Arch

Varo Fundamentals

Student Workbook

Course Objectives

- To understand the architecture of a Varo form
- To be able to design and implement an HTML forms based business process within Varo
- To have confidence in using html to design a form
- To have a good awareness of the wider system capabilities

Module 1: Introduction to Varo

Exercise 1: Render a Form

1. Open Internet Explorer and navigate to the either
   SAPUI5 FLM Portal http://cust01.w4.local:8002/sap/bc/bsp/flmui5/portal/entry.htm
2. Log on to the FLM Portal using the user and password provided
3. Select each of the icons on the left side and note what functions are possible
4. Select ‘New Form’ and view the form categories
5. Select the ‘TS03’ form type in FLMH in order to see the form rendered within the FLM Portal
6. Select ‘Submit’ and submit your form.
7. View your form in the Portal Inbox

NOTES:

Module 2:
FLM Object Model

Exercise 2a: Create a form category

1. Navigate to the FLM menu through the SAP IMG
2. Select the menu 'Initialise Customer Code / Define Form Categories
3. Add a new form category and description
   - Customer Code ACL
   - Category – Your initials
   - Description -Form by (your name)
4. Save the new form category.
5. Open the FLM Portal
6. Navigate to 'Tasks – New Form'
7. Note that your new form category is available

Exercise 2b: Create a form status

1. Navigate to the FLM menu through the SAP IMG
2. Select the menu 'Initialise Customer Code / Define Form Statuses
3. Add a new form status and description
   - Customer: Code ACL
   - Status: S*n* (where n is your student number)
   - Description: Submitted (<Student Name>)
   - Category: Intermediate Status
4. Save the new form status.

Module 4:
Logical Form Design

Exercise 4: Form Wizard

1. Navigate to the Form Wizard: SPRO -> SAP Reference IMG->*Cross-Application Components -> General Application Functions -> FLM -> Interactive Forms -> Setup Forms -> Form Wizard*
2. Start the Wizard with the following details:
   - Form Type Code 'ST(nn) where (nn = *<2-digit Student Number>'*) (e.g. ST01)
   - Version '00'
   - Language 'EN'
   - Description 'FLM Timesheet by *<Your Name>'*

3. Use the Data Designer to add the following subforms:

Subform	Parent	MaxOccurs
ROOT		
HEADER	ROOT	1
ITEMS	ROOT	9
FOOTER	ROOT	1

Continue with Data Designer to add the following fields:

Field	Caption	Subform	Type	Access	Man	PreP	F4	Val	Der
H_PERNR	Employee	HEADER	Char	RO		X			
H_FULL_NAME	Name	HEADER	Char	RO		X			
H_WEEK_COMMENCING	Week Commencing	HEADER	DD	O	X		X		
H_WEEK_NUM		HEADER	Num						X
H_HR_MON		HEADER	Num	RO		X			
H_HR_TUE		HEADER	Num	RO		X			
H_HR_WED		HEADER	Num	RO		X			
H_HR_THU		HEADER	Num	RO		X			
H_HR_FRI		HEADER	Num	RO		X			
H_HR_SAT		HEADER	Num	RO		X			

H_HR_SUN		HEADER	Num	RO		X			
I_TASK_TYPE	Task Type	ITEMS	DD	O			X		
I_TASK_NAME	Description	ITEMS	Char	O					
I_COST_CENTRE	Cost Centre	ITEMS	DD	O			X		
I_HR_MON	Mon	ITEMS	Num	O					
I_HR _TUE	Tue	ITEMS	Num	O					
I_HR _WED	Wed	ITEMS	Num	O					
I_HR _THU	Thu	ITEMS	Num	O					
I_HR _FRI	Fri	ITEMS	Num	O					
I_HR _SAT	Sat	ITEMS	Num	O					
I_HR _SUN	Sun	ITEMS	Num	O					
I_HR_ITEM_TOTAL		ITEMS	Num	RO					
F_HR_TOTAL	Total	FOOTER	Num	RO				X	
TXT_PREV_COMMENTS		FOOTER	Char	RO					

4. Step through the other wizard steps…
   - Keep the standard download locations for the PDF and HTML template files
   - Leave the “Use Default Master Template” options, tick the “Generate HTML” checkbox and continue
   - On the next screen Choose options: Online, Open Security and set the Form Category to match your own newly created category
   - Confirm the form has been downloaded to the C:/FLM/Form Templates/HTML folder

Module 5:
HTML Template Design

Exercise 5a: Form Resources

1. Create a project folder "C:\FLM\ ST(nn) HTML Training"
2. Within the project folder, create 3 subfolders -Stylesheets, Images and Javascripts
3. Copy your HTML template created in the FLM Wizard from "C:FLM\HTML" into the project folder
4. Right click on ST(nn) and select Open with Explorer to view the generated HTML form in your browser
5. Navigate to the Manage Resources menu option: SPRO -> SAP Reference IMG->Cross-Application Components -> General Application Functions -> FLM -> Interactive Forms -> Setup Forms -> Manage Form Resources and download the required files to your project folder:
   a. FLMStyles_295SP4_V3_train.css (Stylesheets)
   b. bootstrap.css (Stylesheets)
   c. Arch logo (Images)

Exercise 5b: Notepad++

1. Open Notepad++
2. Select File and Open, and navigate to the C:/FLM/ST(nn) folder and select FLM_ACL_ST(nn)_E_00
3. Format the HTML using the menu option Plugins > XML Tools >Pretty Print (libXML)
4. Select Run and Launch in IE
5. Find the linked resources in the header section of the html template
6. Add links to the files below downloaded in the previous exercise:

```
<link href="./Stylesheets/FLMStyles_295SP4_V3_train.css" rel="Stylesheet" type="text/css"/>
```

7. Delete the links to files not required OR change to a comment as below:

```
<!-- <link href="./Stylesheets/FLMStyles_295SP5_v34RC_ACL.css" rel="Stylesheetype="text/css"/>  -->
```

8. Save the template
9. Launch your template in Notepad++ using Run>Launch in IE and view the changes

Exercise 5c: Editing forms

1. Replace the entire header from <div id="HEADER_DIV" class="fieldset">with HEADER_DIV.txt.
2. Validate using Notepad++ plug-in "XML tools" with "Validate Now"
3. Format your html template using the "Pretty print (libXML)experimental" option and save the changes
4. View the form in Notepad++ to see the changers to the header

5. Replace the FOOTER_DIV with the contents of the notepad file: FOOTER_DIV
6. Copy and paste the text from the COMMENTS_DIV below the FOOTER_DIV and before SF_SPACER
7. Run the HTML in your browser to confirm the changes
8. Use http://www.freeformatter.com/html-validator.html to identify any errors

9. Search for <span id="title" class="heading"> in the headercontainer <div>
10. Delete the text between the opening <div> and Closing </div> and paste in the contents of the table below

```
<table class="table">
 <tr>
   <td style="width: 40%"><span id="title" class="heading">Timesheet STnn</span>
   </td>
   <td style="width: 60%" />
   <td> <img alt="Arch" src="./Images/Arch.jpg" align="bottom" width="71" height="71" />
   </td>
 </tr>
</table>
```

11. Replace ST(nn) with your form name
12. Reformat your template using Pretty Print(libXMLexperimental)
13. Save the changes and view in the IE browser

Exercise 5d: Fields and Labels

1. Change the fields labels below.

	Caption	New Caption
I_TASK_NAME	Description	Task Description
I_HR_ITEM_TOTAL	I_HR_ITEM_TOTAL	

2. Save and preview the changes.

Exercise 5e: Working with CSS

1. Download all CSS or Stylesheet resources linked in the head section from Manage Form Resources>Stylesheets folder
2. Download *FLMStyles_ACL_TSXX*, to the ST(nn)/Stylesheets folder. Open in Notepad++ and save as *FLMStyles_ACL_ST(nn).css* file

```
<link href="./Stylesheets/FLMStyles_ACL_STnn.css" rel="Stylesheet" type="text/css"/>
```

3. View the form in the browser to see the changes
4. Change the class definitions for the fields below:

Field Name	Width class attribute
H_HR_MON through H_HR_FRI	hoursInput fieldNumeric tb aCentre ro
I_HR_MON__1 through I_HR _FRI__1	hoursInput fieldNumeric2 tb aCentre
I_HR _ITEM_TOTAL__1	hoursInput fieldNumeric2 tb aCentre ro
<tr id="ITEMS_ROOT__1"> BT_ITEMS_DEL__1	button
F_HR_TOTAL	hoursInput fieldNumeric2 tb aCentre bnone ro

5. Add in the definition for the widths w700, w820 and w1075 in the FLMStyles_ACL_ST(nn) file
6. View the file in the notepad++ IE browser
7. Upload your FLM_ACL_ST(nn)_E_00 template and FLMStyles_ACL_ST(nn).css files
8. Navigate to Forms Optimization>Display Options>Render Control
   Select your form Category and form type. Select status Initial and change the UI type to HTML.
   A user exit at form level may also be used. This will be covered in later in the course.
9. Review your form in the Form Portal

Module 6:
HTML and JavaScript

Exercise 6: JavaScript

1. Download formMethods_295SP5_v2_XXXX.js – Partial to your project Javascripts folder and rename it to your form type as formMethods295SP4_v2_ST(nn).js
2. Rename the link to the formMethods.js file to formMethods295SP5_v34RC_ACL_ST(nn).js
3. Open this new file in your editor
4. Navigate to the end of the file and locate / Form specific functions // Add your own functions here. // Client Start
5. Copy and paste the javaScript below to create a new function.

```
// This function will check the value of the field passed in is between 0 and 8
// If not the user will be alerted, the value will be cleared and the user
// kept in the field to let them try again

function checkDayTotal(pField)
{
        var vHours = Number(pField.value);

        if (vHours > 8 || vHours < 0)
        {
                alert("Please enter between 0 and 8 hours per day");
                pField.value = "";
                pField.focus();
        }
}
```

6. Search for function validateMethod(obj)
7. In its “switch (objId)” between //Client Start and //Client End paste the code below

```
// For any of the daily hour fields
// validate the hours

case "I_HR_MON" :
case "I_HR_TUE" :
case "I_HR_WED" :
case "I_HR_THU" :
case "I_HR_FRI" :
case "I_HR_SAT" :
case "I_HR_SUN" :
        checkDayTotal(obj);
        break;
```

8. Using the code below add another new Javascript function below the function checkDayTotal(pField) added in step 3.

```
// This function will determine the number of ITEM rows
// For each row  the total hours will be calculated and a running
// total for all rows will be used to update the grand total

function calcrowtotal()
{
        var vItems = document.getElementById("ITEMS");
        var vTotal = document.getElementById("F_HR_TOTAL");
        var vTempTotal = 0;

        var vItemsLgth = vItems.rows.length - 1;
        for (var count = 1; count <= vItemsLgth; count++)
        {
                var monday = Number(document.getElementById("I_HR_MON" + "__" + count).value);
                var tuesday = Number(document.getElementById("I_HR_TUE" + "__" + count).value);
                var wednesday = Number(document.getElementById("I_HR_WED" + "__" + count).value);
                var thursday = Number(document.getElementById("I_HR_THU" + "__" + count).value);
                var friday = Number(document.getElementById("I_HR_FRI" + "__" + count).value);
                var saturday = Number(document.getElementById("I_HR_SAT" + "__" + count).value);
                var sunday = Number(document.getElementById("I_HR_SUN" + "__" + count).value);
                var subTotal = document.getElementById("I_HR_ITEM_TOTAL" + "__" + count);
                subTotal.value = monday + tuesday + wednesday + thursday + friday + saturday + sunday;
                vTempTotal = vTempTotal + parseFloat(subTotal.value);

        }
        vTotal.value = vTempTotal;
}
```

9. Search for function onblurMethod(obj)
10. Between the //Client Start and end, copy and paste the code below

```
// After choosing the Week perform a check cycle to refresh dates
        case "H_WEEK_COMMENCING" :
           do_check();
           break;

// If exiting any of the daily hour fields
// recalculate the totals

        case "I_HR_MON" :
        case "I_HR_TUE" :
        case "I_HR_WED" :
        case "I_HR_THU" :
        case "I_HR_FRI" :
        case "I_HR_SAT" :
        case "I_HR_SUN" :
           calcrowtotal(obj);
           break;
```

11. Save the updated file
12. Find the onchangeMethod. Between //Client Start and //Client End add the code below

```
case "H_WEEK_COMMENCING" :
        if (!flm.LOADING)
          do_check();
break;
```

13. Save the changes
14. Find I_BUTTON_ADD and change to BT_ITEMS_ADD
15. Find I_BUTTON_DELETE and change to BT_ITEMS_DEL
16. Delete any links to other formMethods.js files
17. Upload your template and .js files to Form Resources to test in the FLM Portal

NOTES:

Module 7:
Business Logic I

Exercise 7: Form/Field-level user-exits

1. Go to menu: FLM/Interactive Forms/Business Logic/Field Userexits
2. Enter your own unique form code ‘ST<Student number>’, click continue
3. Click on the PrePopulation Tab
4. Select field ‘H_PERNR’ and add the following code, between the <<<Start of Customer Code>>> and <<< End of Customer Code>>> markers:

```
DATA: l_pernr TYPE /flm/tc100_per.
*
  IF im_value IS INITIAL.
*
  SELECT SINGLE * FROM  /flm/tc100_per INTO l_pernr
        WHERE  uname  = im_user.
*
  CALL FUNCTION 'CONVERSION_EXIT_ALPHA_OUTPUT'

    EXPORTING
      input  = l_pernr-pernr
    IMPORTING
      output = ex_value.
*
  ELSE.
   ex_value = im_value.
  ENDIF.
```

5. Select field ‘H_FULLNAME’ and add the following code:

```
  DATA: l_usr03 TYPE usr03.
*
  IF im_user IS NOT INITIAL.
*
  CALL FUNCTION 'SUSR_USER_ADDRESS_READ'
    EXPORTING
      user_name  = im_user
    IMPORTING
      user_usr03 = l_usr03.
*
```

```
  CONCATENATE l_usr03-name1
            l_usr03-name2
       INTO ex_value SEPARATED BY space.

*
  ELSE.
    ex_value = im_value.
  ENDIF.
```

6. Click on the F4 Tab
7. Select field 'H_WEEK_COMMENCING' and add the following code

```
DATA: w_f4_line   TYPE /flm/form_data,
      w_today     TYPE dats,
      w_index     TYPE integer1,
      w_return    TYPE bapiret2,
      t_dates_int TYPE /flm/lsc_date_in,
      t_dates_ext TYPE /flm/lsc_date_ex,
      w_int       TYPE LINE OF /flm/lsc_date_in,
      w_ext       TYPE LINE OF /flm/lsc_date_ex.
*
  w_today = sy-datum.
  w_index = 1.                   "Day index for Monday
*
  CLEAR w_return.
  REFRESH: t_dates_int, t_dates_ext.
*
* Invoke the function to work out Week Commencing Dates
*
  CALL FUNCTION '/FLM/GET_WC_DATS'
    EXPORTING
      start_date     = w_today
      index_commence = w_index
    IMPORTING
      dates_internal = t_dates_int
      dates_external = t_dates_ext
      return         = w_return.
** Make sure we had a clean call
*
  CHECK w_return-type NE 'E'.
*
* Copy data to form field:
*
  LOOP AT t_dates_int INTO w_int.
    w_f4_line-name  = w_int.        "Date real value
    READ TABLE t_dates_ext INTO w_ext INDEX sy-tabix.
    w_f4_line-value = w_ext.        "Date readable value
    APPEND w_f4_line TO ch_form_data.
```

```
ENDLOOP.
```

8. Select field 'I_COST_CENTRE and add the following code

```
DATA: l_cc_details TYPE /flm/tc100_cct,
      l_form_data  TYPE /flm/form_data.
*
SELECT * FROM /flm/tc100_cct INTO l_cc_details WHERE spras = sy-langu+0(1).
*
  CLEAR: l_form_data.
  l_form_data-name  = l_cc_details-cost_centre.

  CONCATENATE l_cc_details-cost_centre
        ' (' l_cc_details-cost_name ')'
      INTO l_form_data-value.



  APPEND l_form_data TO ch_form_data.
*
ENDSELECT.
*
```

9. Select field 'I_TASK_TYPE and add the following code

```
DATA: l_task_details TYPE /flm/tc100_taskt,
      l_form_data    TYPE /flm/form_data.
*
SELECT * FROM /flm/tc100_taskt INTO l_task_details WHERE spras = sy-langu+0(1).
*
  CLEAR: l_form_data.
  l_form_data-name  = l_task_details-task_type.
  l_form_data-value = l_task_details-task_name.
  APPEND l_form_data TO ch_form_data.
*
ENDSELECT.
```

10. Select field 'H_HR_MON and add the following code

```
  DATA: l_date(2) TYPE n.
*
CALL FUNCTION '/FLM/GET_WC_OFFSET_DATE'
  EXPORTING
    im_data       = im_data
    im_day_number = '1'      "Monday
  IMPORTING
    ex_date       = l_date.
*
   ex_value = l_date.
```

```
*
```

11. Repeat step 10 for TUE through to SUN increasing the value of "im_day_number" by 1 each time such that TUE = 2, WED = 3 and finally H_HR_SUN will be 7

12. Click on the Derivations Tab
13. Select field 'H_WEEK_NUM' and add the following code

```
  DATA: l_data_item TYPE /flm/xml_tab,
        l_week_comm TYPE dats,
        l_weeknum   TYPE kweek.   "yyyyww
*
  CLEAR ex_value.
*
* Firstly get Week Commencing parameter so we know which week has been selected:
*
  READ TABLE im_data INTO l_data_item WITH KEY name = 'H_WEEK_COMMENCING'.
  CHECK sy-subrc IS INITIAL.
*
  l_week_comm = l_data_item-value.
*

* Use SAP function to get the week number:
*
  CALL FUNCTION 'DATE_GET_WEEK'
    EXPORTING
      date         = l_week_comm
    IMPORTING
      week         = l_weeknum
    EXCEPTIONS
      date_invalid = 1
      OTHERS       = 2.
*
  IF sy-subrc <> 0.
*
* Store any errors in FLM system log:
*
    CALL METHOD /flm/core=>error
      EXPORTING
        im_type   = sy-msgty
        im_number = sy-msgno
        im_v1     = sy-msgv1
        im_v2     = sy-msgv2

        im_v3     = sy-msgv3
        im_v4     = sy-msgv4
        im_id     = sy-msgid.
    EXIT.
*
  ENDIF.
*
  ex_value = l_weeknum+4(2). "yyyyww
*
```

14. Click on the Validations Tab
15. Select field 'F_HR_TOTAL' and add the following code

```
    DATA: l_data_item TYPE /flm/xml_tab,
      l_pernr     TYPE pernr_d,
      l_week_num  TYPE /flm/week_num,
      l_data      TYPE /flm/tc100_data.
*
* Firstly get the personnel number parameter so we know week has been selected:
*
  CLEAR l_data_item.
  READ TABLE im_data INTO l_data_item WITH KEY name = 'H_PERNR'.
  CHECK sy-subrc IS INITIAL.
 *
  l_pernr = l_data_item-value.
*
* Now get the number of the week commencing:
*
  CLEAR l_data_item.
  READ TABLE im_data INTO l_data_item WITH KEY name = 'H_WEEK_NUM'.
  CHECK sy-subrc IS INITIAL.
*
  l_week_num = l_data_item-value.
*
* Now check if this data has been posted before:
*

  SELECT * FROM  /flm/tc100_data UP TO 1 ROWS INTO l_data
        WHERE  pernr     = l_pernr
        AND    week_num  = l_week_num.
  ENDSELECT.
*
* Response is error if this is true:
*
*
  IF sy-subrc IS INITIAL.
*
    ex_response = 'A'.
    ex_mess_num = '004'.
    ex_msgvar1  = l_week_num.
*
  ENDIF.
```

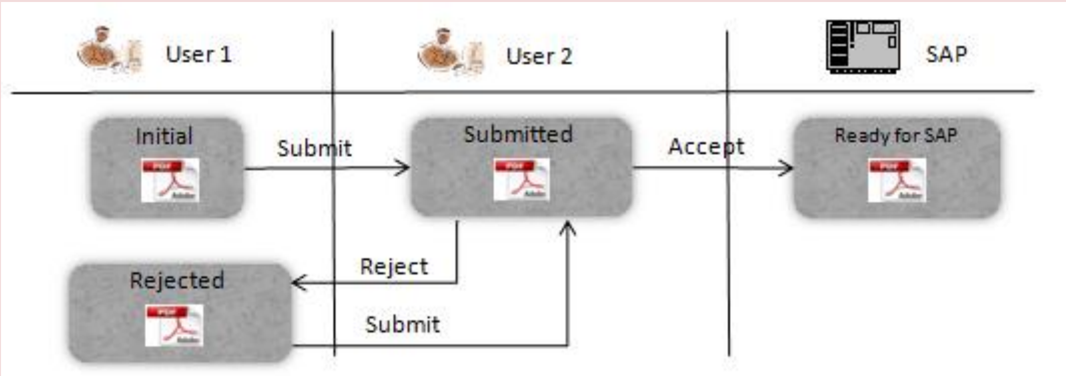
16. Go to menu: FLM/Interactive Forms/Business Logic/Form Userexits
17. Select your 'ST(nn) form, click 'UI Type and add the code below.

```
ch_ui_typ = 'H'.
```

Module 8:
Business Logic II

Exercise 8a: Form Routing

1. Open message class /FLM/ACL in transaction SE91
2. Find or create messages as follows:
3. nn1 Please approve form for employee &1 emp num &2
4. nn2 Form rejected, please resubmit
5. nn3 Form resubmitted for employee &1 emp num &2
6. Save under a workbench request
7. Navigate to the FLM menu through the SAP IMG
8. Menu /Interactive Forms/Form Routing/Routing Configuration table
9. Model the following status network in the table:



10. Add the message numbers to derive the appropriate messages in the 'PTI Num' field.
11. Save your entries.

12. Go to menu: FLM/Interactive Forms/Business Logic/Form UserExits
13. Select your 'ST(nn) form, click 'Routing'
14. Scroll to the UserExit (hint: between <<Start/End of Customer Code)>> and select insert to begin typing. Add the following code:

```
*
  CASE im_status.
    WHEN 'S'.
      ex_owner = 'USER2'.                  "USER2 is the approver for everyone
    WHEN 'R'.
      ex_owner = im_instance-finitiator.   "back to person that started form
    WHEN OTHERS.
      ex_owner = 'SAP'.                    "Ready for posting into SAP.
  ENDCASE.
*
```

Exercise 8b: Notifications

1. Go to menu: FLM>Interactive Forms> Setup Forms>Maintain Email Formats
2. Select Floe from the drop-down for Notifications
3. Navigate to General Application Functions> Floe>Maintain HTML Blocks
4. Edit the text for the Floe notification e-mail body
    - HTML Block Name ACL_ST(nn)_STN(n)
    - Add “from ‘your name’ to the end of the text
    - Save under your customizing correction

5. In the routing table, on the submitted status, add the configuration to trigger a notification e-mail.

- Send Notif (checked)
- Email Type WLN(n)
- Comm Lang: E (English)

Exercise 8c: Reminders

1. In transaction SO10, create a text for the reminder e-mail subject
   - Text Name /FLM/SU(nn)_REMIND_SUBJECT
   - Text ID SU
   - Language EN
2. Add the text 'Timesheet for Approval'
3. Create a text for the notification e-mail body
   - Text Name /FLM/SU(nn)_REMIND_BODY
   - Text ID SU
   - Language EN
4. Add text:
   This is a reminder that a timesheet has been routed to you for your attention.
   Please use the FLM Form Portal or the link below to open the form and approve or reject.
   &PORTAL_URL& - For HTML and MUI Portal use &URL& instead

5. From the FLM menu in the SAP IMG, open the Routing Configuration option
6. Select your form type and then 'Reminders and Escalations'
7. Add a Reminder for the form type at 'Submitted' status
   - Remind flag (checked)
   - Days 3
   - Title Text /FLM/SU(nn)_REMIND_SUBJECT
   - Body Text /FLM/SU(nn)_REMIND_BODY

8. Save your entries.

Module 9:
Business Logic III

Exercise 9: Form Indexing

1. Go to menu: FLM/Interactive Forms/Setup forms/Form Types Configuration
2. Select your own form type code, click 'Setup Form Fields for Indexing'
3. Add the following entries:

Index 1	H_FULL_NAME
Index 2	H_PERNR
Index 3	H_WEEK_COMMENCING

4. Save your changes

Module 10:
Form Posting Engine

Exercise 10: Form Posting

1. Navigate to transaction SE37
2. Enter function module:
   /FLM/STU<student number>_TIMESHEET_700

   Eg /FLM/STU01_TIMESHEET_700
   /FLM/STU02_TIMESHEET_700 etc

3. Click 'Change'
4. Add code as described in the attachment below
5. Save and activate your posting adapter function

```
*...Personnel number:
  CLEAR g_data_item.
  READ TABLE im_forms_data INTO g_data_item WITH KEY name = 'H_PERNR'.
  g_pernr = g_data_item-value.
*...Week number:
  CLEAR g_data_item.
  READ TABLE im_forms_data INTO g_data_item WITH KEY name = 'H_WEEK_NUM'.
  g_week_num = g_data_item-value.
*---------------------------------------------------------------------*
* Get timesheet items:
*---------------------------------------------------------------------*
  REFRESH t_data.
  g_index = '000'.
  DO.
    ADD 1 TO g_index.
    CONCATENATE 'ITEMS.' g_index INTO g_subform.
    CLEAR: g_sf_found,
           g_data.
*
    LOOP AT im_forms_data INTO g_data_item WHERE path CS g_subform.
      g_sf_found = 'X'.
      CASE g_data_item-name.
        WHEN 'I_COST_CENTRE'.
          g_data-cost_centre = g_data_item-value.
        WHEN 'I_TASK_TYPE'.
          g_data-task_type   = g_data_item-value.
        WHEN 'I_HR_ITEM_TOTAL'.
          g_data-total_hours = g_data_item-value.
        WHEN 'I_TASK_NAME'.
          g_data-task_name = g_data_item-value.
      ENDCASE.
    ENDLOOP.
*
    IF g_sf_found IS INITIAL.
      EXIT.
    ENDIF.
    g_data-pernr    = g_pernr.
    g_data-week_num = g_week_num.
    COLLECT g_data INTO t_data.
  ENDDO.
*---------------------------------------------------------------------*
* Now update Timesheet Application database:
```

```
*--------------------------------------------------------------------------------*
  CALL FUNCTION '/FLM/BAPI_TS_UPDATE'
    EXPORTING
      im_data   = t_data
    IMPORTING
      ex_return = g_return.
*--------------------------------------------------------------------------------*
* Handle the return from the BAPI update:
*--------------------------------------------------------------------------------*
  IF g_return-type ne 'E'.
    ex_subrc = 0.
    CONCATENATE g_pernr g_week_num INTO ex_posted_doc.
  ELSE.
    ex_subrc = 4.
    APPEND g_return TO ch_return.
    CLEAR ex_posted_doc.
  ENDIF.
*--------------------------------------------------------------------------------*
```

6. Navigate to: Forms Posting Engine->FPE Configuration.
7. Select your form type and then 'Valid Statuses'
8. Ensure that 'Posting Ok' is set for your approved status.
9. Select 'Posting Adapters'
10. For the approved status, enter the posting adapter function name. (This may require the addition of a new entry).
11. Save your entries.

Module 11:
Form Render Control

Exercise 11: Form Render Control

1. Open the FLM menu in the SAP IMG
2. Navigate to 'Forms Optimisation / Display Options / Subform and Field Control
3. Enter your form type and then select the status 'Submittedl'
4. Select 'Fields' to see a list of fields
5. Change all fields to have access of Read Only
6. Save your entries

7. Navigate to 'Forms Optimisation / Display Options / Render Control
8. Select your form type and the 'Initial' status
9. In the detailed view, select the options 'No back button'
10. Render your form in the FLM Portal and note the changes to the form and Portal options