Generate Load and Report Data Using Custom Payroll Flow Pattern
By: Ashish Harbhajanka

Introduction

Some of us might be aware of the various different ways to loading data into Oracle HCM Cloud which are:

1) HCM Data Loader
2) HCM Spreadsheet Data Loader
3) Via Web Service Call (Webservice / REST)
4) Data Entry from UI

And also "**Inbound Interface HCM Extract**".

Inbound Interface HCM Extract which is also sometime referred as **Loopback Interface** is a process where Data is generated by "HCM Extracts" and after making some modification on the generated data (applying transformation / business logic on eText Template) is loaded back into the application (and all this with mere submission of the "HCM Extracts").

So far so good but many a times one would like to have data generated via other data source (say BIP , OTBI etc) and still intend to load data into application back. For such scenarios we can use this method which I am going to refer from now on as "**Generate and Load Data**".

"**Generate and Load Data**" sounds similar to "**Import and Load Data**" and yes it is a little bit and that is why I have try to give such a name, but before proceeding further I would explain what is meant by "**Generate and Load Data**".

Generate Load and Report Data

No, this is not a delivered task/flow in the Oracle HCM Cloud Application (at least not till Release 13 20B) but is being referred to a custom payroll flow pattern which will comprise of the following flow-tasks:

1) Generate Data
2) Generate HCM Data Loader File
3) Initiate HCM Data Loader
4) Trigger HDL Error Report

Generate Data

Generate Data is a custom payroll task (after renaming "Run BI Publisher Report"). This particular task runs a BIP Report which generates a TXT file and loads the same into Web Center Content (UCM Server) by using Bursting Option.

Generate HCM Data Loader File

This flow task is a sub-task of "Load Data From File" which takes Content ID (yes the file must be available in UCM) , Transformation Formula (Fast Formula of **HCM Data Loader** Type) and Process Configuration Group (required to submit any process flow) and generates a new File and places the same in the UCM Server

Initiate Data Loader

This flow task is also a sub-task of "Load Data From File" which take the output generated by "Generate HCM Data Loader File" and then initiates the Data Loader process

Trigger HDL Error Report

Generate Data is a custom payroll task (after renaming "Run BI Publisher Report"). This particular task runs a HDL Error Report (BIP Report which generates a XLSX file).

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So this is a brief description about the various tasks which would be used while creating the Custom Payroll Flow Task namely “Generate and Load Data”.

We would need to perform below steps prior to creating “Generate and Load Data”

1) Create BIP Report which will generate TXT File and place the same in UCM Server using BIP Bursting
2) Create a “HCM Data Loader” type Fast Formula.

So, without further ado let’s get started.

Creating BIP Report

For this example we will create a simple BIP report which will generate the data fields required for PersonAccrualDetail Business Object.

Details about the data fields is as below

Attribute Name	Attribute Value	Meaning
AccrualType	‘ADJOTH’	Choose any of the available Accrual Type
AdjustmentReason	‘SICK_ADJ’	Custom Lookup Code defined ANC_ABS_PLAN_OTHER_REASONS Lookup
PersonNumber	PER_ALL_PEOPLE_F.PERSON_NUMBER	Person Number
PlanName	ANC_ABSENCE_PLANS_F_TL.NAME	Absence Plan Name on which adjustment entry will be added
Value	5	Value to be Adjusted (7 for this example)
WorkTermsNumber	PER_ALL_ASSIGNMENTS_M.ASSIGNMENT_NUMBER	Assignment Number of the Employment Terms Record from Assignment Table
ProcdDate	SYSDATE	Date on which adjustment is to be made. Sysdate for this example
SourceSystemOwner	HRC_LEGACY	Custom Lookup Code defined in HRC_SOURCE_SYSTEM_OWNER Lookup
SourceSystemId	PER_ALL_PEOPLE_F.PERSON_NUMBER || '_' || upper(ANC_ABSENCE_PLANS_F_TL.NAME) || '_' || 'SICK_ADJ' || '_' || TO_CHAR(SYSDATE,'YYYYMMDD')	Unique ID required for HDL Load

We would need to create a Data Model which will have 2 Data Sets and 1 Bursting Query

FlowTask_ds

This is the master data set (primarily used to associate the BIP Report run with the Payroll Flow task we are going to generate in later part). This data set returns the PAY_REQUEST CALL_ID which is

used to allow the BIP report to Burst to a single file. In addition, the CALL_ID is used to uniquely identify the BIP report once it is uploaded to UCM.

SQL for FlowTask_ds

```
select r.call_id
from pay_flow_task_instances fti,
,pay_flow_tasks_vl ft
,pay_requests r
where ft.flow_task_name = 'Generate Data'
and ft.base_flow_task_id = fti.base_flow_task_id
and fti.flow_task_instance_id = r.flow_task_instance_id
and r.call_type= 'ESS'
and  fti.flow_task_instance_id = :TASK_INSTANCE_ID
union
select 1234
from dual
where :TASK_INSTANCE_ID is null
```

GenerateData_ds

This is the data set which would generate the data which will be used for Data Load. For this example it would fetch the Adjustment Details which would be loaded to a specific plan

SQL for Generate_ds

```
select  'ADJOTH' ACCRUALTYPE,
       'SICK_ADJ' ADJUSTMENTREASON,
                  papf.person_number PERSONNUMBER,
              aapft.name PLANNAME,
                  7 VALUE,
                   (select distinct paam1.assignment_number
                    from   per_all_assignments_m paam1
                    where  paam1.assignment_type = 'ET'
                    and    paam1.primary_flag = 'N'
                    and    trunc(ppos.date_start) between paam1.effective_start_date and
paam1.effective_end_date
                    and    paam1.period_of_service_id = ppos.period_of_service_id
                    and    paam1.person_id = papf.person_id
                    and    rownum = 1
                    ) WORKTERMSNUMBER,
                   to_char(SYSDATE,'YYYY/MM/DD') PROCDDATE,
                   'HRC_LEGACY' SOURCESYSTEMOWNER,
                   papf.person_number || '_' || upper(aapft.name) || '_' || 'SICK_ADJ' || '_' ||
TO_CHAR(SYSDATE,'YYYYMMDD') SOURCESYSTEMID
from   per_all_people_f papf,
      per_periods_of_service ppos,
      anc_absence_plans_f_tl aapft,
            per_all_assignments_m paam,
            anc_per_plan_enrollment appe
where  papf.person_id = paam.person_id
and    papf.person_id = ppos.person_id
and    ppos.period_of_service_id = paam.period_of_service_id
and    appe.prd_of_svc_id = paam.period_of_service_id
and    papf.person_id = appe.person_id
AND appe.plan_id = aapft.absence_plan_id
```

```
AND paam.primary_flag = 'Y'
AND paam.assignment_type IN ('E', 'C', 'N', 'P')
AND aapft.language = 'US'
and aapft.name = 'Sick'
and trunc(ppos.date_start) between papf.effective_start_date and papf.effective_end_date
and trunc(ppos.date_start) between paam.effective_start_date and paam.effective_end_date
and trunc(ppos.date_start) between aapft.effective_start_date and aapft.effective_end_date
and not exists
(
select 1
from   anc_per_acrl_entry_dtls apaed,
       anc_absence_plans_f_tl aapft
where apaed.type = 'ADJOTH'
and   apaed.adjustment_reason = 'SICK_ADJ'
and   apaed.pl_id = aapft.absence_plan_id
and   aapft.language = 'US'
and   aapft.name = 'Sick'
and   apaed.person_id = papf.person_id
)
```

BurstToUCM

The bursting query will result in a file being sent to UCM. The CONTENT_ID of the file will be of the form:
'PersonAccrualDetail'||to_char(CALL_ID) where CALL_ID is unique to the specific instance of the process.

The Title of the file in UCM will be of the form: 'PersonAccrualDetail'||to_char(CALL_ID)

SQL Query for BurstToUCM

```
select to_char(call_id) as "KEY",
'PersonAccrualDetail' TEMPLATE,
'en-US' LOCALE,
'TEXT' OUTPUT_FORMAT,
'WCC' DEL_CHANNEL,
'FA_UCM_PROVISIONED' PARAMETER1,
          /* Server Name */
'FAFusionImportExport' PARAMETER2,
          /* Security Group */
:xdo_user_name PARAMETER3,
                /* Author of the File */
'PersonAccrualDetail'||to_char(call_id) PARAMETER5,          /* Title */
'PersonAccrualDetail.dat' PARAMETER6,       /* Output File Name */
:TASK_INSTANCE_ID PARAMETER7,                               /* Comments (Optional) */
'PersonAccrualDetail'||to_char(call_id) PARAMETER8,                          /* Content ID
(Optional) If you specify the ID, it must be unique. If you don't specify the ID, the system generates
a unique one. */
'FALSE' PARAMETER9
                          /* Custom metadata (true/false). Specify ‘false’. */
from
(
select r.call_id
from pay_flow_task_instances fti
```

```
,pay_flow_tasks_vl ft
,pay_requests r
where ft.flow_task_name = 'Generate Data'
and ft.base_flow_task_id = fti.base_flow_task_id
and fti.flow_task_instance_id = r.flow_task_instance_id
and r.call_type= 'ESS'
and  fti.flow_task_instance_id = :TASK_INSTANCE_ID
union
select 1234
from dual
where :TASK_INSTANCE_ID is null
)
```

BIP Report EText Template

We would need to have a EText Template attached to the Report such that it gives data in pipe delimited way. The EText used in this example looks as below:

Initial Adjustment Person Accrual Detail - Template

Format Setup:

<TEMPLATE_TYPE>	DELIMITER_BASED
<OUTPUT CHARACTER SET>	ASCII
<NEW RECORD CHARACTER>	Carriage Return

Format Data Records:

<LEVEL>	G_2

<NEW RECORD>	DISCRETIONARY_DISBURSEMENT			
<DISPLAY CONDITION>	1=1			
<MAXIUMUM LENGTH>	<FORMAT>	<DATA>	<TAG>	<COMMENTS>
100	Alpha	ACCRUALTYPE		AccrualType
1	Alpha	'|'		
100	Alpha	ADJUSTMENTREASON		AdjustmentReason
1	Alpha	'|'		
100	Alpha	PERSONNUMBER		PersonNumber
1	Alpha	'|'		
100	Alpha	PLANNAME		PlanName
1	Alpha	'|'		
100	Alpha	VALUE		Value
1	Alpha	'|'		
100	Alpha	WORKTERMSNUMBER		WorkTermsNumber
1	Alpha	'|'		
100	Date, YYYY/MM/DD	PROCDDATE		ProcdDate
1	Alpha	'|'		
100	Alpha	SOURCESYSTEMOWNER		SourceSystemOwner
1	Alpha	'|'		
100	Alpha	SOURCESYSTEMID		SourceSystemId

<END LEVEL>	G_2

And once we upload the template and try to run the report data should appear as below:

Generate Load and Report Data Using Custom Payroll Flow Pattern
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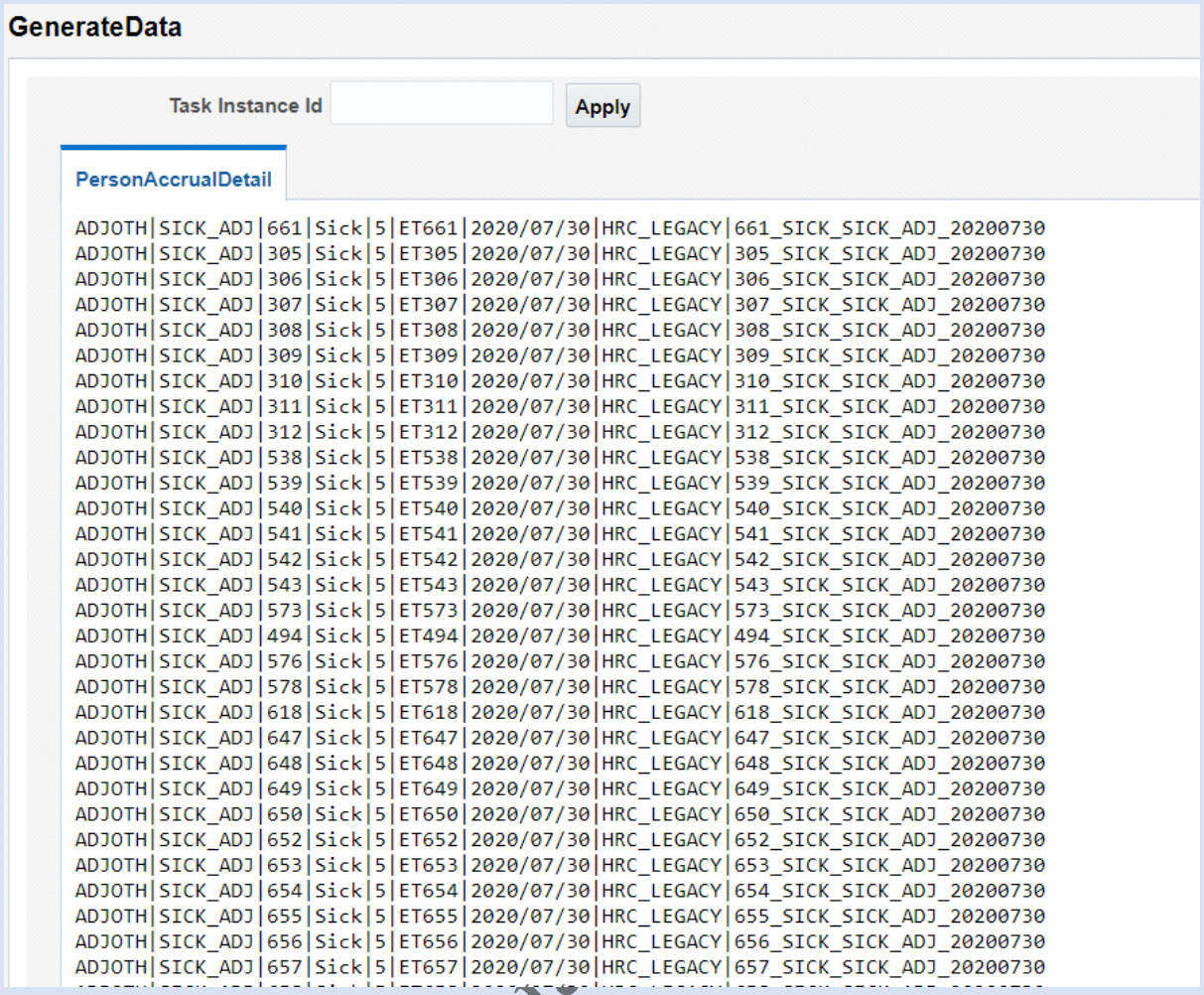


Next, we will need to create a Fast Formula of "HCM Data Loader" Type.

Create Transformation Formula of HCM Data Loader Type

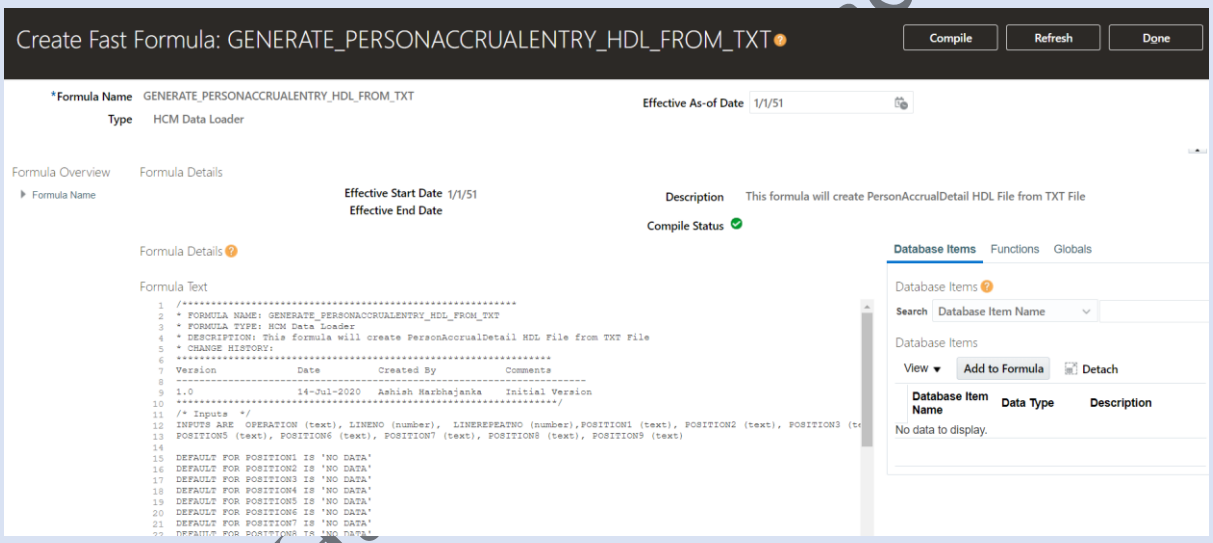
As a next step we would need to create a Fast Formula which will take the above file and convert it in into corresponding HDL File. (GENERATE_PERSONACCRUALENTRY_HDL_FROM_TXT)

Fast Formula (GENERATE_PERSONACCRUALENTRY_HDL_FROM_TXT) Text

```
/**********************************************************
*
* FORMULA NAME: GENERATE_PERSONACCRUALENTRY_HDL_FROM_TXT
* FORMULA TYPE: HCM Data Loader
* DESCRIPTION: This formula will create PersonAccrualDetail HDL File from TXT File
* CHANGE HISTORY:
**********************************************************************
Version          Date          Created By          Comments
----------------------------------------------------------------------
1.0              14-Jul-2020   Ashish Harbhajanka   Initial Version
**********************************************************************/
/* Inputs  */
INPUTS ARE  OPERATION (text), LINENO (number),  LINEREPEATNO
(number),POSITION1 (text), POSITION2 (text), POSITION3 (text), POSITION4 (text),
POSITION5 (text), POSITION6 (text), POSITION7 (text), POSITION8 (text), POSITION9 (text)
```

```
DEFAULT FOR POSITION1 IS 'NO DATA'
DEFAULT FOR POSITION2 IS 'NO DATA'
DEFAULT FOR POSITION3 IS 'NO DATA'
DEFAULT FOR POSITION4 IS 'NO DATA'
DEFAULT FOR POSITION5 IS 'NO DATA'
DEFAULT FOR POSITION6 IS 'NO DATA'
DEFAULT FOR POSITION7 IS 'NO DATA'
DEFAULT FOR POSITION8 IS 'NO DATA'
DEFAULT FOR POSITION9 IS 'NO DATA'
DEFAULT FOR LINEREPEATNO IS 1

IF OPERATION='FILETYPE' THEN
  OUTPUTVALUE='DELIMITED'
ELSE IF OPERATION='DELIMITER' THEN
  OUTPUTVALUE='|'
ELSE IF OPERATION='READ' THEN
  OUTPUTVALUE='NONE'
ELSE IF OPERATION = 'NUMBEROFBUSINESSOBJECTS' THEN
  (
  OUTPUTVALUE = '1'
  RETURN OUTPUTVALUE
  )
ELSE IF OPERATION = 'METADATALINEINFORMATION' THEN
   (
                METADATA1[1]  = 'PersonAccrualDetail' /*FileName*/ /*Reserved*/
                METADATA1[2]  = 'PersonAccrualDetail' /*FileDiscriminator*/ /*Reserved*/
                METADATA1[3]  = 'AccrualType'
                METADATA1[4]  = 'AdjustmentReason'
                METADATA1[5]  = 'PersonNumber'
                METADATA1[6]  = 'PlanName'
                METADATA1[7]  = 'Value'
                METADATA1[8]  = 'WorkTermsNumber'
                METADATA1[9]  = 'ProcdDate'
                METADATA1[10] = 'SourceSystemOwner'
                METADATA1[11] = 'SourceSystemId'

RETURN METADATA1
)

ELSE IF OPERATION='MAP' THEN
   /*HDL Related Outputs*/
  (
                IF LINEREPEATNO = 1 THEN
                (
                        IF POSITION3 <> 'PersonNumber' THEN
                        (
                                LINEREPEAT = 'Y'
                                FileName = 'PersonAccrualDetail'
                                BusinessOperation = 'MERGE'
                                FileDiscriminator = 'PersonAccrualDetail'
                                AccrualType = trim(POSITION1)
                                AdjustmentReason = trim(POSITION2)
                                PersonNumber = trim(POSITION3)
                                PlanName = trim(POSITION4)
                                Value = trim(POSITION5)
```

```
                                WorkTermsNumber = trim(POSITION6)
                                ProcdDate = trim(POSITION7)
                                SourceSystemOwner = trim(POSITION8)
                                SourceSystemId = trim(POSITION9)


                                RETURN
BusinessOperation,FileName,FileDiscriminator,AccrualType,AdjustmentReason,PersonNumber,Pl
anName,Value,WorkTermsNumber,ProcdDate,SourceSystemOwner,SourceSystemId,LINEREPEA
T,LINEREPEATNO
                        )
                )
        )

ELSE
  OUTPUTVALUE='NONE'
RETURN OUTPUTVALUE
/* End Formula Text */
```



Now we will start configuring the Custom Payroll Flow Pattern named “Generate and Load Data”

Creating Custom Payroll Flow Pattern “Generate Load and Report Data”

Navigation-> ***My Client Groups -> Payroll ->(Administration) Payroll Flow Patterns -> Copy (Load Data from File)***

Once we copy the flow from “Load Data From File” we should give a new name to the custom flow (“Generate Load and Report Data”) and once done we should add a new task name “Run BI Publisher Report” and rename to “Generate Data” as shown

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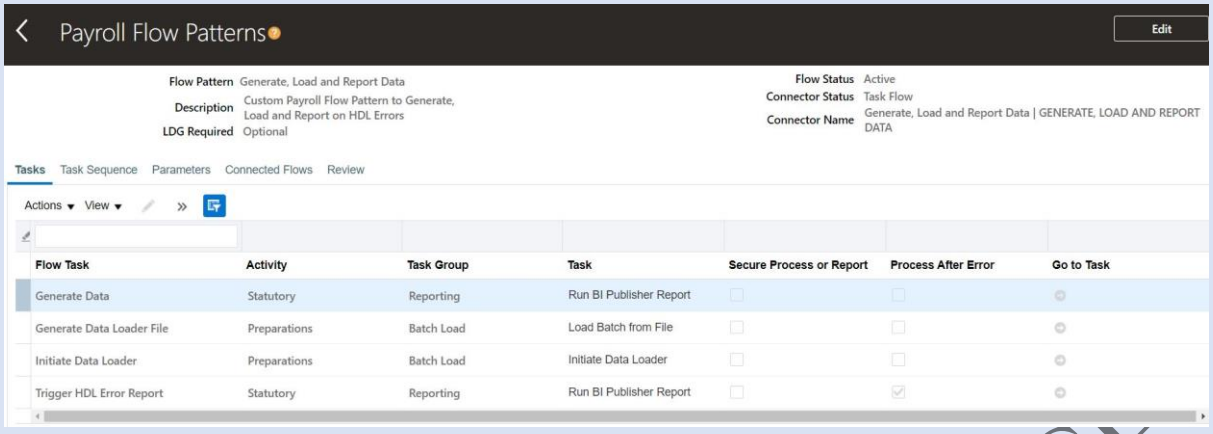
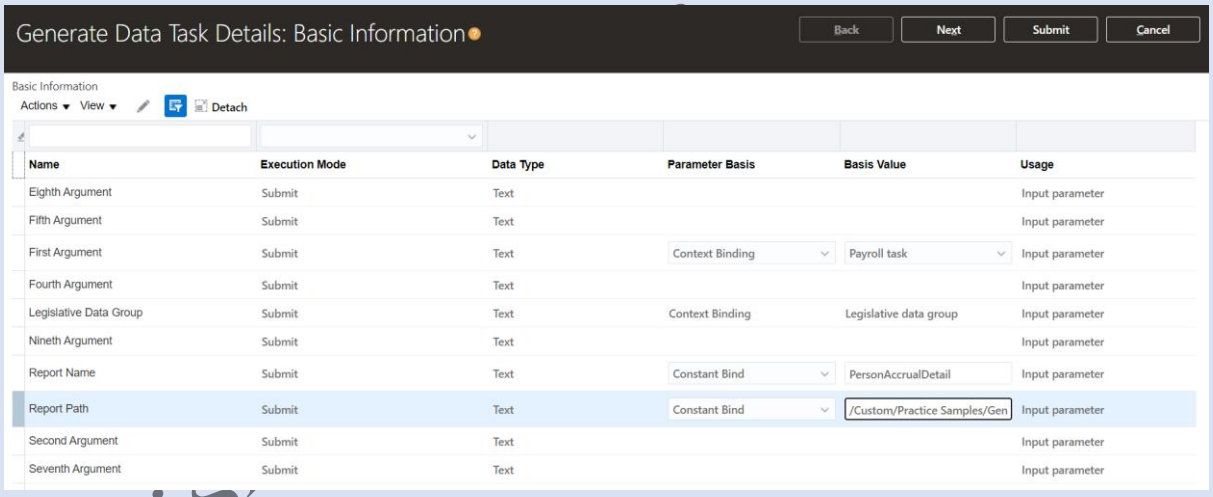


We will now need to set/edit the properties of "Generate Data" Task (once you click on the "Go To Task" you would be taken to the parameters page. The details of the parameters are mentioned below

Name	Parameter Basis	Basis Value
First Argument	Context Binding	Payroll Task
Legislative Data Group	Context Binding	Legislative data group
Report Name	Constant Bind	PersonAccrualDetail
Report Path	Constant Bind	/Custom/Practice Samples/GenerateData.xdo

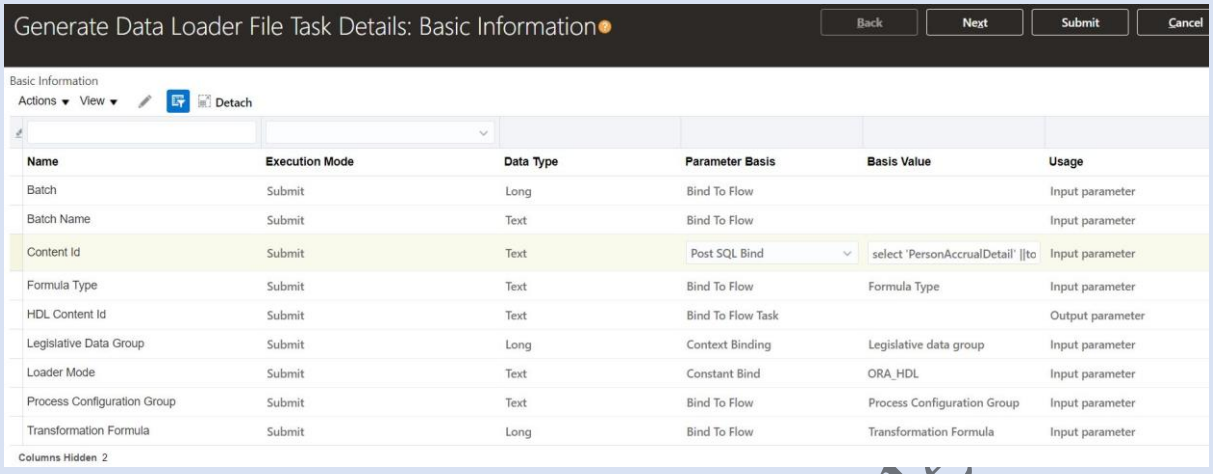
*Note: Report Name is the name of the Template used in Report



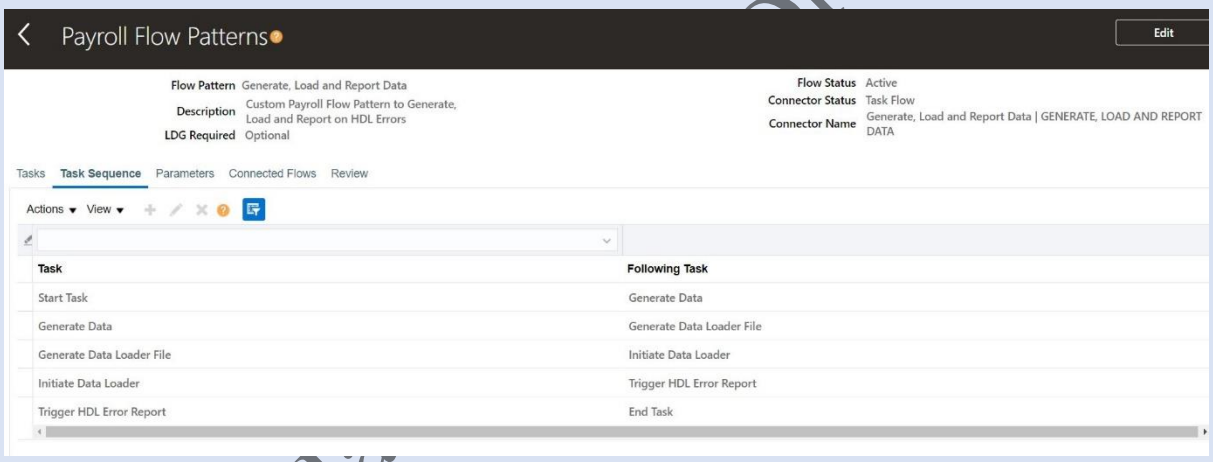
Nest we would be required to change the Parameter properties of "Content ID" parameter of "Generate Data Loader File" Task

Old Value		
Name	Parameter Basis	Value
Content Id	Bind To Flow	Content Id
New Value		
Name	Parameter Basis	Value
Content Id	Post SQL Bind	select 'PersonAccrualDetail'||to_char(CALL_ID) from pay_flow_task_instances fti,pay_flow_tasks_vl ft,pay_requests r where ft.flow_task_name = 'Generate Data' and ft.base_flow_task_id = fti.base_flow_task_id and fti.flow_task_instance_id = r.flow_task_instance_id and

		r.call_type= 'ESS' and fti.flow_instance_id = :pFlowInstanceId



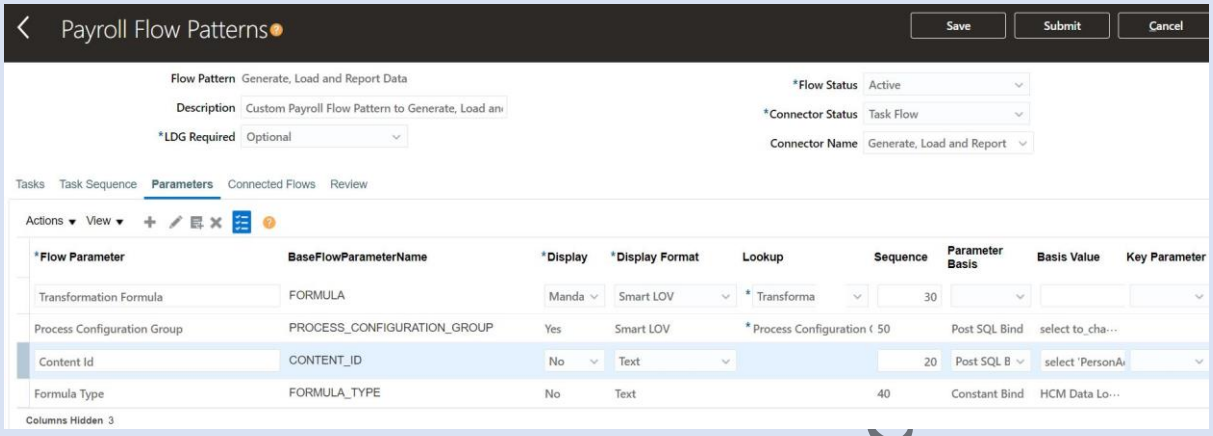
Now, we should arrange the Task Sequence as show in below image:



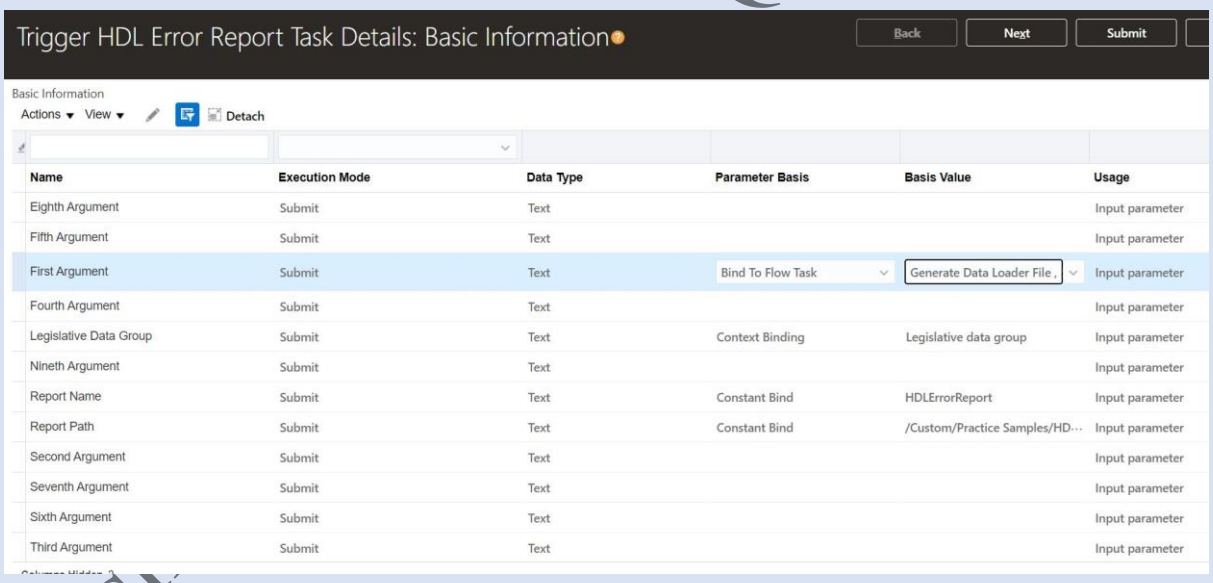
We will also need to change the properties of "Content Id" parameter of payroll flow

Old Value			
*Flow Parameter	Display	Parameter Basis	Basis Value
Content Id	Mandatory		
New Value			
*Flow Parameter	Display	Parameter Basis	Basis Value
Content Id	No	Post SQL Bind	select 'PersonAccrualDetail' ||to_char(r.call_id) from pay_flow_task_instances fti, pay_flow_tasks_vl ft, pay_requests r where ft.flow_task_name = 'Generate Data' and ft.base_flow_task_id = fti.base_flow_task_id

			and fti.flow_task_instance_id = r.flow_task_instance_id and r.call_type= 'ESS' and fti.flow_instance_id = :pFlowInstanceId



We would also need to make sure that the "First Argument" parameter for "Trigger HDL Error Report" is set to "Generate Data Loader File, Submit, HDL Content ID"



Now as a last part of the setup we should check that the "Enable Bursting" Flag under ***Report->Properties (of Generate Data Report)*** is set

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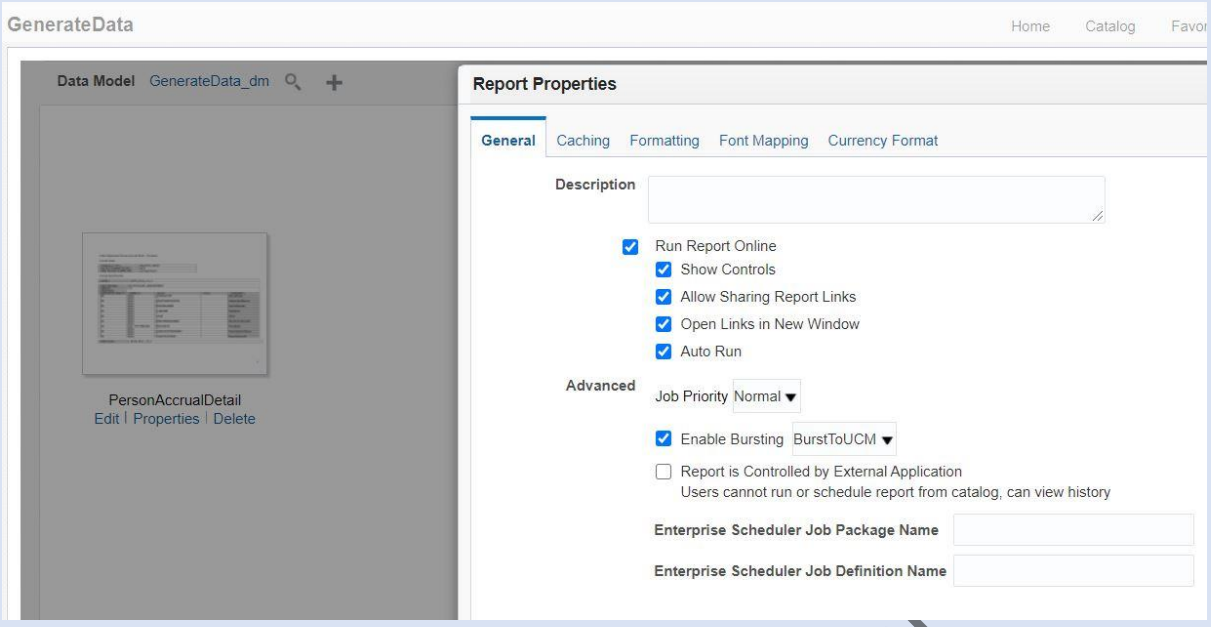


We would also need to enable bursting for the HDL Error Report

SQL used for HDLErrorReport

```
SELECT '001' report_key, fr.key_source_owner, fr.key_source_id, l.msg_text
  ,SUBSTR(fl.TEXT,INSTR(fl.TEXT,'|',1,2)+1,INSTR(fl.TEXT,'|',1,3)-INSTR(fl.TEXT,'|',1,2)-1)
"CONTEXT"
  ,fl.TEXT
  FROM   fusion.hrc_dl_message_lines    l
  ,      fusion.hrc_dl_data_set_bus_objs  bo
  ,      fusion.hrc_dl_data_sets         ds
  ,      fusion.hrc_dl_stg_physical_lines    pl
  ,      fusion.hrc_dl_stg_file_rows         fr
  ,      fusion.hrc_dl_file_lines        fl
  WHERE  l.message_source_table_name = 'HRC_DL_PHYSICAL_LINES'
  AND    bo.data_set_bus_obj_id      = l.data_set_bus_obj_id
  AND    ds.data_set_id              = bo.data_set_id
  AND    pl.physical_line_id                 = l.message_source_line_id
  AND    fr.row_id                           = pl.row_id
  AND    fl.line_id                          = fr.line_id
  AND   (ds.ucm_content_id = :p_ucm_content_id
                OR ds.data_set_name = :p_data_set_name)
  --
  UNION
  --
  SELECT '001' report_key,fr.key_source_owner, fr.key_source_id, l.msg_text
  ,SUBSTR(fl.TEXT,INSTR(fl.TEXT,'|',1,2)+1,INSTR(fl.TEXT,'|',1,3)-INSTR(fl.TEXT,'|',1,2)-1)
"CONTEXT"
  ,fl.TEXT
  FROM   fusion.hrc_dl_message_lines    l
  ,      fusion.hrc_dl_data_set_bus_objs  bo
  ,      fusion.hrc_dl_data_sets         ds
  ,      fusion.hrc_dl_stg_logical_lines     ll
  ,      fusion.hrc_dl_stg_file_rows         fr
  ,      fusion.hrc_dl_file_lines        fl
```

```
  WHERE  l.message_source_table_name = 'HRC_DL_LOGICAL_LINES'
  AND    bo.data_set_bus_obj_id      = l.data_set_bus_obj_id
  AND    ds.data_set_id              = bo.data_set_id
  AND    ll.logical_line_id                    = l.message_source_line_id
  AND    fr.logical_line_id                    = ll.logical_line_id
  AND    fl.line_id                            = fr.line_id
  AND   (ds.ucm_content_id = :p_ucm_content_id
                  OR ds.data_set_name = :p_data_set_name)
  --
  UNION
  --
SELECT '001' report_key,fr.key_source_owner, fr.key_source_id, l.msg_text
  ,SUBSTR(fl.TEXT,INSTR(fl.TEXT,'|',1,2)+1,INSTR(fl.TEXT,'|',1,3)-INSTR(fl.TEXT,'|',1,2)-1)
"CONTEXT"
  ,fl.TEXT
  FROM   fusion.hrc_dl_message_lines     l
  ,      fusion.hrc_dl_data_set_bus_objs  bo
  ,      fusion.hrc_dl_data_sets          ds
  ,      fusion.hrc_dl_stg_file_rows             fr
  ,      fusion.hrc_dl_file_lines       fl
  WHERE  l.message_source_table_name = 'HRC_DL_FILE_ROWS'
  AND    bo.data_set_bus_obj_id      = l.data_set_bus_obj_id
  AND    ds.data_set_id              = bo.data_set_id
  AND    fr.row_id                                    = l.message_source_line_id
  AND    fl.line_id                            = fr.line_id
  AND   (ds.ucm_content_id = :p_ucm_content_id
                  OR ds.data_set_name = :p_data_set_name)
   --
   UNION
   ---
   SELECT '001' report_key, fr.key_source_owner, fr.key_source_id, l.msg_text
  ,SUBSTR(fl.TEXT,INSTR(fl.TEXT,'|',1,2)+1,INSTR(fl.TEXT,'|',1,3)-INSTR(fl.TEXT,'|',1,2)-1)
"CONTEXT"
  ,fl.TEXT
  FROM   fusion.hrc_dl_message_lines    l
  ,      fusion.hrc_dl_data_set_bus_objs  bo
  ,      fusion.hrc_dl_data_sets          ds
  ,      fusion.hrc_dl_physical_lines     pl
  ,      fusion.hrc_dl_file_rows      fr
  ,      fusion.hrc_dl_file_lines         fl
  WHERE  l.message_source_table_name = 'HRC_DL_PHYSICAL_LINES'
  AND    bo.data_set_bus_obj_id      = l.data_set_bus_obj_id
  AND    ds.data_set_id              = bo.data_set_id
  AND    pl.physical_line_id       = l.message_source_line_id
  AND    fr.row_id                 = pl.row_id
  AND    fl.line_id                = fr.line_id
  AND   (ds.ucm_content_id = :p_ucm_content_id
    OR ds.data_set_name = :p_data_set_name)
  --
  UNION
  --
  SELECT '001' report_key,fr.key_source_owner, fr.key_source_id, l.msg_text
  ,SUBSTR(fl.TEXT,INSTR(fl.TEXT,'|',1,2)+1,INSTR(fl.TEXT,'|',1,3)-INSTR(fl.TEXT,'|',1,2)-1)
"CONTEXT"
  ,fl.TEXT
```

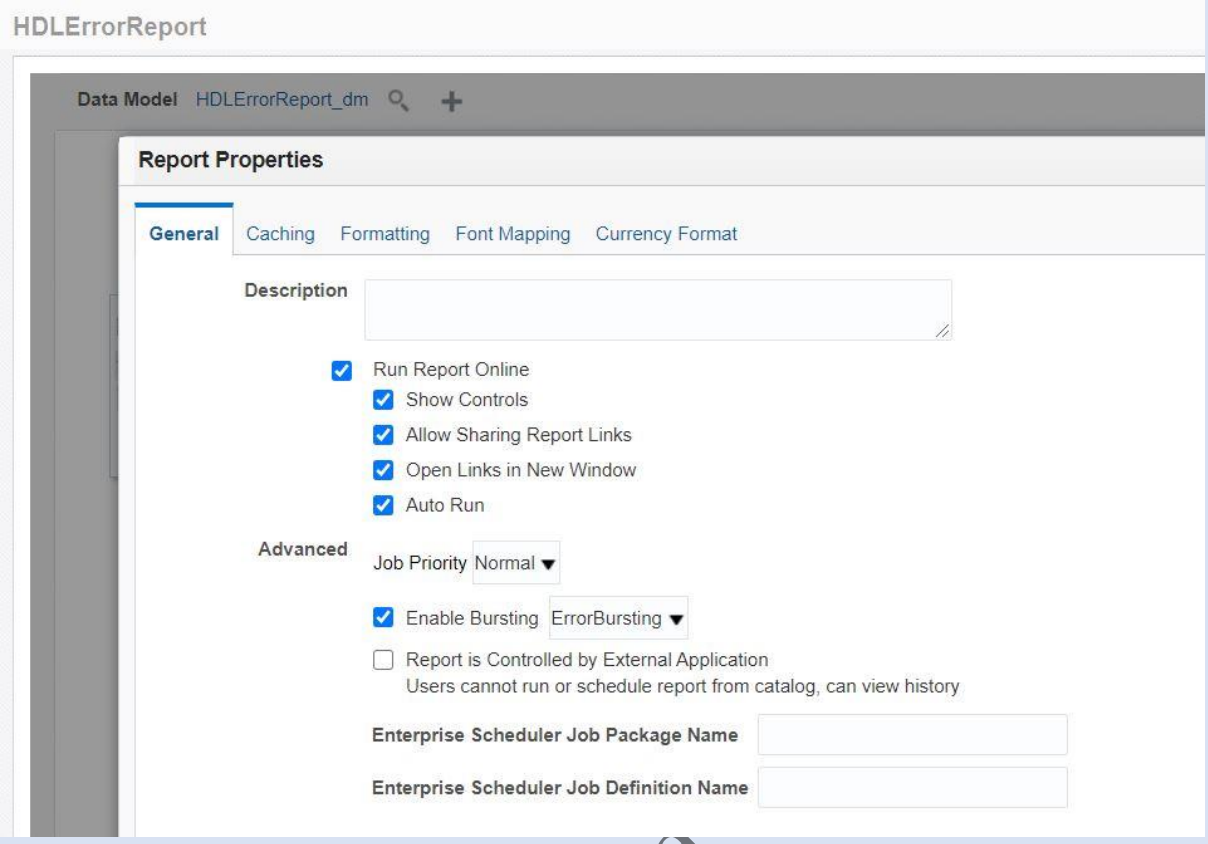
```
  FROM   fusion.hrc_dl_message_lines    l
  ,      fusion.hrc_dl_data_set_bus_objs  bo
  ,      fusion.hrc_dl_data_sets          ds
  ,      fusion.hrc_dl_logical_lines      ll
  ,      fusion.hrc_dl_file_rows          fr
  ,      fusion.hrc_dl_file_lines         fl
  WHERE  l.message_source_table_name = 'HRC_DL_LOGICAL_LINES'
  AND    bo.data_set_bus_obj_id      = l.data_set_bus_obj_id
  AND    ds.data_set_id              = bo.data_set_id
  AND    ll.logical_line_id          = l.message_source_line_id
  AND    fr.logical_line_id          = ll.logical_line_id
  AND    fl.line_id                  = fr.line_id
  AND   (ds.ucm_content_id = :p_ucm_content_id
    OR ds.data_set_name = :p_data_set_name)
  --
  UNION
  --
SELECT '001' report_key,fr.key_source_owner, fr.key_source_id, l.msg_text
  ,SUBSTR(fl.TEXT,INSTR(fl.TEXT,'|',1,2)+1,INSTR(fl.TEXT,'|',1,3)-INSTR(fl.TEXT,'|',1,2)-1)
"CONTEXT"
  ,fl.TEXT
  FROM   fusion.hrc_dl_message_lines    l
  ,      fusion.hrc_dl_data_set_bus_objs  bo
  ,      fusion.hrc_dl_data_sets          ds
  ,      fusion.hrc_dl_file_rows          fr
  ,      fusion.hrc_dl_file_lines         fl
  WHERE  l.message_source_table_name = 'HRC_DL_FILE_ROWS'
  AND    bo.data_set_bus_obj_id      = l.data_set_bus_obj_id
  AND    ds.data_set_id              = bo.data_set_id
  AND    fr.row_id                   = l.message_source_line_id
  AND    fl.line_id                  = fr.line_id
  AND   (ds.ucm_content_id = :p_ucm_content_id
    OR ds.data_set_name = :p_data_set_name)
```

Also the ErrorBursting SQL should be as below:

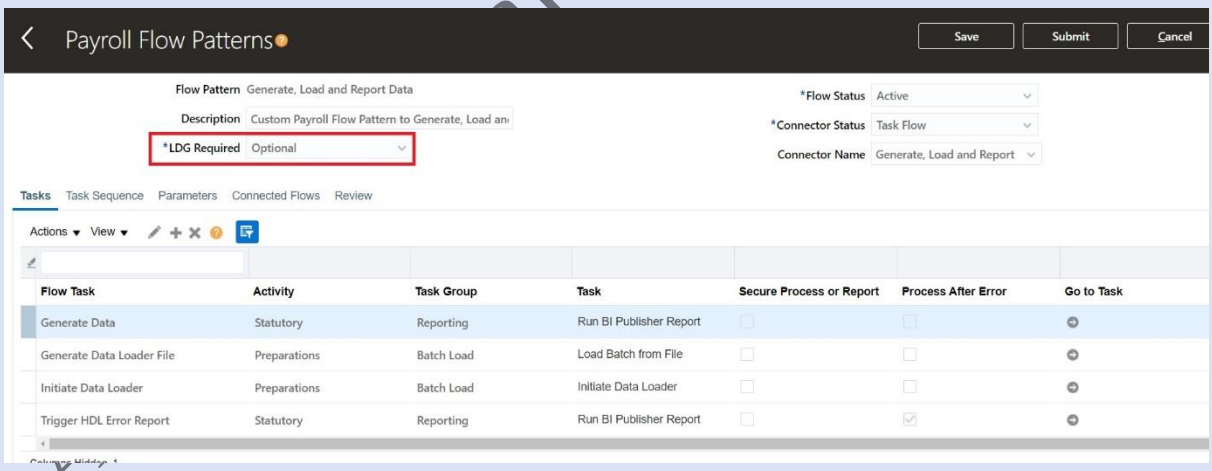
Bursting SQL for HDLErrorReport

```
SELECT '001'  KEY,
'XLSX'                  OUTPUT_FORMAT,
'EMAIL'                 DEL_CHANNEL,
'HDLErrorReport'  OUTPUT_NAME,
'ashish1234u@gmail.com'      parameter1,
'ashish.h.oracle@gmail.com'       parameter2,
'donotreply@oracledemos.com'    parameter3,
'HDL Data Load Error Report'                          parameter4,
'HDL Data Load Error Report.'|| chr(10)|| chr(10) ||'*Note: This is a system generated mail. Please
do not reply.'       parameter5,
'true'         parameter6,
'donotreply@oracledemos.com'   parameter7
FROM
dual
```

Also, bursting should be enabled for HDLErrorReport



As a last step please ensure that the *LDG Required Attribute is set to optional (By default it is set to "Yes". If it is so then the same should be changed as shown below:



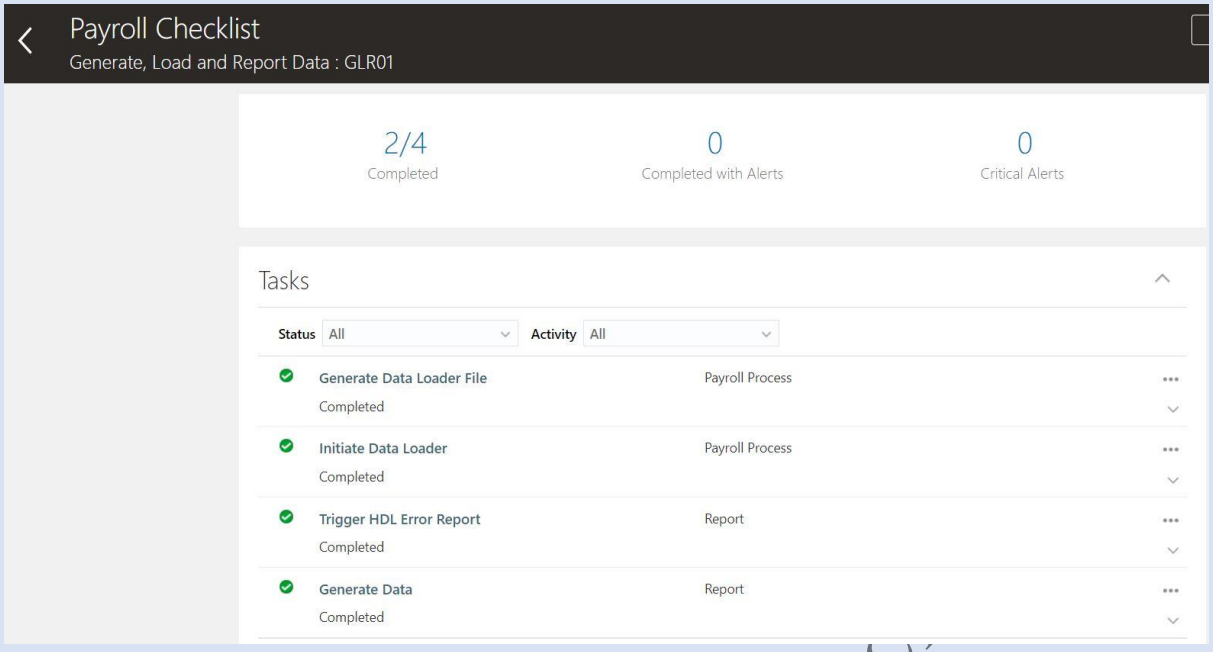
Now, that all setups are done we should try running the payroll flow and verify results

Verification

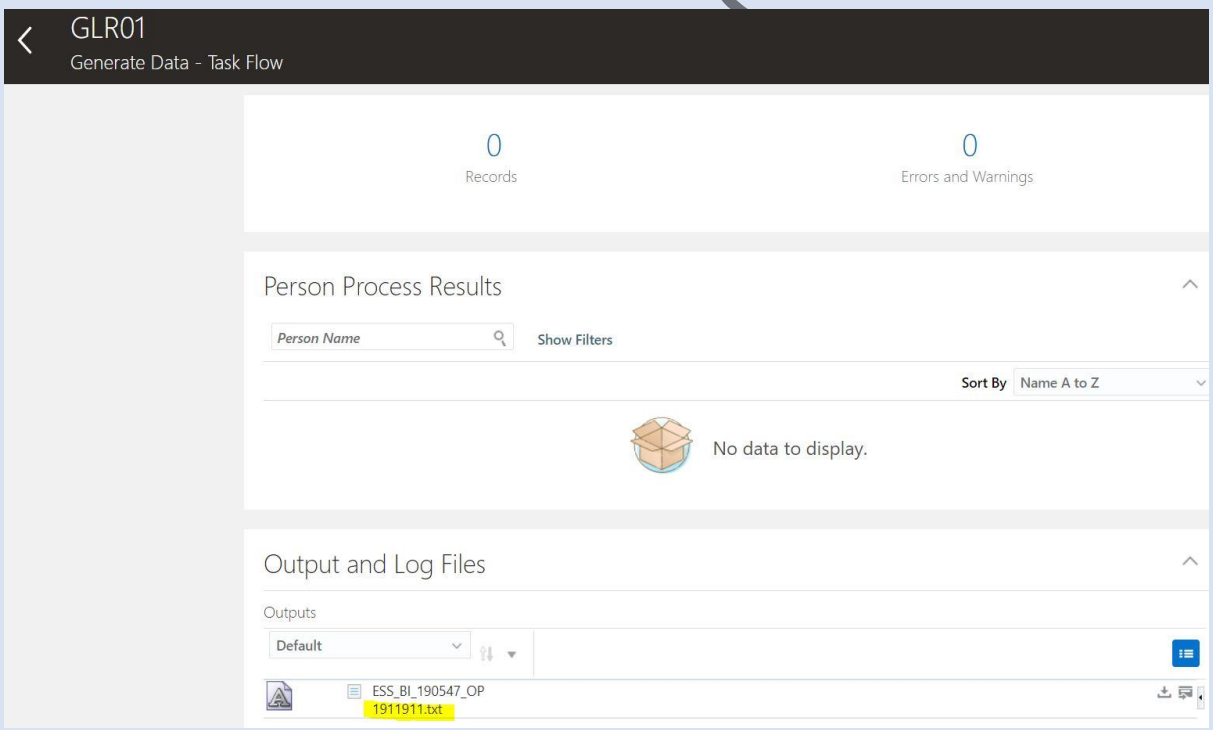
We will submit the newly created Custom Payroll Flow Pattern.

Navigation: My Client Groups -> Payroll-> (Flow Submission and Results) Submit a Flow -> Generate and Load Data

Generate Load and Report Data Using Custom Payroll Flow Pattern
By: Ashish Harbhajanka



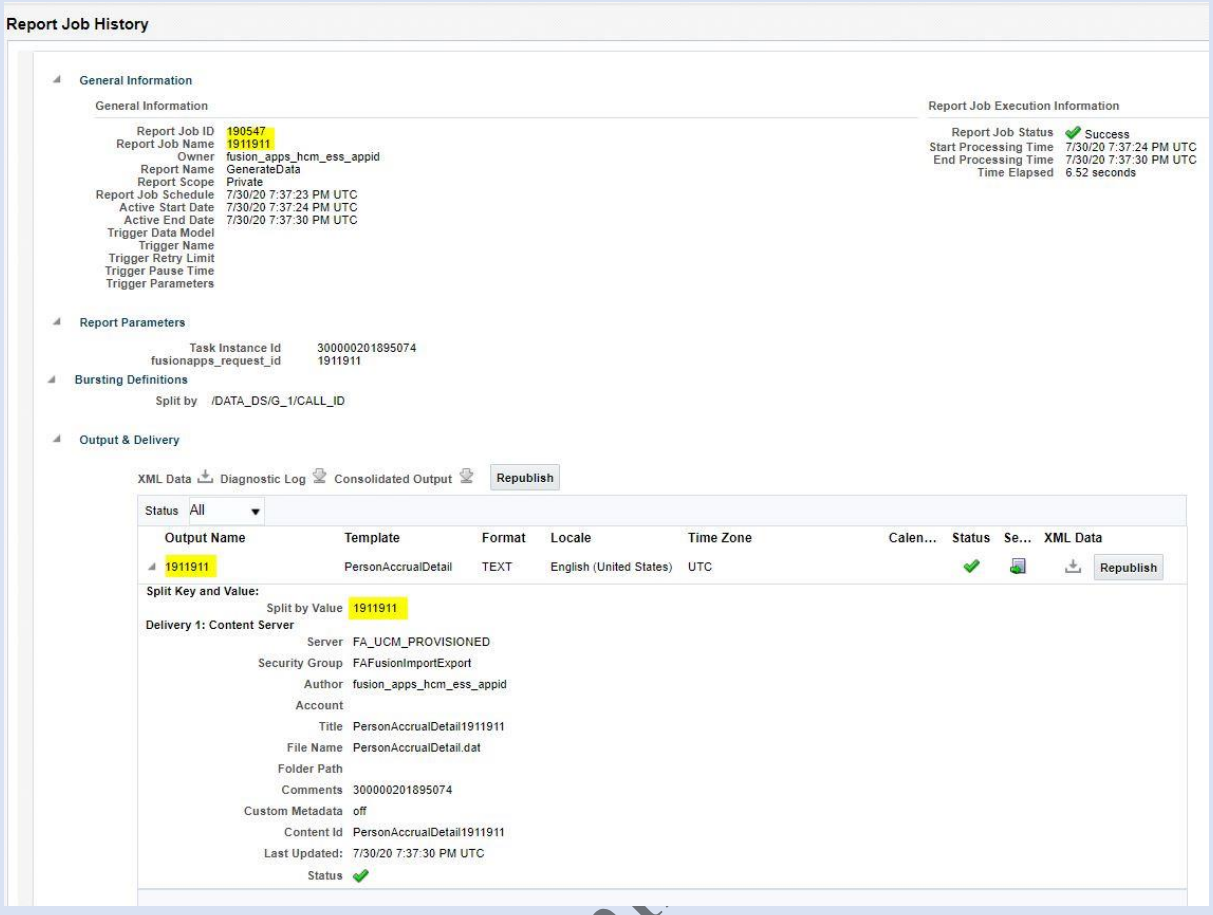
If we click on the "Generate Data" task we will find some details of the ESS process id associated with the task.



We could clearly see that the process-id is 1911911.

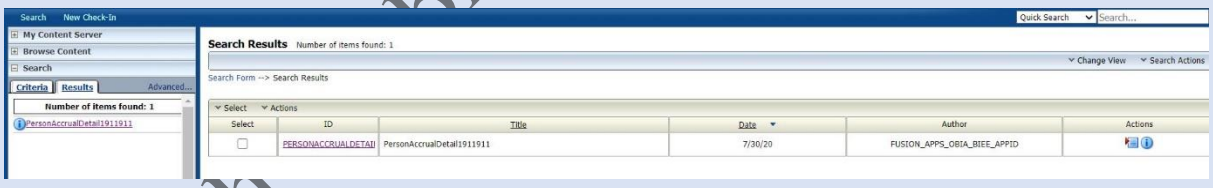
We can search for this ESS request id from BI Report Job history with Job name as 1911911

Generate Load and Report Data Using Custom Payroll Flow Pattern
By: Ashish Harbhajanka



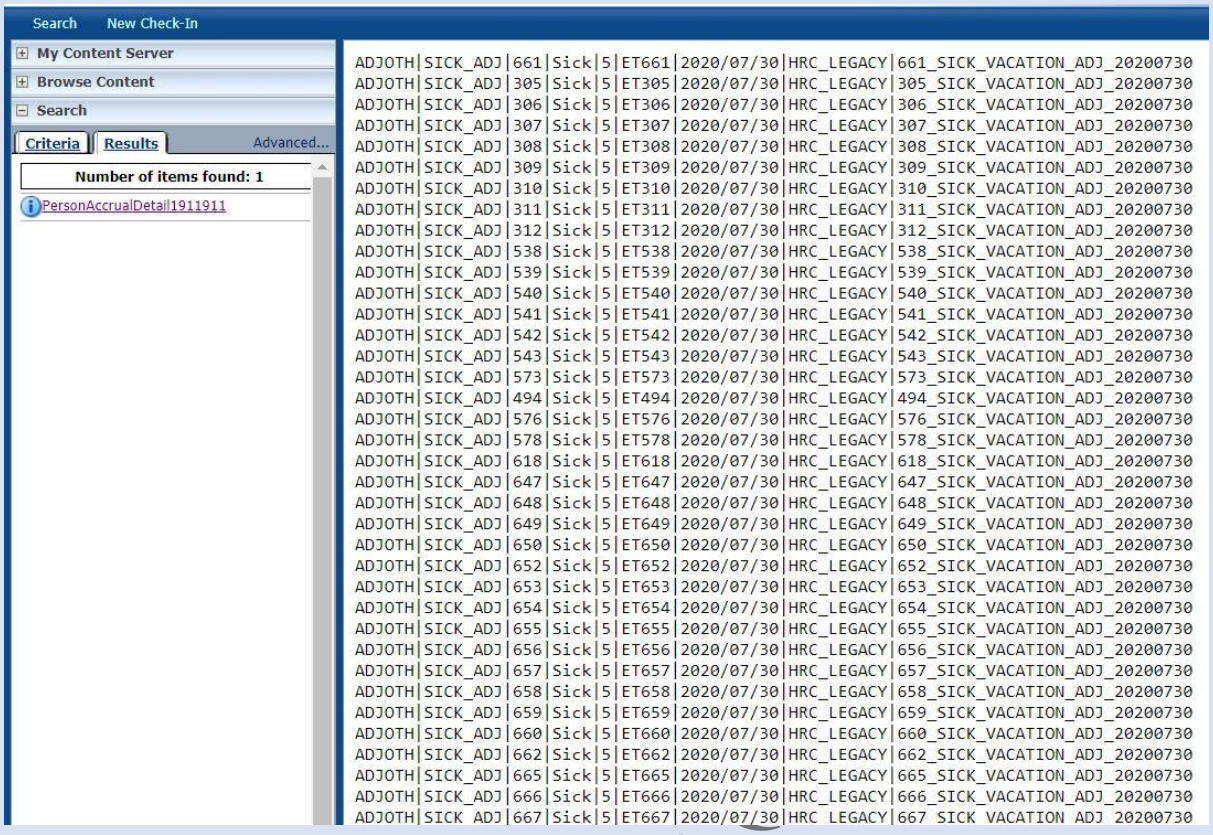
From the above we can see that the Content ID is PersonAccrualDetail1911911

We will search for this content id in Content Server.

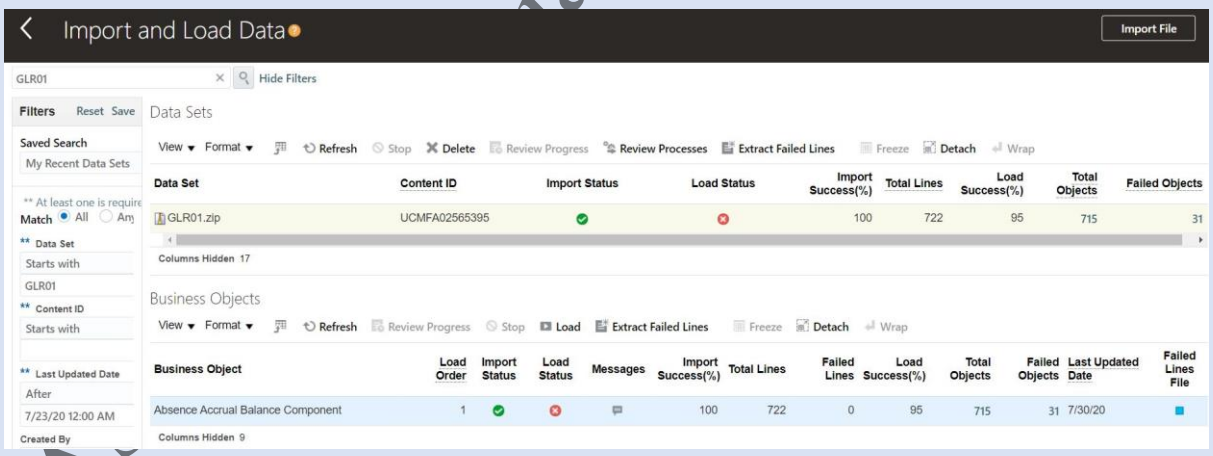


And if we click on the file content detail we could see the content of data file

Generate Load and Report Data Using Custom Payroll Flow Pattern
By: Ashish Harbhajanka

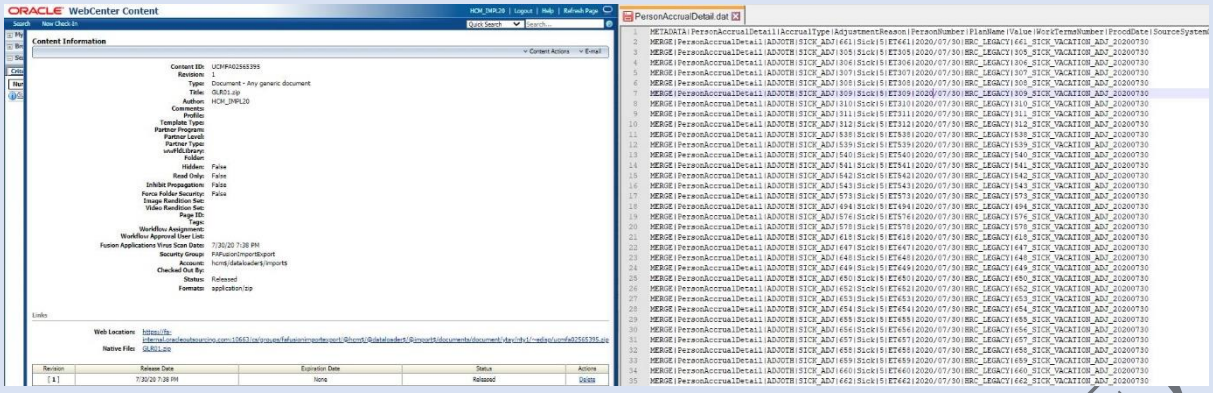


Also we will check the “Import and Load Data” page and we will see that the Data Set name will be same as payroll flow instance name (GLR01 in this example)

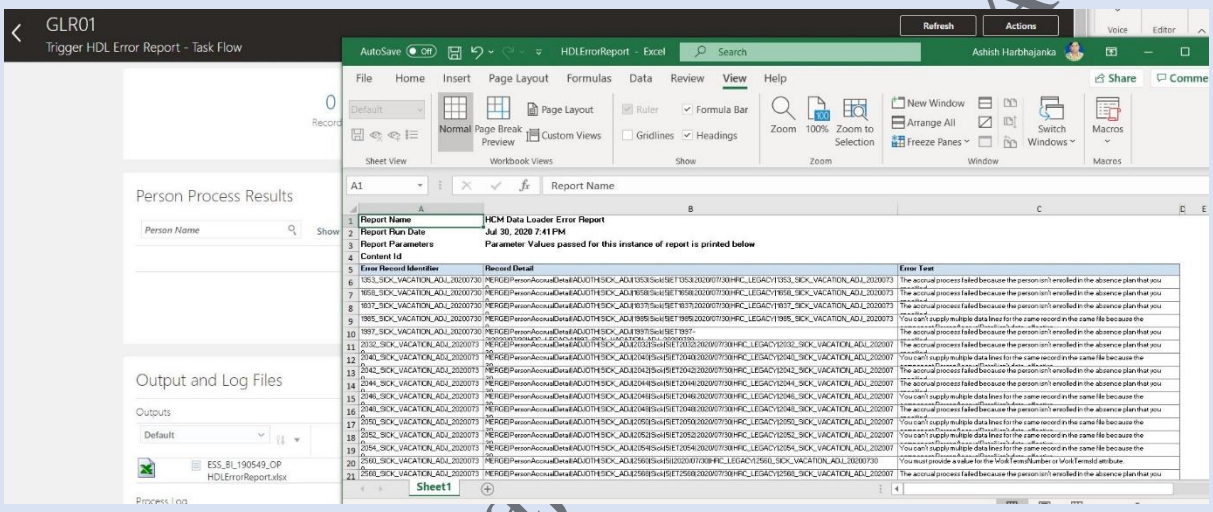


Also we can check the content of GLR01.zip from content server

Generate Load and Report Data Using Custom Payroll Flow Pattern
By: Ashish Harbhajanka



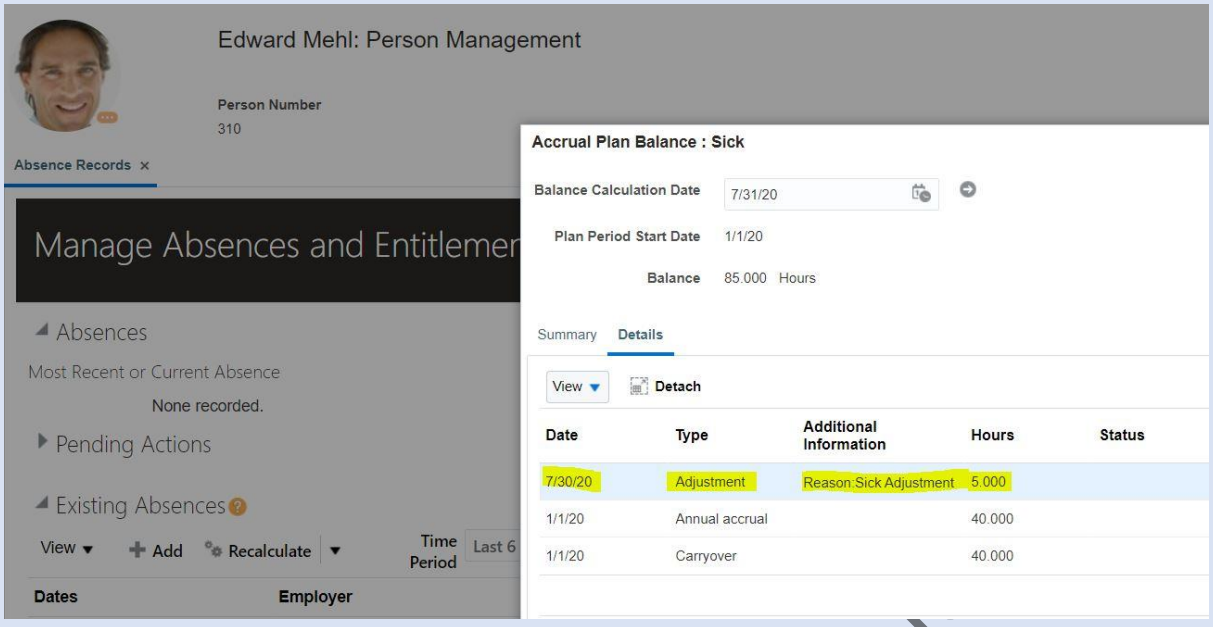
And also, we can quickly check output of "Trigger HDL Error Report" which is an xlsx file



As a last step we will navigate to ***My Client Groups -> Person Management -> Search for a Person (310 for this example) -> Absence -> Manage Absence Records***

And Then check under vacation plan we will see that an adjustment entry with accrual value of 5 has been loaded with effective date as 30/07/2020

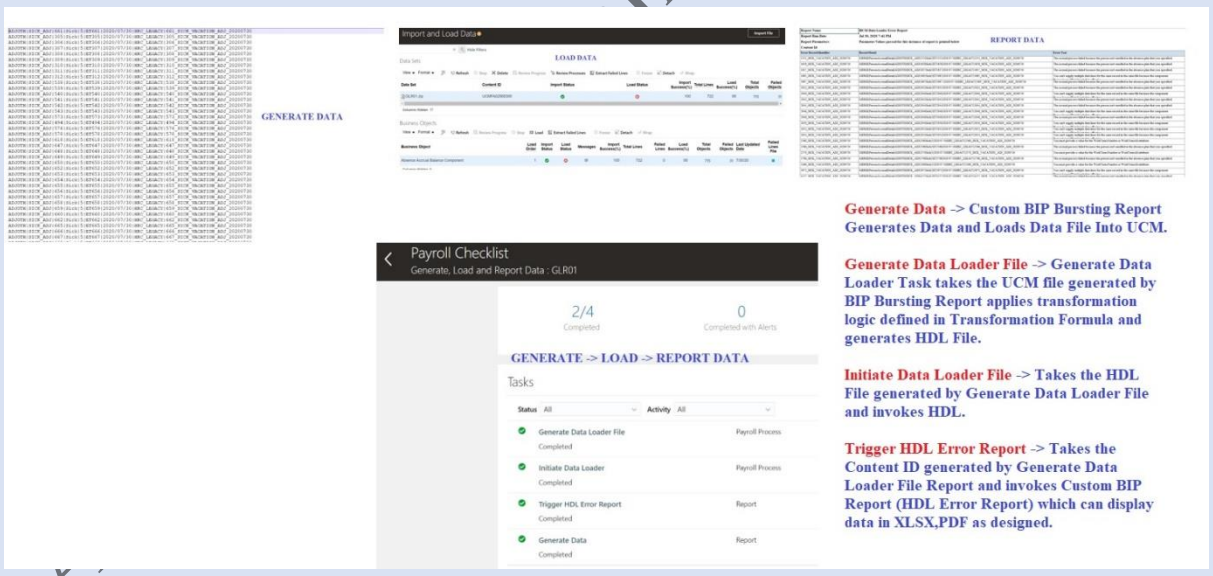
Generate Load and Report Data Using Custom Payroll Flow Pattern
By: Ashish Harbhajanka



Conclusion

So, this is how we can make use of BIP (Bursting Feature) to deliver data to UCM Server which can then be loaded into HCM Application by using of Generate Data Loader Task.

We can summarize the entire step in one image:



One can make the “Generate and Load Data” task more generic by adding two new flow parameters namely report name and report path and use same flow to load different types of data, and with that we have come to the end of this post.

Hope this was a good read.

Thanks for your time and have a nice day ahead.