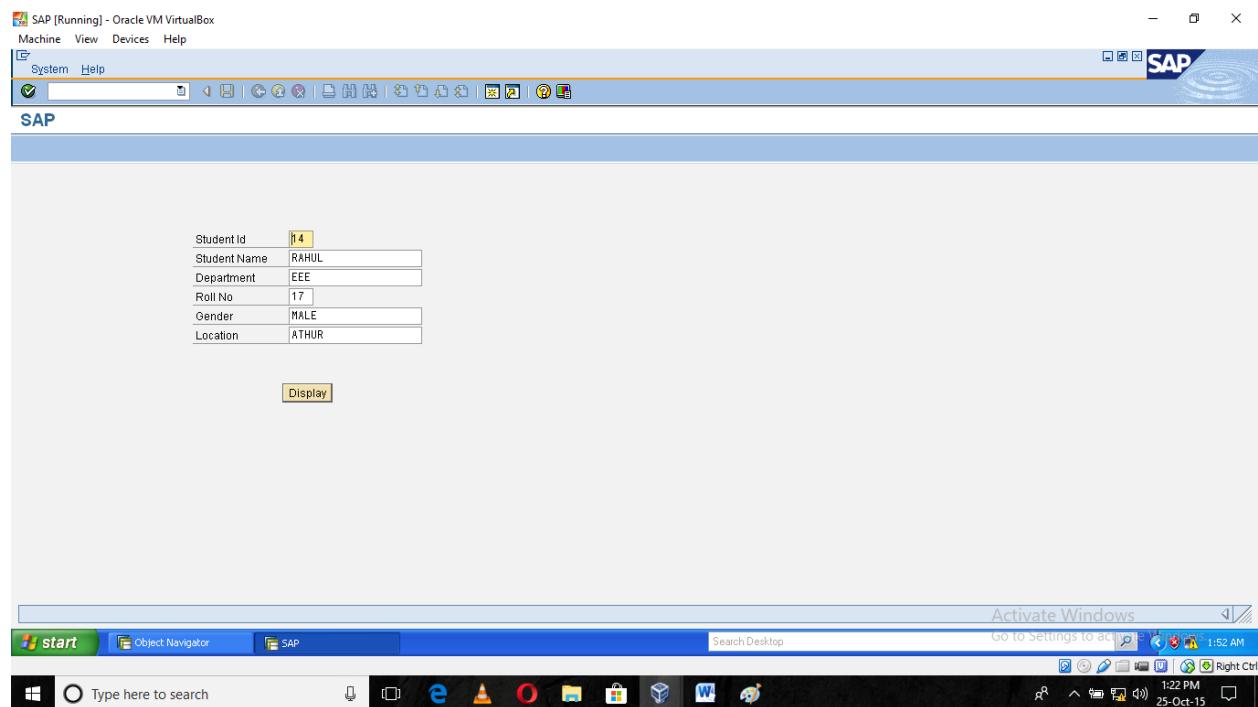
Output :

we can also execute the program by clicking execute and then direct processing

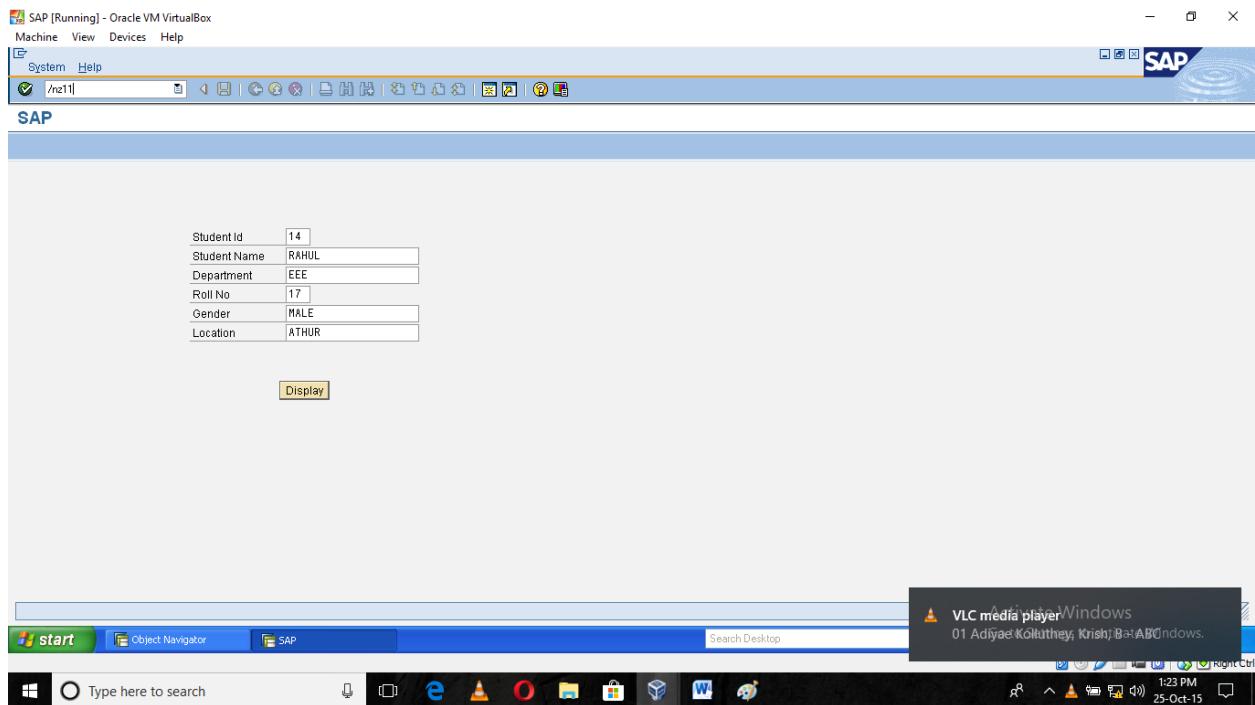




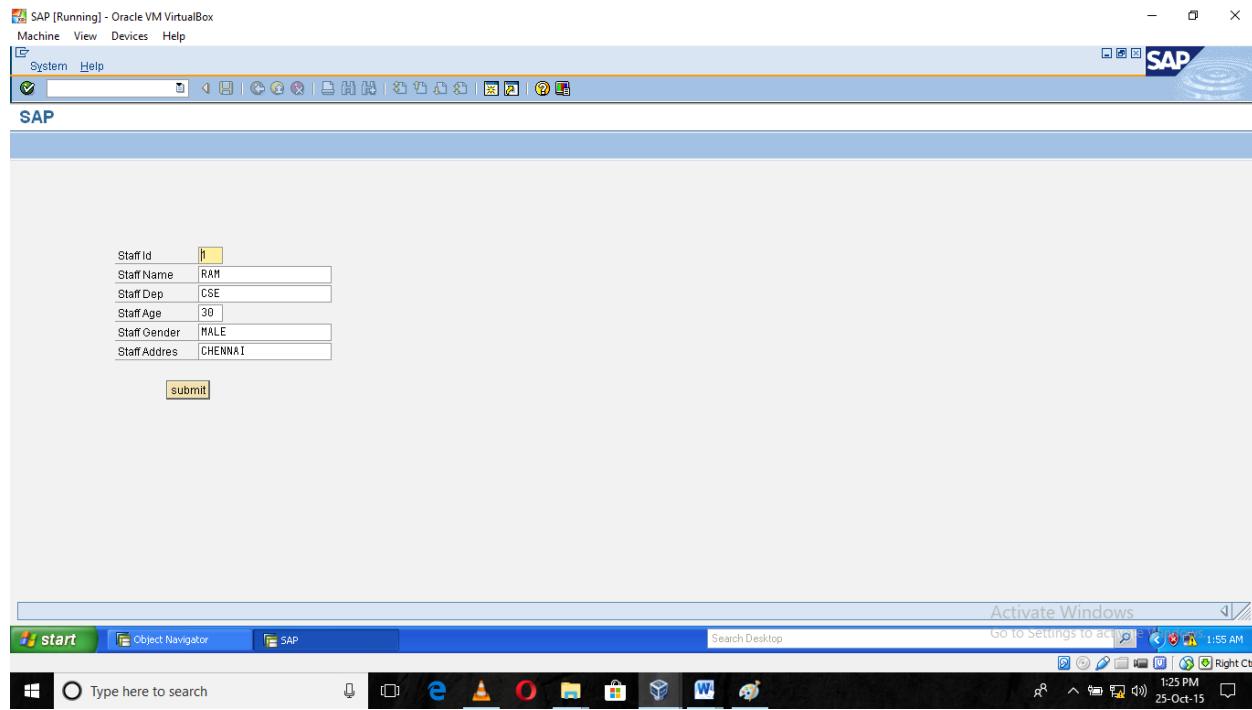
Screen 2 :



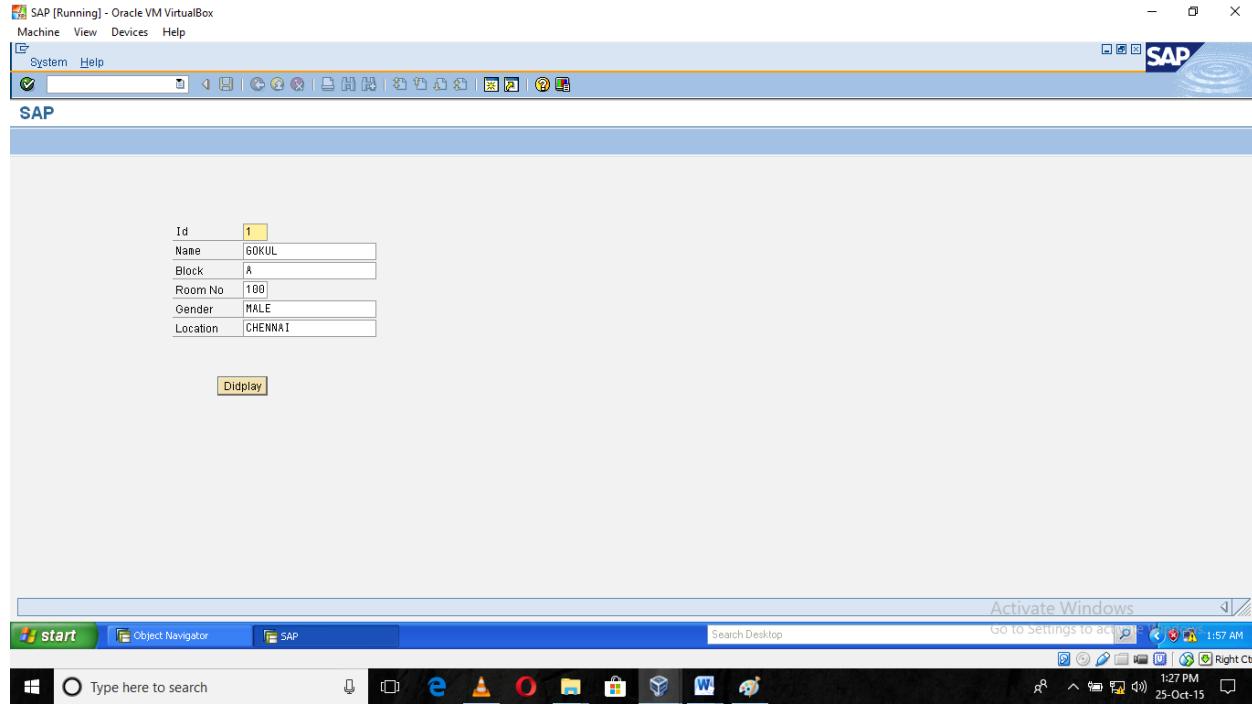
In the execution , there is unable to go to previous screen that's why we can use the transaction code to execute



Screen 3 :



Screen 4 :



TRANSACTION CODES USED

- Se80-object navigator
- /nse80-home page of object navigator.
- Se11-To create table,domains,data types
- /nse11-To home page of create table,domains,data types
- Se16-To create entries for a table
- Z11-program transaction code

DOMAINS CREATED

- Zname(for name,address,gender,department)
- Zdepid(for age, id,)

DATA FIELDS CREATED

- Zstid(for student id ,staff id , hostel id)
- Zstname(for student name , staff name)
- Zstaddress(for student address ,staff address , location)
- Zstgender(for student gender)
- Zstdp(for student department)
- Zstage(for student age)

DATABASE TABLE:

- Zcollege
- zstaff
- zhotel

SCREEN PROGRAM NAME: zcolleges

TOP INCLUDE NAME: zclgs

SCREEN NUMBER: 100 ,200,300,400

PUSH BUTTON NAME: display,

FET CODE: display , disp

CONCLUSION

This case study incorporate all activities required to access college database. It provides all necessary information to the management as well as the student with the use of this system. The user can simply sit in front of the system to monitor each and every query related to college. Database can service the student faculty requests best in time.

REFERENCES:

1. https://help.sap.com/saphelp_46c/helpdata/en/32/419337333fb436e10000009b38f8cf/frameset.htm
2. https://help.sap.com/erp_hcm_ias2_2014_03/helpdata/en/b8/047a31e5554d9aabda408ebcb7a41b/frameset.htm

