

# Employee Leave Management System.

## 1<sup>st</sup> Step: Table Creation

### 1) 1<sup>st</sup> Table : Employee Details Table

The screenshot shows the SAP Dictionary: Change Table interface for the ZZEMPLOYEE\_TABLE. The table has 5 fields:

Field	Key	Init.	Data element	Data Type	Length	Deci...	Coordinate	Short Description	Group
CLIENTI	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	MANDT	CLNT	3	0	0	Client	
EMP_ID	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ZEMP_ID	CHAR	10	0	0	EMPLOYEE ID	
EMP_NAME	<input type="checkbox"/>	<input type="checkbox"/>	ZEMP_NAME	CHAR	50	0	0	EMPLOYEE NAME	
DEPT	<input type="checkbox"/>	<input type="checkbox"/>	ZEMP_DEPT	CHAR	10	0	0	EMPLOYEE DEPARTMENT NAME	
MANAGER_ID	<input type="checkbox"/>	<input type="checkbox"/>	ZMAN_ID	CHAR	10	0	0	MANAGER ID	

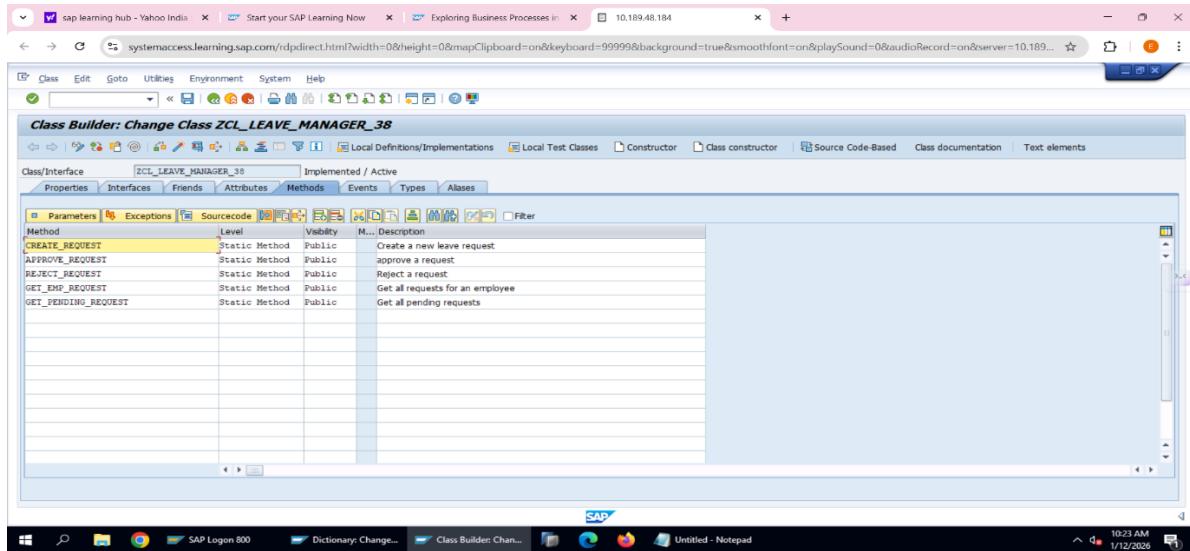
### 2) 2<sup>nd</sup> Table : Leave Request Table

The screenshot shows the SAP Dictionary: Change Table interface for the ZLEAVE\_REQ\_T. The table has 9 fields:

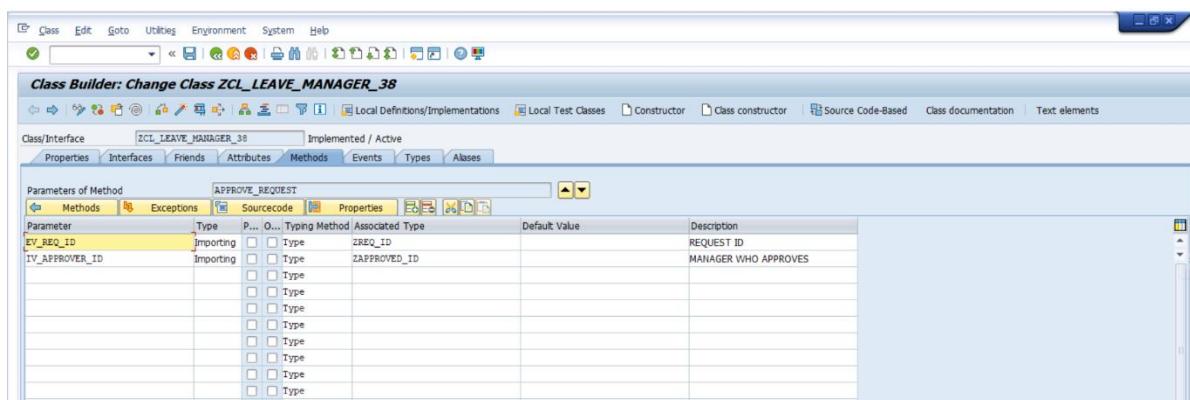
Field	Key	Init.	Data element	Data Type	Length	Deci...	Coordinate	Short Description	Group
CLIENT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	MANDT	CLNT	3	0	0	Client	
REQ_ID	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ZREQ_ID	NRNC	10	0	0	REQUEST ID	
EMP_ID	<input type="checkbox"/>	<input type="checkbox"/>	ZEMP_ID	CHAR	10	0	0	EMPLOYEE ID	
START_DATE	<input type="checkbox"/>	<input type="checkbox"/>	ZSTART_DATE	DATS	8	0	0	LEAVE START DATE	
END_DATE	<input type="checkbox"/>	<input type="checkbox"/>	ZEND_DATE	DATS	8	0	0	LEAVE END DATE	
LEAVE_TYPE	<input type="checkbox"/>	<input type="checkbox"/>	ZLEAVE_TYPE	CHAR	20	0	0	LEAVE TYPE	
STATUS	<input type="checkbox"/>	<input type="checkbox"/>	ZSTATUS	CHAR	10	0	0	NEW APPROVE REJECT	
REQUEST_DATE	<input type="checkbox"/>	<input type="checkbox"/>	ZREQ_DATE	DATS	8	0	0	REQUEST DATE	
APPROVED_ID	<input type="checkbox"/>	<input type="checkbox"/>	ZAPPROVED_ID	CHAR	10	0	0	MANAGER WHO APPROVES	

## 2<sup>nd</sup> Step : Create Class Entering Tcode SE24 at Command Field

Method Created:



Methods Parameters Created :



Class Builder: Change Class ZCL\_LEAVE\_MANAGER\_38

Properties | Interfaces | Friends | Attributes | Methods | Events | Types | Alases

Parameters of Method: CREATE\_REQUEST

Parameter	Type	P... O...	Typing Method	Associated Type	Default Value	Description
IV_EMP_ID	Importing	<input type="checkbox"/>	<input type="checkbox"/>	ZEMP_ID		EMPLOYEE ID
IV_START_DATE	Importing	<input type="checkbox"/>	<input type="checkbox"/>	DATS		Field of type DATS
IV_END_DATE	Importing	<input type="checkbox"/>	<input type="checkbox"/>	DATS		Field of type DATS
IV_TYPE	Importing	<input type="checkbox"/>	<input type="checkbox"/>	ZLEAVE_TYPE		LEAVE TYPE
EV_REQ_ID	Exporting	<input type="checkbox"/>	<input type="checkbox"/>	ZREQ_ID		REQUEST ID

Class Builder: Change Class ZCL\_LEAVE\_MANAGER\_38

Properties | Interfaces | Friends | Attributes | Methods | Events | Types | Alases

Parameters of Method: REJECT\_REQUEST

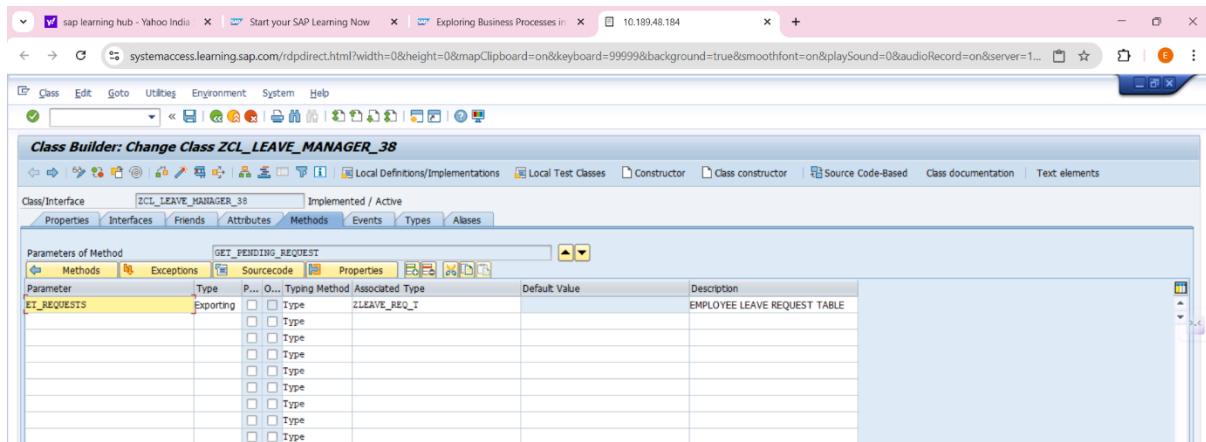
Parameter	Type	P... O...	Typing Method	Associated Type	Default Value	Description
IV_REQ_ID	Importing	<input type="checkbox"/>	<input type="checkbox"/>	ZREQ_ID		REQUEST ID

Class Builder: Change Class ZCL\_LEAVE\_MANAGER\_38

Properties | Interfaces | Friends | Attributes | Methods | Events | Types | Alases

Parameters of Method: GET\_EMP\_REQUEST

Parameter	Type	P... O...	Typing Method	Associated Type	Default Value	Description
IV_EMP_ID	Importing	<input type="checkbox"/>	<input type="checkbox"/>	ZEMP_ID		EMPLOYEE ID
ET_REQUESTS	Exporting	<input type="checkbox"/>	<input type="checkbox"/>	ZET_REQUESTS		EMPLOYEE LEAVE REQUEST TABLE



### 3<sup>rd</sup> Step Writing Code for Class Methods in Source code at se24 and Create Report for it at se38

#### 1. Method : Create\_Request

method CREATE\_REQUEST.

```
IF iv_start_date > iv_end_date.
  RAISE invalid_dates.
ENDIF.
```

DATA: lv\_req\_id TYPE zreq\_id.

```
CALL FUNCTION 'NUMBER_GET_NEXT'
  EXPORTING
    nr_range_nr      = '01'
    object          = 'ZLEAVE_REQ_T'
    * QUANTITY       = '1'
    * SUBOBJECT      = ''
    * TOYEAR         = '0000'
    * IGNORE_BUFFER   =
  IMPORTING
    NUMBER          = lv_req_id
    * QUANTITY       =
    * RETURNCODE      =
  EXCEPTIONS
    * INTERVAL_NOT_FOUND = 1
    * NUMBER_RANGE_NOT_INTERN = 2
    * OBJECT_NOT_FOUND   = 3
    * QUANTITY_IS_0      = 4
    * QUANTITY_IS_NOT_1   = 5
    * INTERVAL_OVERFLOW   = 6
    * BUFFER_OVERFLOW     = 7
    OTHERS             = 1.
```

```
IF sy-subrc <> 0.
  * Implement suitable error handling here
ENDIF.
```

```
DATA(ls_request) = VALUE ZLEAVE_REQ_T(
    req_id = lv_req_id
    emp_id = iv_emp_id
    start_date = iv_start_date
    end_date = iv_end_date
    leave_type = iv_type
    status = 'PENDING').
```

```
INSERT ZLEAVE_REQ_T FROM ls_request.
```

```
IF sy-subrc <> 0.
    RAISE save_failed.
ENDIF.
```

```
ev_req_id = lv_req_id.
endmethod.
```

## 2. Report : ZTest\_Create\_Request

```
*&-----*
*& Report ZTEST_CREATE_REQUEST_38
*&-----*
*&
*&-----*
REPORT ZTEST_CREATE_REQUEST_38.
```

```
DATA : LV_REQ_ID TYPE ZREQ_ID.
```

```
CALL METHOD ZCL_LEAVE_MANAGER_38=>CREATE_REQUEST
EXPORTING
```

```
iv_emp_id ='E001'
iv_start_date = '20240610'
iv_end_date = '20240615'
iv_type = 'ANNUAL'
```

```
IMPORTING
```

```
ev_req_id = lv_req_id.
```

```
WRITE: / 'Leave Request Created with ID:', lv_req_id.
```

Output:

**Test create report**

Test create report

Leave Request Created with ID: 0000000011

#### **4<sup>th</sup> Step : Writing Code for Class Methods in Source code at se24 and Create Report for it at se38**

##### **1. Method : Reject\_Request**

method REJECT\_REQUEST.

DATA: ls\_request TYPE ZLEAVE\_REQ\_T.

```
SELECT SINGLE * INTO ls_request FROM ZLEAVE_REQ_T  
WHERE req_id = iv_req_id.
```

```
IF sy-subrc <> 0.  
MESSAGE 'Leave request not found' TYPE 'E'.  
ENDIF.
```

ls\_request-status = 'REJECTED'.

UPDATE zleave\_req\_t from ls\_request.

```
IF sy-subrc <> 0.  
MESSAGE 'Failed to reject request' TYPE 'E'.  
ENDIF.  
endmethod.
```

##### **2. Report : ZTest\_Reject\_Request**

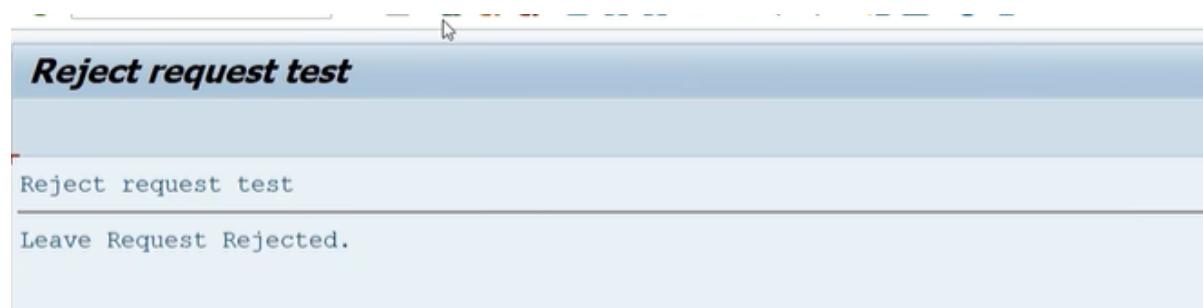
```
*&-----*  
*& Report ZTEST_REJECT_REQUEST  
*&-----*  
*&  
*&-----*
```

REPORT ZTEST\_REJECT\_REQUEST.

```
CALL METHOD ZCL_LEAVE_MANAGER_38=>REJECT_REQUEST  
EXPORTING  
iv_req_id = '000000011'.
```

WRITE: / 'Leave Request Rejected.'.

**Output:**



## 4<sup>th</sup> Step: Writing Code for Class Methods in Source code at se24 and Create Report for it at se38

### 1. Method : Get\_emp\_request

```
method GET_EMP_REQUEST.  
* Select all leave request for this Employee  
SELECT * FROM ZLEAVE_REQ_T  
INTO TABLE ZET_REQUESTS  
WHERE EMP_ID = IV_EMP_ID.  
endmethod.
```

### 2. Report : ZTest\_Emp\_Get\_Request

```
*&-----*  
*& Report ZTEST_GET_EMP_REQUEST  
*&-----*  
*&  
*&-----*  
REPORT ZTEST_GET_EMP_REQUEST.  
  
DATA: IT_REQUESTS TYPE ZLEAVE_REQ_T,  
      LV_EMP_ID TYPE ZEMP_ID VALUE 'E001'.  
  
CALL METHOD ZCL_LEAVE_MANAGER_38=>GET_EMP_REQUEST  
  EXPORTING  
    IV_EMP_ID = LV_EMP_ID  
  IMPORTING  
    ET_REQUESTS = IT_REQUESTS.  
  
LOOP AT IT_REQUEST INTO DATA(LS_REQUEST).  
  WRITE: / LS_REQUEST-REQ_ID, LS_REQUEST-LEAVE_TYPE, LS_REQUEST-START_DATE, LS_REQUEST-  
        STATUS.  
ENDLOOP.
```

#### Output:



The screenshot shows the SAP SE38 output window with the title "Get employee requests test". The table displays five rows of employee leave requests with columns: Request ID, Leave Type, Start Date, and Status.

Request ID	Leave Type	Start Date	Status
0000000002	ANNUAL	10.06.2024	PENDING
0000000003	ANNUAL	04.06.2025	PENDING
0000000001	ANNUAL	10.06.2024	APPROVED
0000000009	EMERGENCY	06.07.2025	APPROVED
0000000011	ANNUAL	10.06.2024	REJECTED

## **5<sup>th</sup> Step : Writing Code for Class Methods in Source code at se24 and Create Report for it at se38**

### **1. Method : Get\_Pending\_Request**

```
method GET_PENDING_REQUEST.  
  " sSELECT ALL LEAVE REQUESTS WITH STATUS PENDING  
  SELECT * FROM ZLEAVE_REQ_T  
  INTO TABLE ET_REQUESTS  
  WHERE STATUS = 'PENDING'.  
  endmethod.
```

## **6<sup>th</sup> Step : Create a Report For Submitting Leave Request**

```
*&-----*  
*& Report ZLEAVE_CREATE_38  
*&-----*  
*&  
*&-----*  
REPORT ZLEAVE_CREATE_38.
```

```
PARAMETERS: p_empid TYPE zemp_id OBLIGATORY,  
           p_start TYPE d   OBLIGATORY,  
           p_end TYPE d    OBLIGATORY,  
           p_type TYPE zleave_type OBLIGATORY.
```

```
DATA: lv_req_id TYPE zreq_id.
```

```
START-OF-SELECTION.
```

```
CALL METHOD zcl_leave_manager_38=>create_request  
EXPORTING  
  iv_emp_id = p_empid  
  iv_start_date = p_start  
  iv_end_date = p_end  
  iv_type = p_type  
IMPORTING  
  ev_req_id = lv_req_id.
```

```
WRITE: / 'Leave request created Successfully.',  
      / 'Request id :', lv_req_id.
```

Output:

Employee ID	E010
Leave Start Date	02.07.2025
Leave End Date	02.08.2025
Leave Type	ANNUAL

**Submit Leave Request**

---

Submit Leave Request

---

Leave request created successfully!  
Request ID: 0000000021

### 7<sup>th</sup> Step : Create Report For Approve Request

```
*&-----*
*& Report ZLEAVE_APPROVE_38
*&-----*
*&
*&-----*
REPORT ZLEAVE_APPROVE_38.
```

PARAMETER: p\_mgr\_id TYPE ZMAN\_ID OBLIGATORY,  
 P\_REQ\_ID TYPE ZREQ\_ID OBLIGATORY,  
 P\_DEC TYPE C LENGTH 1 OBLIGATORY. " A= Approve R= Reject

START-OF-SELECTION.

CASE p\_dec.  
 WHEN 'A'.

```
CALL METHOD zcl_leave_manager_38=>approve_request  
EXPORTING  
  Ev_req_id      = p_req_id  
  iv_approver_id = p_mGR_id.  
WRITE: / 'REQUEST APPROVED'.
```

```
WHEN 'R'.  
CALL METHOD zcl_leave_manager_38=>reject_request  
EXPORTING  
  iv_req_id      = p_req_id.  
  write: / 'Request Rejeceted.'
```

```
WHEN OTHERS.  
  WRITE: / 'Invalid decision entered. Use A - Approve or R = Reject.'.  
ENDCASE.
```

**Output:**

The screenshot shows an SAP Fiori application interface. At the top, there is a toolbar with various icons. Below the toolbar, the title "Approve or Reject Leave Requests" is displayed in bold. On the left side of the main area, there is a form with three fields: "Manager ID" containing "MG021", "required ID" containing "0000000021", and "Decision" containing "R". The "Decision" field is highlighted with a red border. In the bottom right corner of the main area, the message "Request Rejected." is displayed.