Tech Module Exercises: 0 / 49

Informatica

* Mini Projects

|  |  |  |
| --- | --- | --- |
| S.No. | Mini-project Description | Topics Covered |
| 1 |  |  |

* + In this TECH Module, you are expected to complete the below Mini-Project(s)
* Topics to Learn

To complete the above project, you will need to lean the below technical topics-

* + **Introduction to Informatica**

Learning Material for **Introduction to Informatica**

Below is the learning material that you are expected to read along with completion of the hands-on assignments. The material is mentioned is the order in which it should be read.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Material Title | Material Location | Type of Material | Classification |
| 1. | Architecture Overview and Components | Informatica\_Chapter 1.pdf | PDF | Mandatory |
| 2. | Architecture Overview and Components | <https://www.guru99.com/informatica-architecture-tutorial.html> | Web | Suggestive |
| 3. | ETL and Informatica | Informatica\_Chapter 2.pdf | PDF | Mandatory |
| 4. | ETL and Informatica | <https://tekslate.com/tutorials/informatica> | Web | Suggestive |
| 5. | ETL and Informatica | <http://learndatamodeling.com/blog/etl-concepts/> | Web | Suggestive |
| 6. | ETL and Informatica | <https://tekslate.com/informatica-components> | Web | Suggestive |
| 7. | Integration Service | Informatica\_Chapter 3.pdf | PDF | Mandatory |
| 8. | Integration Service | <http://dwhlaureate.blogspot.com/2012/08/dtm-data-transformation-manager-process.html> | Web | Suggestive |

* + - Hands-on Assignments for **Introduction to Informatica**
      * No Hands-on Assignments for this topic
  + **Informatica Transformations - I**

Learning Material for **Informatica Transformations - I**

Below is the learning material that you are expected to read along with completion of the hands-on assignments. The material is mentioned is the order in which it should be read.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Material Title | Material Location | Type of Material | Classification |
| 1. | Mapping Designer | Informatica\_Chapter 4.pdf | PDF | Mandatory |
| 2. | Mapping Designer | <https://www.guru99.com/mappings-informatica.html> | Web | Suggestive |
| 3. | Mapping Designer | <https://tekslate.com/tutorials/informatica> | Web | Suggestive |
| 4. | Transformations – Active Vs Passive | Informatica\_Chapter 5.pdf | PDF | Mandatory |
| 5. | Transformations – Active Vs Passive | <https://www.guru99.com/introduction-transformations-informatica-and-filter-transformation.html#1> | Web | Suggestive |
| 6. | Transformations – Active Vs Passive | <https://www.folkstalk.com/2011/12/transformations-in-informatica-9.html> | Web | Suggestive |
| 7. | Filter Transformation | Informatica\_Chapter 6.pdf | PDF | Mandatory |
| 8. | Filter Transformation | <https://www.guru99.com/introduction-transformations-informatica-and-filter-transformation.html#2> | Web | Suggestive |
| 9. | Filter Transformation | <https://www.folkstalk.com/2012/02/filter-transformation-in-informatica.html> | Web | Suggestive |
| 10. | Sorter Transformation | Informatica\_Chapter 7.pdf | PDF | Mandatory |
| 11. | Sorter Transformation | <https://www.folkstalk.com/2012/03/sorter-transformation-in-informatica.html> | Web | Suggestive |
| 12. | Sorter Transformation | <https://tekslate.com/tutorials/informatica> | Web | Suggestive |
| 13. | Aggregator Transformation | Informatica\_Chapter 8.pdf | PDF | Mandatory |
| 14. | Aggregator Transformation | <https://www.guru99.com/aggregator-transformation-informatica.html> | Web | Suggestive |
| 15. | Aggregator Transformation | <https://www.folkstalk.com/2011/12/aggregator-transformation-in.html> | Web | Suggestive |
| 16. | Expression Transformation | Informatica\_Chapter 9.pdf | PDF | Mandatory |
| 17. | Expression Transformation | <https://www.folkstalk.com/2012/02/expression-transformation-in.html> | Web | Suggestive |
| 18. | Expression Transformation | <https://etl-tools.info/informatica/expression.html> | Web | Suggestive |

* + - Hands-on Assignments for **Informatica Transformations - I**

Complete the below hands-on assignments before proceeding with the next Topic

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Hands-on Assignment | Topic Covered | Status |
| 1. | Import the data from Emp.txt with the foll structure and load it into  Emp\_New\_tgt.txt ( FILE TO FILE)  (Emp\_no, Emp\_name,Dept\_no, Salary, Bonus) | Mapping Desginer |  |
| 2. | Import the data from Product.dat File  Columns: ProductID,ProductName,Price,Quantity  Delimiter: Tab  Load only the distinct product details to the NewProduct.dat File | Mapping Desginer |  |
| 3. | Define Mapping Parameters and use them to apply source filter in the source qualifier of the relational table source | Mapping variable , parameters |  |
| 4. | Consider 3 files naming EMP1.txt ,EMP2.txt,EMP3.txt with the same structure as above in exercise 1 with different information. Load all the datas from the above 3 files into a single target file named EMP\_1\_2\_3.txt. | File List |  |
| 5. | Import the data from EMP and load to EMP\_New\_tgt whose Deptno=30 . | Filter Transformation |  |
| 6. | Import the data from EMP\_1\_2\_3.txt to 3 different files based on the deptno they are working as EMP\_10.txt,EMP\_20.txt,EMP\_30.txt .For example the people working in department number 10 are loaded into EMP\_10.txt. | Filter Transformation |  |
| 7. | Import NewProduct.dat file to a target TgtNewProd.txt with the following condition:  Remove the Product details records from the source  1)If it contains Quantity value Null or Zero  2)If ProductName contains only space | Filter Transformation |  |
| 8. | Import the data from EMP\_1\_2\_3.txt and sort them according to the salary earned. | Sorter Transformation |  |
| 9. | Import the data from EMP\_1\_2\_3.txt and sort them on the basis of the following conditions:  Condition:  1. Sort them on the basis of Deptno Ascending and Salary Descending | Sorter Transformation |  |
| 10. | Import NewProduct.dat file based on the following condition.  Remove the duplicate Product details records and load the sorted records into a target file. | Sorter Transformation |  |
| 11. | Using the above EMP\_NEW.txt , Calculate the minimum , maximum and average salary (based – department wise) and load it to EMP\_AGG.txt. | Aggregator Transformation |  |
| 12. | Note: Add few more Product detail records into NewProduct.dat with same ProductName.  Import NewProduct.dat file to a target.  Find the dealprice as sum of Price \* Quanity for each product with same name and load it into ProductSales.dat | Aggregator Transformation |  |
| 13. | Import the data from EMP\_NEW.txt with the foll structure  (Empno,FirstName,LastName,Jobname,Deptno,Salary,Comm)  Sample inputs for Jobid holding (SALES,PURCHASE,MARKETING etc).  Implement the following tasks in to that. Tname = first\_name+last\_name; Tsal = Salary\*Comm Tjob = lower(jobid) | Expression Transformation |  |
| 14. | Import NewProduct.dat file. Create a new port which indicate a ‘\*’ for any record if the Quantity is null or zero | Expression Transformation |  |

* + **Informatica Transformations - II**

Learning Material for **Informatica Transformations - II**

Below is the learning material that you are expected to read along with completion of the hands-on assignments. The material is mentioned is the order in which it should be read.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Material Title | Material Location | Type of Material | Classification |
| 1. | Rank Transformation | Informatica\_Chapter 10.pdf | PDF | Mandatory |
| 2. | Rank Transformation | <https://www.guru99.com/rank-transformation-informatica.html> | Web | Suggestive |
| 3. | Rank Transformation | <https://tekslate.com/rank-transformation-in-informatica-with-examples> | Web | Suggestive |
| 4. | Rank Transformation | <https://tekslate.com/rank-transformation-in-informatica-with-examples> | Web | Suggestive |
| 5. | Rank Transformation | <https://www.folkstalk.com/2012/03/rank-transformation-in-informatica.html> | Web | Suggestive |
| 6. | Router Transformation | Informatica\_Chapter 11.pdf | PDF | Mandatory |
| 8. | Router Transformation | <https://www.folkstalk.com/2012/03/router-transformation-in-informatica.html> | Web | Suggestive |
| 9. | Router Transformation | <https://www.guru99.com/router-transformation-informatica.html> | Web | Suggestive |
| 10. | Router Transformation | <https://tekslate.com/tutorials/informatica> | Web | Suggestive |
| 11. | Joiner Transformation | Informatica\_Chapter 12.pdf | PDF | Mandatory |
| 12. | Joiner Transformation | <https://www.guru99.com/joiner-transformation-informatica.html> | Web | Suggestive |
| 13. | Joiner Transformation | <https://www.folkstalk.com/2012/04/joiner-transformation-in-informatica.html> | Web | Suggestive |
| 14. | Union Transformation | Informatica\_Chapter 31.pdf | PDF | Mandatory |
| 15. | Union Transformation | <https://www.folkstalk.com/2012/02/union-transformation-in-informatica.html> | Web | Suggestive |
| 16. | Lookup Transformation | Informatica\_Chapter 13.pdf | PDF | Mandatory |
| 17. | Lookup Transformation | <https://www.folkstalk.com/2012/05/lookup-transformation-in-informatica.html> | Web | Suggestive |
| 18. | Lookup Transformation | <https://etl-tools.info/informatica/lookups.html> | Web | Suggestive |
| 19. | Lookup Transformation | <https://www.folkstalk.com/2012/05/connected-and-unconnected-lookup.html> | Web | Suggestive |

* + - Hands-on Assignments for **Informatica Transformations - II**

Complete the below hands-on assignments before proceeding with the next Topic

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Hands-on Assignment | Topic Covered | Status |
| 1. | Display the top 3 employees using the above EMP\_SAL.txt file.  EMP\_SAL.txt = (Empno,FirstName,LastName,Deptno,Dname,Salary,Grade) | Rank Transformation |  |
| 2. | Import ProductSales.dat  Find the top and bottom 3 products according to their DealPrice and load it into 2 different files | Rank Transformation |  |
| 3. | Import the data from EMP\_1\_2\_3.txt to 3 different files based on the deptno they are working as EMP\_10.txt,EMP\_20.txt,EMP\_30.txt .For example the people working in department number 10 are loaded into EMP\_10.txt. | Router Transformation |  |
| 4. | Import ProductSales.dat and load the Product records into 3 different target files:  ProductFile1 - Dealprice below 1000 ProductFile2 - Dealprice between 1000 and 2500  ProductFile3 - Dealprice between 2500 and 5000 | Router Transformation |  |
| 5. | Import the data from EMP\_10.txt,EMP\_20.txt,EMP\_30.txt into a target file named EMP\_10\_20\_30.txt | Union Transformation |  |
| 6. | Import the data from EMP.txt and DEPT.txt  with the following structures :  EMP.txt = (Empno,FirstName,LastName,Jobname,Deptno,Salary,Comm,MgrID)  Dept.txt = (Deptno,Dname,Location)  Salgrade.txt=(lowsal,hisal,grade)  Load the details of the above files into the following target files as per the given format :  EMP\_DEPT.txt =(Empno,FirstName,LastName,Deptno,Dname)  EMP\_MGR.txt = (Empno,FirstName,LastName,Deptno,Dname,MgrID,ManagerName)  EMP\_SAL.txt = (Empno,FirstName,LastName,Deptno,Dname,Salary,Grade) | Joiner Transformation |  |
| 7. | Perform all the outer join operation on the above EMP\_DEPT.txt file. | Joiner Transformation |  |
| 8. | Import Employee.dat file(EmpID,Ename,Salary,MgrID,DeptNo)  Load this employee data into EmployeeDetails.dat file with the details of their manager  Src : Employee.dat file(EmpID,Ename,Salary,MgrID,DeptNo)  Tgt : EmployeeDetails.dat file(EmpID,Ename,Salary,MgrID,ManagerName,DeptNo) | Joiner Transformation |  |
| 9. | Import the data from EMP.txt and DEPT.txt to create the ouptut as below: (Using Connected Lookup)  EMPNO,ENAME,DEPTNO,DNAME | Lookup Transformation |  |
| 10. | Using Unconnected Look up Transformation, Find out the department details if the department ID is passed as a mapping parameter  Output:  EMPNO,ENAME,DEPTNO,DNAME | Lookup Transformation |  |
| 11. | Implement using Unconnected Lookup:  Import Employee.dat file(EmpID,Ename,Salary,MgrID,DeptNo)  Load this employee data into EmployeeDetails.dat file with the details of their manager  Src : Employee.dat file(EmpID,Ename,Salary,MgrID,DeptNo)  Tgt : EmployeeDetails.dat file(EmpID,Ename,Salary,MgrID,ManagerName,DeptNo) | Lookup Transformation |  |

* + **Informatica Transformations - III**

Learning Material for **Informatica Transformations - III**

Below is the learning material that you are expected to read along with completion of the hands-on assignments. The material is mentioned is the order in which it should be read.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Material Title | Material Location | Type of Material | Classification |
| 1. | Sequence Generator Transformation | Informatica\_Chapter 14.pdf | PDF | Mandatory |
| 2. | Sequence Generator Transformation | <https://www.guru99.com/sequence-generator-transformation-informatica.html> | Web | Suggestive |
| 3. | Sequence Generator Transformation | <https://www.folkstalk.com/2012/05/sequence-generator-transformation-in.html> | Web | Suggestive |
| 4. | Sequence Generator Transformation | <https://www.folkstalk.com/2012/05/reusable-vs-non-reusable-properties-of.html> | Web | Suggestive |
| 5. | Transformation Language | Informatica\_Chapter 15.pdf | PDF | Mandatory |
| 6. | Source Qualifier Transformation | Informatica\_Chapter 16.pdf | PDF | Mandatory |
| 8. | Source Qualifier Transformation | <https://www.guru99.com/source-qualifier-transformation-informatica.html> | Web | Suggestive |
| 9. | Source Qualifier Transformation | <https://www.folkstalk.com/2011/12/source-qualifier-transformation-in.html> | Web | Suggestive |
| 10. | Source Qualifier Transformation | <https://www.folkstalk.com/2011/12/source-qualifier-transformation.html> | Web | Suggestive |
| 11. | Source Qualifier Transformation | <https://tekslate.com/tutorials/informatica> | Web | Suggestive |
| 12. | Update Strategy Transformation | Informatica\_Chapter 17.pdf | PDF | Mandatory |
| 14. | Update Strategy Transformation | <https://www.folkstalk.com/2012/05/update-strategy-transformation-in.html> | Web | Suggestive |
| 15. | Update Strategy Transformation | <https://etl-tools.info/informatica/update_strategy.html> | Web | Suggestive |
| 16. | Normalizer | Informatica\_Chapter 32.pdf | PDF | Mandatory |
| 17. | Normalizer | <https://dwbi.org/etl/informatica/147-using-informatica-normalizer-transformation> | Web | Suggestive |
| 18. | Reusable Transformation | Informatica\_Chapter 18.pdf | PDF | Mandatory |
| 19. | Reusable Transformation | <https://www.guru99.com/lookup-re-usable-transformation-informatica.html> | Web | Suggestive |
| 20. | Java Transformation | Informatica\_Chapter 19.pdf | PDF | Mandatory |
| 21. | Java Transformation | <https://dwbi.org/etl/informatica/148-informatica-java-transformation> | Web | Suggestive |
| 22. | Java Transformation | <http://etl-tools.info/informatica/java.html> |  |  |

* + - Hands-on Assignments for **Informatica Transformations - III**

Complete the below hands-on assignments before proceeding with the next Topic

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Hands-on Assignment | Topic Covered | Status |
| 1. | Import ProductSales.dat file.  Generate a unique OrderNumber as ProductID combined with a unique number and each OderNumber should be prefixed with a string ‘ORD’  Ex: ORDPrdID011000 | Sequence Generator Transformation |  |
| 2. | Import NewProduct.dat file  Load all the even numbered rows into one file and remaining into another file. | Transformations |  |
| 3. | Create a job to get datas from two source file EMP,DEPT table. (Using Source Qualifier)  Display the following output in a file.  EMPNO,ENAME,DNO,DNAME,SAL  Conditions:  1. SAL > 5000  2. Sort the ouput on the basis of DNO | Source Qualifier Transformation |  |
| 4. | Demonstrate Update Strategy . implement insert,update and rejecting rows.  Taking the source and target as Empdetais. | Update Strategy Transformation |  |
| 5. | Consider the foll source table structure :  Input:  EMPNAME,MONTH,TRANSPORT,HOTEL,FOOD  Output:  EMPNAME,MONTH,EXPENSES | Normalizer Transformation |  |
| 6. | Consider the following source table structure for the sales done per quarter :  Input:  STORE,QTR1,QTR2,QTR3,QTR4  Output:  STORE,SALES\_AMOUNT,QUARTER | Normalizer Transformation |  |
| 7. | Import data from EMP table with structure:  EMPNO,ENAME,SAL,DNO,COMM | Database Connector |  |
| 8. | Taking the above imported data as source , load it into EMP\_New\_tgt1.txt (Table to FILE) | Database Connector |  |
| 9. | Import the data from Dept.txt with the following structure and load it into DEPT table.(File to Table)  Input:  (Deptno,Dname,Location) | Database Connector |  |
| 10 | Import the data from EMP\_1\_2\_3.txt  to a new table in SQLPLUS named EMP\_TABLE using both the foll scenarios  a)     table created from SQL PLUS  b)    creating table from informatica tool | Database Connector |  |
| 11. | Load the data from a flat file to Table, Table to flat file. ( single source, single target). | Database Connector |  |
| 12. | Load the data from flat file + table to flat file + table. (multiple source, multiple targets). | Database Connector |  |

* + **Informatica Transformations - IV**

Learning Material for **Informatica Transformations - IV**

Below is the learning material that you are expected to read along with completion of the hands-on assignments. The material is mentioned is the order in which it should be read.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Material Title | Material Location | Type of Material | Classification |
| 1. | Mapplet | Informatica\_Chapter 20.pdf | PDF | Mandatory |
| 2. | Mapplet | <https://tekslate.com/tutorials/informatica> | Web | Suggestive |
| 3. | Stored Procedure Transformation | Informatica\_Chapter 21.pdf | PDF | Mandatory |
| 4. | Stored Procedure Transformation | <https://www.folkstalk.com/2013/04/stored-procedure-transformation-informatica.html> | Web | Suggestive |
| 5. | Stored Procedure Transformation | <https://www.folkstalk.com/2013/04/stored-procedure-transformation-example-informatica.html> | Web | Suggestive |
| 6. | Stored Procedure Transformation | <https://www.folkstalk.com/2013/04/unconnected-stored-procedure-transformation-informatica.html> | Web | Suggestive |
| 7. | Stored Procedure Transformation | <https://www.folkstalk.com/2011/06/informatica-interview-questions-on_729.html> | Web | Suggestive |
| 8. | Workflow | Informatica\_Chapter 22.pdf | PDF | Mandatory |
| 9. | Workflow | <https://www.guru99.com/workflows-informatica.html> | Web | Suggestive |
| 10. | Worklet | Informatica\_Chapter 23.pdf | PDF | Mandatory |
| 11. | Worklet | <https://tekslate.com/work-let-types-work-let-informatica> | Web | Suggestive |

* + - Hands-on Assignments for **Informatica Transformations - IV**

Complete the below hands-on assignments before proceeding with the next Topic

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Hands-on Assignment | Topic Covered | Status |
| 1. | 1. Create a mapplet named Mapplet\_Revi\_Salary which has input to collect the data  2. Use a transformations  ( To revise the salary of all the employees based on their departments for ex: dept 10 will have hike of 10% , dept 20 will have hike of 20% ,dept 30 with 30%)  3. The revised salary if its > 100000 then take the details to Tgt1 and others to Tgt2  4.Store output in respective mapplet output.  Use the mappet Mapplet\_Revi\_Salary created in a Mapping and execute it. | Mapplet |  |
| 2. | Create an intermediate mapplet which takes the following inputs: EMPNO,ENAME,SALARY  Output:  EMPNO with name ENAME is earning SALARY. | Mapplet |  |
| 3. | Create a procedure in SQLPlus to get the salary of all the employees.  Use the above created procedure in the job and display the following output in a file.  EMPNO,ENAME,SAL (Using Connected Procedure) | Stored Procedure Transformation |  |
| 4. | Create a procedure in SQLPlus to get the salary and increment the salary by 1000 for all the employees.  Use the above created procedure in the job and display the following output in a file.  EMPNO,ENAME,SAL,REV\_SAL(Using Unconnected Procedure) | Stored Procedure Transformation |  |
| 5. | Create a procedure in SQLPlus to get the salary of all the employees.  Use the above created procedure in the job and display the following output in a file.  EMPNO,ENAME,SAL (Using Connected Function) | Stored Procedure Transformation |  |
| 6. | Create a procedure in SQLPlus to get the salary and increment the salary by 1000 for all the employees.  Use the above created procedure in the job and display the following output in a file.  EMPNO,ENAME,SAL,REV\_SAL(Using Unconnected Function) | Stored Procedure Transformation |  |
| 7. | Create a job using procedure to display the count the number of employees in each department | Stored Procedure Transformation |  |

* + **Slowly Changing Dimension**

Learning Material for **Slowly Changing Dimension**

Below is the learning material that you are expected to read along with completion of the hands-on assignments. The material is mentioned is the order in which it should be read.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Material Title | Material Location | Type of Material | Classification |
| 1. | SCD | Informatica\_Chapter 24.pdf | PDF | Mandatory |
| 2. | SCD | <https://en.wikipedia.org/wiki/Slowly_changing_dimension> | Web | Suggestive |
| 3. | SCD | <https://www.datawarehouse4u.info/SCD-Slowly-Changing-Dimensions.html> | Web | Suggestive |
| 4. | SCD-1 | <https://www.folkstalk.com/2012/03/createdesignimplement-scd-type-1.html> | Web | Suggestive |
| 5. | SCD-2 | <https://www.folkstalk.com/2012/03/designimplementcreate-scd-type-2.html> | Web | Suggestive |
| 6. | SCD-2 | <https://www.folkstalk.com/2012/04/designimplementcreate-scd-type-2.html> | Web | Suggestive |
| 7. | SCD-3 | <https://www.folkstalk.com/2012/03/createdesignimplement-scd-type-3.html> | Web | Suggestive |
| 8. | SCD-Using Wizard | <https://www.folkstalk.com/2012/03/createimplement-scd-informatica-mapping.html> | Web | Suggestive |
| 9. | SCD-1(Example) | Informatica\_Chapter 33.pdf | PDF | Mandatory |
| 10. | SCD-2(Example) | Informatica\_Chapter 34.pdf | PDF | Mandatory |
| 11. | SCD-3(Example) | Informatica\_Chapter 35.pdf | PDF | Mandatory |

* + - Hands-on Assignments for **Slowly Changing Dimension**

Complete the below hands-on assignments before proceeding with the next Topic

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Hands-on Assignment | Topic Covered | Status |
| 1. | Create a mapping to do the following:  1. Merge Emp10.txt ,Emp20.txt  2. Take the output to the target MergeTar.txt by creating a unique number with Surrogate Key Generator (Using Flat File) | Surrogate Key |  |
| 2. | SCD - Type 1:  Source:  CREATE TABLE CUST  (  CUST\_ID NUMBER,  CUST\_NM VARCHAR2(250 BYTE),  ADDRESS VARCHAR2(250 BYTE),  CITY VARCHAR2(50 BYTE),  STATE VARCHAR2(50 BYTE),  INSERT\_DT DATE,  UPDATE\_DT DATE  );  Target:  CREATE TABLE STANDALONE.CUST\_D  (  PM\_PRIMARYKEY INTEGER,  CUST\_ID NUMBER,  CUST\_NM VARCHAR2(250 BYTE),  ADDRESS VARCHAR2(250 BYTE),  CITY VARCHAR2(50 BYTE),  STATE VARCHAR2(50 BYTE),  INSERT\_DT DATE,  UPDATE\_DT DATE  );  CREATE UNIQUE INDEX STANDALONE.CUST\_D\_PK ON  STANDALONE.CUST\_D(PM\_PRIMARYKEY);  ALTER TABLE CUST\_D ADD (CONSTRAINT CUST\_D\_PK PRIMARY KEY (PM\_PRIMARYKEY));  c) SCD Type-1 Implementation in informatica | SCD Type 1 |  |
| 3. | SCD Type 2:  a) SCD Type 2 Transformation  In Type 2 Slowly Changing Dimension, if one new record is added to the existing table with a new information then both the original and the new record will be presented having new records with its own primary key.  b) SCD Type 2 Tables:  Source:  CREATE TABLE CUST  (  CUST\_ID NUMBER,  CUST\_NM VARCHAR2(250),  ADDRESS VARCHAR2(250),  CITY VARCHAR2(50),  STATE VARCHAR2(50),  INSERT\_DT DATE,  UPDATE\_DT DATE  );  Target:  CREATE TABLE CUST\_D  (  PM\_PRIMARYKEY INTEGER,  CUST\_ID NUMBER,  CUST\_NM VARCHAR2(250),  ADDRESS VARCHAR2(250),  CITY VARCHAR2(50),  STATE VARCHAR2(50),  ACTIVE\_DT DATE,  INACTIVE\_DT DATE,  INSERT\_DT DATE,  UPDATE\_DT DATE  );  Here active\_dt and inactive\_dt used to indentify history data.  PM\_PRIMARYKEY is surrogate key which is used to identify each and every record uniquely in target.  c) SCD Type 2 Transformation  Create or implement slowly changing dimension (SCD) Type 2 :  Source:  Create Table Customers  (  Customer\_Id Number Primary Key,  Location Varchar2(30)  );  Target Dimension Table  Create Table Customers\_Dim  (  Cust\_Key Number Primary Key,  Customer\_Id Number,  Location Varchar2(30),  Flag Number  );  • Identifying the new records and inserting into the dimension table with flag column value as one.  • Identifying the changed record and inserting into the dimension table with flag value as one.  • Identify the changed record and update the existing record in dimension table with flag value as zero.  d) SCD Type 2 Transformation:  create or implement slowly changing dimension (SCD) Type 2 Effective Date .  Source Table:  Create Table Customers  (  Customer\_Id Number Primary Key,  Location Varchar2(30)  );  Target Dimension Table:  Create Table Customers\_Dim  (  Cust\_Key Number Primary Key,  Customer\_Id Number,  Location Varchar2(30),  Begin\_Date Date,  C25 End\_Date Date  );  • Identifying the new records and inserting into the dimension table with Begin\_Date as the Current date (SYSDATE) and End\_Date as NULL.  • Identifying the changed record and inserting into the dimension table with Begin\_Date as the Current date (SYSDATE) and End\_Date as NULL.  • Identify the changed record and update the existing record in dimension table with End\_Date as Curren date. | SCD Type 2 |  |
| 4. | SCD Type 3:  a) SCD Type 3 Transformation.  In SCD Type3 ,there should be added two column to identifying a single attribute. It stores one time historical data with current data  b) SCD Type 2 Tranformation.  Create or implement or design a slowly changing dimension (SCD) Type 3 using informatica.  The SCD Type 3 method is used to store partial historical data in the Dimension table. The dimension table contains the current and previous data.  • Identifying the new record and insert it in to the dimension table.  • Identifying the changed record and update the existing record in the dimension table.  Source:  CREATE TABLE Customers  (  Customer\_Id Number,  Location Varchar2(30)  )  Target:  CREATE TABLE Customers\_Dim  (  Cust\_Key Number,  Customer\_Id Number,  Current\_Location Varchar2(30),  Previous\_Location Varchar2(30)  ) | SCD Type 3 |  |

* + **Repository Service Repository Manager**

Learning Material for **Repository Service Repository Manager**

Below is the learning material that you are expected to read along with completion of the hands-on assignments. The material is mentioned is the order in which it should be read.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Material Title | Material Location | Type of Material | Classification |
| 1. | Workflow Monitor | Informatica\_Chapter 25.pdf | PDF | Mandatory |
| 2. | Workflow Monitor | <https://tekslate.com/informatica-components> | Web | Suggestive |
| 3. | Repository Service | Informatica\_Chapter 26.pdf | PDF | Mandatory |
| 4. | Repository Service | <https://tekslate.com/informatica-components> | Web | Suggestive |
| 5. | Repository Management | Informatica\_Chapter 27.pdf | PDF | Mandatory |
| 6. | Repository Management | <https://tekslate.com/informatica-components> | Web | Suggestive |

* + - Hands-on Assignments for **Repository Service Repository Manager**

Complete the below hands-on assignments before proceeding with the next Topic

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Hands-on Assignment | Topic Covered | Status |
| 1. | Create a repository Service in Administration console and add contents in the user.  Connect to the above created repository and create a folder. Give all the permissions to the user.  Open the repository in designer to add a source table. Copy the same table in another folder.  Compare both the folders | Workflow Monitor |  |

* + **Informatica – Advance Concepts**

Learning Material for **Informatica – Advance Concepts**

Below is the learning material that you are expected to read along with completion of the hands-on assignments. The material is mentioned is the order in which it should be read.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Material Title | Material Location | Type of Material | Classification |
| 7. | Performance Tuning | Informatica\_Chapter 28.pdf | PDF | Suggestive |
| 8. | Performance Tuning | <https://dwbi.org/etl/informatica/157-informatica-performance-tuning-complete-guide> | Web | Suggestive |
| 9. | Performance Tuning | <https://dwbi.org/etl/informatica/160-tuning-informatica-aggregator> | Web | Suggestive |
| 10. | Performance Tuning | <https://dwbi.org/etl/informatica/159-tuning-informatica-joiner> | Web | Suggestive |
| 11. | Performance Tuning | <http://dwhlaureate.blogspot.in/2012/07/performance-tuning-in-informatica.html> | Web | Suggestive |
| 12. | Debugger | Informatica\_Chapter 29.pdf | PDF | Suggestive |
| 13. | Debugger | <https://www.guru99.com/debug-mappings-informatica.html> | Web | Suggestive |
| 14. | Best Practices | Informatica\_Chapter 30.pdf |  |  |

* + - Hands-on Assignments for **Informatica – Advance Concepts**
      * No Hands-on Assignments for this topic
* Learning Outcomes

Upon completion of this TECH Module, you should be able to:

* + Introduction to Informatica
  + Integration Service
  + Mapping Designer
  + Difference between Active and Passive transformation
  + Types of Transformations – Expression, Filter, Joiner, Aggregator
  + Workflow Creation
  + Worklet Creation
  + Introduction to Repository services
  + Slowly Changing Dimension
  + Lookup – Connected, Unconnected
  + Stored Procedure Transformation
  + Debugger
* Sample Questions

After gaining knowledge of the above module, below are the possible interview questions that you should be able to confidently answer.

|  |  |
| --- | --- |
| No. | Questions |
| 1 | What is the difference between Active and Passive Transformation? |
| 2 | Distinguish Connected and Unconnected Lookup? |
| 3 | What is a Normalizer transformation? |
| 4 | What is the difference between Router and Filter transformation? |
| 5 | What is a Power Center Repository? |
| 6 | Explain the uses of Stored Procedure Transformation? |
| 7 | What is DTM? |
| 8 | Define Source Qualifier Transformation |
| 9 | Differentiate Maplet and Reusable transformation |
| 10 | What are Update Strategy Transformation? |
| 11 | Define Surrogate key. |
| 12 | What is SCD? |
| 13 | What is Dimension and Fact ? |
| 14 | Difference between Star Schema and Snow Flake Schema? |
| 15 | How to invoke informatica batch outside informatica session? |
| 16 | What is the functionality of Repository Manager? |
| 17 | Define Parameter File. |
| 18 | What are the different designer objects in Informatica? |
| 19 | Difference between ER Modelling and Dimensional Modelling? |
| 20 | Name the output files created by Informatica Server during session. |