Prerequisites

Knowledge of

- ABAP Programming
- Logical Database
- Module pool programming
- SAP Scripts
Training will cover

- Brief description of modules in SAP-HR
- Concept of Infotypes
- Infotype Structures
- Creation of infotype
- Enhancement of infotype
- HR Macros
- Use of Provide statement
- Cluster reading for Payroll results
- Example of PA letters infotype (Customer defined)
<table>
<thead>
<tr>
<th>Modules in SAP-HR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel Management (PA)</td>
</tr>
<tr>
<td>Time Management (PT)</td>
</tr>
<tr>
<td>Recruitment (PB)</td>
</tr>
<tr>
<td>Organizational Management (OM)</td>
</tr>
<tr>
<td>Personnel Development (PD)</td>
</tr>
<tr>
<td>Training &amp; Event Management (TM)</td>
</tr>
</tbody>
</table>
Infotype

Definition

Units of information.
Uses of Infotype

- To group related data fields

INFOTYPES

Personal Data
- Name
- DOB
- Nationality
- Marital Status

Addresses
- Street
- City
- Pin code
- State
Uses of Infotype

- Maintaining Employee Information by Date
Infotype Numbers

- Four digit number *nnnn*
- Unique identification
- **9000 to 9999** reserved for customer infotypes
Naming conventions for Infotypes

- 0000 to 0999 – HR Master data / Applicant data
- 1000 to 1999 – Organizational Management
- 2000 to 2999 – Time data
- 4000 to 4999 – Applicant data
- 9000 to 9999 – Customer defined
Each infotype *nnnn* requires at least two structures and one table:

- **Structure** *PSnnnn*
  Structure *PSnnnn* contains all of the infotype data fields.

- **Structure** *Pnnnn*
  Structure *Pnnnn* contains infotype key fields and all of the data fields from structure *PSnnnn*.

- **Transparent table** *PAnnnn* and/or transparent table *PBnnnn*
  Transparent table *PAnnnn* is required if you want to use an infotype within Personnel Administration.
  
  If you want to use an infotype within Recruitment, transparent table *PBnnnn* is required.

In accordance with the distribution of infotype name ranges, objects *P9nnn*, *PS9nnn*, *PA9nnn* and *PB9nnn* are assigned to the customer name range.
A module pool should be used with each infotype. This module pool is the main program for the maintenance interface for the infotype.

The name of the program is MPnnnn00. Where P stands for Human Resources (personnel) and nnnn is the four-digit infotype number.
The main program only contains INCLUDE statements. If you create the main program using transaction PM01 *Dialogs in HR*, the system also creates the following four includes:

<table>
<thead>
<tr>
<th>Name of include</th>
<th>The include contains</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPnnum10</td>
<td>The PROGRAM statement and the declaration of common data objects</td>
</tr>
<tr>
<td>MPnnum20</td>
<td>PBO modules for the screens</td>
</tr>
<tr>
<td>MPnnum30</td>
<td>PAI modules for the screens</td>
</tr>
<tr>
<td>MPnnum40</td>
<td>subroutines</td>
</tr>
</tbody>
</table>
The system also inserts INCLUDE statements in the main program for the following includes:

<table>
<thead>
<tr>
<th>Name of include</th>
<th>Use</th>
</tr>
</thead>
</table>
| **FP50PPSB**    | Declaration of common data objects  
This data area is used as a buffer for imported infotype records and maintenance information. The variables specified in this area are used as export or import parameters when the infotype dialog module is accessed. |
| **MPPDAT00**    | Declaration of common data objects |
| **MPPERS00**    | Standard infotype modules |
| **MPPIRC00**    | Definition of infotype return codes |
| **MPPREF00**    | Definition of two data objects that contain the number of reference personnel numbers in structure P0031 or P0121 |
Each infotype has at least three screens:

- An initial screen
- A single screen
- A list screen
Initial Screens

- Initial screen is used as technical interface
- Screen 1000 is used for all infotypes
- Processed in background and not displayed
- Performs general initialization procedures
Single Screens

- It's an interface between the system and the user.
- It enables to create, display or maintain data records.
- Screen 2000 is used for single screen.
List Screen

- Unables to list all records in infotye
- Screen 3000 is used for list screen
### List Basic Pay

<table>
<thead>
<tr>
<th>STy</th>
<th>Re</th>
<th>Start date</th>
<th>End date</th>
<th>Ty</th>
<th>Ar</th>
<th>PS group</th>
<th>Lv</th>
<th>Amount</th>
<th>Total amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>02</td>
<td>01.01.2003</td>
<td>31.12.9999</td>
<td>ON</td>
<td>AH</td>
<td>W4</td>
<td>01</td>
<td>12,000.00</td>
<td>15,100.00</td>
</tr>
<tr>
<td>0</td>
<td>03</td>
<td>10.01.2002</td>
<td>31.12.2002</td>
<td>ON</td>
<td>AH</td>
<td>W4</td>
<td>01</td>
<td>11,300.00</td>
<td>12,600.00</td>
</tr>
</tbody>
</table>
Infotype Screen Control

- Through customization some fields are made hidden.
- Attributes are specified during runtime.
- The appearance of the screens changes depending on the function chosen by the user.
Infotype Time Constraint

A time constraint indicates whether more than one infotype record may be available at one time. The following time constraint indicators are permissible:

1. No overlapping and no gaps.
2. No overlapping but time gaps are permitted.
3. Overlapping and time gaps are permitted.
**Other Possible Time Constraint**

A  Only one record may exist, valid from 01/01/1800 to 12/31/9999. Splitting and deletion is not permissible.

B  Only one record may exist, valid from 01/01/1800 to 12/31/9999. Splitting is not permissible, but may be deleted.

T  The time constraint varies depending on the subtype.

Z  Refers to time management infotypes.
The following tables must be maintained for each infotype:

<table>
<thead>
<tr>
<th>Name of table</th>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>T582A</td>
<td>Basic infotype characteristics</td>
</tr>
<tr>
<td></td>
<td>(database tables, single screen, list screen, time constraint, dialog module, and so on)</td>
</tr>
<tr>
<td>T582S</td>
<td>Infotype short texts</td>
</tr>
<tr>
<td>T777A</td>
<td>Technical Characteristics of Infotype (database table, dialog module, and so on)</td>
</tr>
<tr>
<td>T771D</td>
<td>Name of data field structure (PSnnnnn)</td>
</tr>
</tbody>
</table>
Creating PA infotypes

Transaction code

‘PM01’.
Creating PA infotypes – Maintain Structure
Creating PA infotypes – Infotype Table

Dictionary: Display Table

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Fields</th>
<th>Currency/quant fields</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fields</th>
<th>Key Init</th>
<th>Field type</th>
<th>Data</th>
<th>Lgth.</th>
<th>Dec p</th>
<th>Check ta...</th>
<th>Shorttext</th>
</tr>
</thead>
<tbody>
<tr>
<td>HANDT</td>
<td></td>
<td>HANDT</td>
<td>CLNT</td>
<td>3</td>
<td>8</td>
<td></td>
<td>Client</td>
</tr>
<tr>
<td>INCLUDE</td>
<td></td>
<td>MAKEY</td>
<td></td>
<td>0</td>
<td>0</td>
<td></td>
<td>Key for HR Master Data</td>
</tr>
<tr>
<td>PSHD1</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
<td>0</td>
<td></td>
<td>HR Master Record: Control Field</td>
</tr>
<tr>
<td>FS9999</td>
<td></td>
<td></td>
<td></td>
<td>8</td>
<td>8</td>
<td></td>
<td>test infotype</td>
</tr>
</tbody>
</table>

Transparent table: PA9999
Short text: HR Master Record: Infotype 9999
Creating PA info types – Infotype Table (Primary Key)

**Dictionary: Display Table**

Transparent table: PA9999

Short text: HR Master Record: Infotype 9999

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Fields</th>
<th>New rows</th>
<th>Currency/quant. fields</th>
<th>Data element/Direct type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Fields</strong></td>
<td>Key Init.</td>
<td>Field type</td>
<td>Data...</td>
</tr>
<tr>
<td></td>
<td>MANR</td>
<td></td>
<td>CLNT</td>
<td></td>
</tr>
<tr>
<td></td>
<td>INCL</td>
<td></td>
<td>PA09990</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FERNR</td>
<td></td>
<td>NUMC</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SUBT</td>
<td></td>
<td>CHAR</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>OBJS</td>
<td></td>
<td>CHAR</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SPRG</td>
<td></td>
<td>CHAR</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>ENDDA</td>
<td></td>
<td>DATS</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>BEGDA</td>
<td></td>
<td>DATS</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>SEONR</td>
<td></td>
<td>NUMC</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>INCL</td>
<td></td>
<td>PS001</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>INCL</td>
<td></td>
<td>PS99999</td>
<td>0</td>
</tr>
</tbody>
</table>
1. Start the Personnel Administration infotype copier (PM01)
2. Enter the infotype number.
3. Choose Enhance infotype.
Enhancing a Single Screen

- Start transaction PM01
- You access the Create Infotype screen:
- Choose Enhance Infotypes.
- In the Infotype no. field, enter the four-digit number of the infotype you want to create. When you specify the infotype number, please remember to enter any leading zeros.
- In the Sub-Objects group box, flag CI Include.
- Choose Create. The Dictionary: Initial Screen is displayed.
- Create the CI include.
- Choose Activate.
- Return to the Create Infotype screen.
- Choose Create All.

Result

You have included additional fields in the standard single field for an infotype
Enhancing a Single Screen – Maintain Structure

Dictionary: Maintain Structure

Structure: CI_P0001
Short text: test

Attributes

Component: ZZFIELD01
Component type: CHAR
DTyp: 1
Length: 0
Decp: 0
Short text: Ghost field
Only those PA Tables can be Enhanced, having structure CI Include.
HR Macros

- RP_PROVIDE_FROM_LAST
- RP_PROVIDE_FROM_FIRST
- RP_SET_DATA_INTERVAL
- RP_READ_INFOTYPE
TABLES: PERNR.
INFOTYPES: 0001, "Organizational Assignment"
  0002, "Personal Data"
  0006, "Addresses"
  ....

GET PERNR.
RP_PROVIDE_FROM_LAST P0001 SPACE PN-BEGDA PN-ENDDA.
WRITE...

* * * Include program DBPNPMAC.

DEFINE RP_PROVIDE_FROM_LAST.
  PNP-SW-FOUND = '0'.
  . . .
END-OF-DEFINITION.
Infotype Record Processing

Processing a Specific Infotype Record

```
GET PERNR.
RP_PROVIDE_FROM_LAST <Pnnnn> SPACE PN-BEGDA PN-ENDDA.
IF PNP-SW-FOUND = 1.
  WRITE...
ENDIF.
```
Infotype Record Importing

Importing Specific Infotype Records

Data selection

May
December

PAnnnn

START-OF-SELECTION.
RP_SET_DATA_INTERVAL 'Pnnnn' PN-BEGDA PN-ENDDA.

GET PERNR.

Table
Pnnnnn
Function HR_READ_INFOTYPE

Reading Infotypes Without Logical DB (1)

INFOTYPES: <nnnn>
...
CALL FUNCTION 'HR_READ_INFOTYPE'...
Function HR_READ_INFOTYPE

Reading Infotypes Without Logical DB (2)

INFOTYPES: 0002.
DATA: return LIKE SY-SUBRC.

CALL FUNCTION 'HR_READ_INFOTYPE'
EXPORTING
. . .
  PERNR = <person>,
  INFTY  = '0002',
  BEGDA  = <begdat>,
  ENDDA  = <enddat>

IMPORTING
  SUBRC = return
  TABLES
    INFTY_TAB = P0002
EXCEPTIONS
  INFTY_NOT_FOUND = 1
  OTHERS = 2.
• Many HR reports use macros. Their program codes are stored in a table or defined locally using the DEFINE keyword.

• The PR_PROVIDE_FROM_LAST macro writes the last valid record in the data selection period to the header line of the internal info type table.

• You can use the function module HR_READ_INFOTYPE to read the personnel data in reports which do not use an HR logical database.
Use of PROVIDE Statement

- PROVIDE – ENDPROVIDE is a loop to process $Pnnnn$ tables, within the validity period.
- Two or more infotypes can be processed in a single PROVIDE – ENDPROVIDE loop.
- Combines JOIN and PROJECTION.
- Reads time-dependent table entries.
Functions of Logical Database PNP

1. Data retrieval
2. Screening
3. Authorization check
Functions of Logical database PNP

Data Retrieval

1. Create data structures for infotypes

INFOTYPES: 0001, 0002, 0007.

"Organizational Assignment"
"Personal Data"
"Planned Working Time"

2. Fill the data structures with the infotype records

GET PERNR.
Processing Master Data

TABLES: PERNR.

INFOTYPES: 0001, "Actions"
            0002, "Personal Data"
            0006, "Addresses"
            ....

GET PERNR.

    PROVIDE * FROM P0002 BETWEEN PN-BEGDA AND PN-ENDDA.
    WRITE...

    ENDPROVIDE.
Processing Master Data using PROVIDE

Loop Nesting

GET PERNR.
  PROVIDE * FROM P0002
  BETWEEN PN-BEGDA AND PN-ENDDA.
  WRITE...
  ENDPROVIDE.

PROVIDE * FROM P0006
  BETWEEN PN-BEGDA AND PN-ENDDA.
  WRITE...
  ENDPROVIDE.

END-OF-SELECTION.
Joins in PROVIDE

Join / Creating Intervals

- Personal Data (0002)
- Organizational Assignment (0001)
- Join
Join / Coding

TABLES: PERNR.
INFOTYPES: 0001, "Organizational Assignment"
           0002, "Personal Data"
           0006, "Addresses"
           ....

GET PERNR.
    PROVIDE * FROM P0001
    * FROM P0002
    BETWEEN PN-BEGDA AND PN-ENDDA.

    WRITE...

    ENDPREVIDE.
Join and Projection / Coding

TABLES: PERNR.
INFOTYPES: 0001, "Organizational Assignment"
          0002, "Personal Data"

....

GET PERNR.
PROVIDE STELL
       ENAME FROM P0001
       GBDAT FROM P0002
       BETWEEN PN-BEGDA AND PN-ENDDA.

WRITE...

ENDPROVIDE.
Business Needs:

A letter is to be generated after the following action in the prescribed format:

1. Hiring / Appointment Letter
2. Confirmation Letter
3. Promotion Letter
4. Transfer Letter
5. Relieving Letter on Resignation
6. Retirement Letter

The generated letter should be modifiable and same is to be stored along with each employee and action.
LETTER NO. REC.01        APPOINTMENT LETTER
Mr./Miss [Full name of Employee]
[Position] [Grade]
[Location]

The management is pleased to appoint you as the [POSITION] in [GRADE] with effect from [DATE]. You will report to [POSITION].

Your salary & other benefits are stated in the attached compensation package sheet. You will be on probation for a period of six months. On satisfactory completion of probation you will be confirmed in service.

You shall be governed by the Services rules of the Company, a copy of which is enclosed. A summary of Benefits & Leave Rules as applicable to you is also enclosed.

Please confirm your acceptance by signing the duplicate copy of this letter & intimate the date of joining.

This offer is valid for two months from the date of receipt of this letter.

Faithfully

[Signatory] / SECRETARY
[Designation]
### Structure: PS9011

<table>
<thead>
<tr>
<th>Component</th>
<th>Component Type</th>
<th>Data Type</th>
<th>Len</th>
<th>Dec</th>
<th>Short Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>LDATE</td>
<td>ZLDATE</td>
<td>DATS</td>
<td>8</td>
<td>0</td>
<td>Letter Date</td>
</tr>
<tr>
<td>LTYPE</td>
<td>ZLTYPE1</td>
<td>CHAR</td>
<td>50</td>
<td>0</td>
<td>Letter Type</td>
</tr>
<tr>
<td>SIGN1</td>
<td>ZSIGN1</td>
<td>CHAR</td>
<td>40</td>
<td>0</td>
<td>Signatory</td>
</tr>
<tr>
<td>DESGN</td>
<td>ZDESGN</td>
<td>CHAR</td>
<td>40</td>
<td>0</td>
<td>Designation</td>
</tr>
<tr>
<td>MASSN</td>
<td>ZMASSN</td>
<td>CHAR</td>
<td>2</td>
<td>0</td>
<td>Action Type</td>
</tr>
<tr>
<td>EFFDT</td>
<td>BEGDA</td>
<td>DATS</td>
<td>8</td>
<td>0</td>
<td>Start Date</td>
</tr>
<tr>
<td>SUPER</td>
<td>ZSUPER</td>
<td>CHAR</td>
<td>40</td>
<td>0</td>
<td>SBU / Functional Head</td>
</tr>
<tr>
<td>SBUNM</td>
<td>ZSBUNM</td>
<td>CHAR</td>
<td>40</td>
<td>0</td>
<td>SBU Name</td>
</tr>
<tr>
<td>APDAT</td>
<td>ZAPDAT</td>
<td>DATS</td>
<td>8</td>
<td>0</td>
<td>Appointment Date</td>
</tr>
<tr>
<td>RLDAT</td>
<td>ZRLDAT</td>
<td>DATS</td>
<td>8</td>
<td>0</td>
<td>Relieving Date</td>
</tr>
<tr>
<td>LETTERID</td>
<td>TDOBNAME</td>
<td>CHAR</td>
<td>70</td>
<td>0</td>
<td>Name</td>
</tr>
</tbody>
</table>
Table **ZHR_LTYPE** created for help drop down of field **LTYPE** of structure **PS9011**.

<table>
<thead>
<tr>
<th>Fields</th>
<th>Field Type</th>
<th>Data Type</th>
<th>Len</th>
<th>Dec</th>
<th>Short Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>INFTY</td>
<td>INFTY</td>
<td>CHAR</td>
<td>4</td>
<td>0</td>
<td>Infotype</td>
</tr>
<tr>
<td>SUBTY</td>
<td>SUBTY_591A</td>
<td>CHAR</td>
<td>4</td>
<td>0</td>
<td>Subtype</td>
</tr>
<tr>
<td>LTYPE</td>
<td>ZLTYPE1</td>
<td>CHAR</td>
<td>50</td>
<td>0</td>
<td>Letter Type</td>
</tr>
<tr>
<td>ACTION</td>
<td>MASSN</td>
<td>CHAR</td>
<td>2</td>
<td>0</td>
<td>Action Type</td>
</tr>
<tr>
<td>FRMNM</td>
<td>ZFRMNM</td>
<td>CHAR</td>
<td>30</td>
<td>0</td>
<td>Form Name</td>
</tr>
</tbody>
</table>
B The Management is pleased to appoint you as the &itab-zdesgn& in grade &itab-pktxt& with effect from &itab-effdt&. You will report to ..... 

B Your salary & other benefits are stated in the attached compensation package sheet.
B You will be on probation for a period of six months. On satisfactory completion of probation you will be confirmed in service.

* 

B You shall be governed by the Services rules of the Company, a copy of which is enclosed. A summary of Benefits & Leave Rules as applicable to you is also enclosed.

B Please confirm your acceptance by signing the duplicate copy of this letter & intimate the date of joining.

* 

B This offer is valid for two months from the date of receipt of this letter.

* 

* Faithfully

* 

* &pp9011-sign1&

* 

P2 CC:,,Chief Personnel Officer

P2 ,,Chief Manager, Management Systems and Information

P2 ,, 
Clusters

Definition

Each database object, for example, PCL1 or PCL2, with the type *Import/Export file* consists of related areas. These areas are known as *clusters*, for example. RX, RD.
Display of Cluster data – Payroll Result
## Display of Cluster data – Payroll Result

**Cluster Display IN (Payroll Results, India)**

**Selection**
- **Personnel number**
  - From: [ ]
  - To: [ ]

**Additional data**
- **Period for for periods**
  - From: [ ]
  - To: [ ]
- **Update indicator**
  - [ ]

**List**
- [ ]
- [ ] Choose individual tables
### Display of Cluster data – Payroll Result

**Cluster Display IN (Payroll Results, India)**

<table>
<thead>
<tr>
<th>PerNo</th>
<th>SeqNo UI</th>
<th>ForPer</th>
<th>PerNo</th>
<th>ForPer</th>
<th>ForPerBeg</th>
<th>ForPerEnd</th>
<th>PayType</th>
<th>PayID</th>
<th>OC Rsn</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ST</td>
<td>SI InPer</td>
<td>PerMo InPer</td>
<td>invalid pay date</td>
<td>LPer</td>
<td>BonusDate</td>
<td>PayDate</td>
<td>PayTime</td>
</tr>
<tr>
<td>00000034</td>
<td>00901</td>
<td>01</td>
<td>29.01.2002</td>
<td>61</td>
<td>10.02.2002</td>
<td>27.02.2002</td>
<td>09:50:15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>00000034</td>
<td>00902</td>
<td>01</td>
<td>29.01.2002</td>
<td>61</td>
<td>10.02.2002</td>
<td>27.02.2002</td>
<td>09:50:15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>00000034</td>
<td>00903</td>
<td>01</td>
<td>29.01.2002</td>
<td>61</td>
<td>10.02.2002</td>
<td>27.02.2002</td>
<td>09:50:15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>00000034</td>
<td>00904</td>
<td>01</td>
<td>29.01.2002</td>
<td>61</td>
<td>10.02.2002</td>
<td>27.02.2002</td>
<td>09:50:15</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Display of Cluster data – Payroll Result**

**Cluster Display IN (Payroll Results, India)**

<table>
<thead>
<tr>
<th>Table</th>
<th>Name</th>
<th>Number of lines</th>
</tr>
</thead>
<tbody>
<tr>
<td>VERSC</td>
<td>Status data for payroll accounting</td>
<td>Field string</td>
</tr>
<tr>
<td>PCALAC</td>
<td>Status information for subs.program</td>
<td>1</td>
</tr>
<tr>
<td>PCL2</td>
<td>Update information PCL2</td>
<td>Field string</td>
</tr>
<tr>
<td>WBFP</td>
<td>Work center/basic pay</td>
<td>1</td>
</tr>
<tr>
<td>RT</td>
<td>Results table</td>
<td>50</td>
</tr>
<tr>
<td>RT</td>
<td>Results Table (condensed display)</td>
<td>50</td>
</tr>
<tr>
<td>GRT</td>
<td>Gross results table</td>
<td>0</td>
</tr>
<tr>
<td>CRT</td>
<td>Cumulated results table</td>
<td>24</td>
</tr>
<tr>
<td>BT</td>
<td>Bank transactions</td>
<td>0</td>
</tr>
<tr>
<td>RCE</td>
<td>Cumulate absence classes</td>
<td>0</td>
</tr>
<tr>
<td>CG</td>
<td>Cost distribution</td>
<td>1</td>
</tr>
<tr>
<td>C1</td>
<td>Cost distribution from various infotypes</td>
<td>0</td>
</tr>
<tr>
<td>V6</td>
<td>Variable assignment</td>
<td>1</td>
</tr>
<tr>
<td>DFT</td>
<td>Differences for split gross/not accounting</td>
<td>0</td>
</tr>
<tr>
<td>VCP</td>
<td>Leave in period</td>
<td>0</td>
</tr>
<tr>
<td>ALP</td>
<td>Alternative payment</td>
<td>0</td>
</tr>
<tr>
<td>TT</td>
<td>Subsequent time tickets</td>
<td>0</td>
</tr>
<tr>
<td>STATUS</td>
<td>Status indicator</td>
<td>0</td>
</tr>
<tr>
<td>FUND</td>
<td>Funding</td>
<td>0</td>
</tr>
<tr>
<td>ARREAS</td>
<td>Arrears</td>
<td>0</td>
</tr>
</tbody>
</table>
Display of Cluster data – Payroll Result

Cluster Display IN (Payroll Results, India)

<table>
<thead>
<tr>
<th>PerNo</th>
<th>SeqNo</th>
<th>Name</th>
<th>ForPer</th>
<th>InPer</th>
<th>AS</th>
</tr>
</thead>
<tbody>
<tr>
<td>00000000</td>
<td>1</td>
<td>Sweety Mishra</td>
<td>10.2001</td>
<td>10.2001</td>
<td>A</td>
</tr>
</tbody>
</table>

WPEP Work center/basic pay

<table>
<thead>
<tr>
<th>No</th>
<th>From</th>
<th>To</th>
<th>Action</th>
<th>Reas.</th>
<th>Status</th>
<th>1-9 act.</th>
</tr>
</thead>
<tbody>
<tr>
<td>31</td>
<td>01.01.2002</td>
<td>31.01.2002</td>
<td>01 Hiring</td>
<td>31</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

MRBC 0803 1 E5 3 50000017 MRBC
50000079 0 GEN 100.00 31.00 21.00 109.00 31.00 21.00
180.00 160.00 100.00 MU 10 E5 X 8.00 5.00

Funds center | Fund
### Display of Cluster data – Payroll Result

#### Cluster Display IN (Payroll Results, India)

<table>
<thead>
<tr>
<th>PerNo</th>
<th>SecNo</th>
<th>Name</th>
<th>Forfer</th>
<th>InPer</th>
<th>AS</th>
</tr>
</thead>
<tbody>
<tr>
<td>00000006</td>
<td>1</td>
<td>Sweety Mishra</td>
<td>10.2001</td>
<td>10.2001</td>
<td>A</td>
</tr>
</tbody>
</table>

#### RT Results table

<table>
<thead>
<tr>
<th>PCRI6r</th>
<th>Wage type</th>
<th>WC</th>
<th>C1</th>
<th>C2</th>
<th>C3</th>
<th>Assign: AltPay</th>
<th>CA BT</th>
<th>Abs. YarAssign</th>
<th>Unit</th>
<th>Rate in INR</th>
<th>Amount in INR</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>/001 Valuation basis 1</td>
<td></td>
<td>62.50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>/002 Valuation basis 2</td>
<td></td>
<td>62.50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>/118 FTax Basis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>/119 FTax Basis Nominal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>1Fpy Basic Pay</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>1Fpy Personal Pay(B.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>1SPF SPL Pay FP</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>1SPP SPL Personal Pay</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>1SPD SPL Pay HD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>1SPY Special Pay(Pay Rev 97)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>01</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Note
- The table summarizes various payroll elements for an individual named Sweety Mishra.
- Each row represents a different payroll component with its specific details such as wage type, rate, and amount in Indian Rupees (INR).
Reading the Cluster Directory

*Table containing directory of payroll results
DATA: BEGIN OF RGDIR OCCURS 100.
    INCLUDE STRUCTURE PC261.
DATA: END OF RGDIR.
DATA: COUNTRY LIKE T001P-MOLGA.
...
CALL FUNCTION 'CU_READ_RGDIR'
    EXPORTING
        PERSNR = PERNR-PERNR
    IMPORTING
        MOLGA = country
    TABLES
        IN_RGDIR = RGDIR
    EXCEPTIONS
        NO_RECORD_FOUND = 1
        OTHERS = 2.
Determining Current Payroll Result (1)

DATA: number LIKE PC261-SEQNR.
      GET PERNR.
      CALL FUNCTION 'CU_READ_RGDIR'
      CALL FUNCTION 'CD_READ_LAST'
         EXPORTING
            BEGIN_DATE = PN-BEGDA
            END_DATE = PN-ENDDA
         IMPORTING
            OUT_SEQNR = number
         TABLES
            RGDIR = RGDIR
         EXCEPTIONS
            NO_RECORD_FOUND = 1
            OTHERS = 2.
Determining Last Payroll Result

Determining Current Payroll Result (2)

```abap
DATA: result TYPE PAY99_RESULT.
DATA: rt_header TYPE LINE OF HRPAY99_RT.
    . . .
    CALL FUNCTION 'PYXX_READ_PAYROLL_RESULT'
      EXPORTING
        CLUSTERID                 = 'RX'
        EMPLOYEENUMBER           = p0001-pernr
        SEQUENCENUMBER           = number
        *     READ_ONLY_BUFFER     = ' '
        *     READ_ONLY_INTERNATIONAL = ' '
        *     CHECK_READ_AUTHORITY  = 'X'
        . . .
      CHANGING
        PAYROLL_RESULT            = result
      EXCEPTIONS . .
    LOOP AT result-INTER-RT INTO rt_header.
      WRITE: / rt_header-LGART, ...
    ENDLOOP.
```
## Structure for Payroll Results

Structure: **PAY99_RESULT**

<table>
<thead>
<tr>
<th>EVP</th>
<th>Structure PC261</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTER</td>
<td>Structure PAY99_INTERNATIONAL</td>
</tr>
<tr>
<td>VERS</td>
<td>Type PC202</td>
</tr>
<tr>
<td>RT</td>
<td>Type HRPAY99_RT</td>
</tr>
<tr>
<td>CRT</td>
<td>Type HRPAY99_CRT</td>
</tr>
<tr>
<td>BT</td>
<td>Dummy for national part</td>
</tr>
</tbody>
</table>

**DATA:**

- `result` TYPE **PAY99_RESULT**
- `rt_header` TYPE LINE OF **HRPAY99_RT**.

*Access to payroll result data*

```abap
WRITE: result-INTER-VERSC-FPPER,
     ...
LOOP AT result-INTER-RT INTO rt_header.
     WRITE: / rt_header-LGART, ...
ENDLOOP.
```
1. Whenever an employee is hired, it is mandatory to provide certain documents, which will form a checklist on joining the organization.

   The joining checklist are as follows:
   a. Relieving letter from last employer
   b. Salary Slip of last employer
   c. Graduation certificate
   d. Copy of latest qualification certificate, specify
   e. Income Tax certificate of last employer
   f. Others specify – (3 lines)

Create a customer defined infotype where above details are maintained.
2. Eligibility for LTA allowance is one basic for a financial year. If last year it is not claimed, it can be claimed in the current year.

LTA is one time payment and maintained in IT0015, i.e. Additional payments & deductions.

- Provide and additional field to maintain year for LTA claim. (Infotype Enhancement to IT 0015)
- If LTA claim is not of current year, then LTA reduces to 80% of the current basic. Built a validation for the same.
3. Generate a report to list employee with the latest action in the given date range.

Display following fields:
- a. Employee Number
- b. Employee Name
- c. Action Type
- d. Action Text
- e. Action Start Date

Tips: Make use of HR macros
4. Generate a report to list an employment history in a given date range.

Display following fields:
   a. Employee Number
   b. Employee Name
   c. Action Start Date
   d. Action Type
   e. Action Text

Tips: Make use of provide – endprovide loop
5. Generate a Salary register which will list following fields in matrix format.

<table>
<thead>
<tr>
<th>Emp.No.</th>
<th>Basic</th>
<th>HRA</th>
<th>Conv</th>
<th>Spl.Pay</th>
</tr>
</thead>
<tbody>
<tr>
<td>00001</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>00002</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>00100</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Read data from Payroll Cluster and display it in the above format.

Tips: Refer to SAP standard programs in T.Code PC00_M99_CLGA09 and PC_M99_CLGV09