

PROJECT REPORT - STUDENT REPORT

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1. INTRODUCTION

1.1. Problem Statement

To develop a complete Student Report defining the Department Dimension Table, Student Dimension Table, Marks Fact Table, Subject Average Aggregate Table, Subject Pass Percentage Aggregate Table to have a clear picture about the personal details, individual marks & overall passing percentage of students of a certain institution.

1.2. Purpose & Scope

The purpose of this report is to systematically capture the requirements for the 'Student Report' project and the same system to be developed. Functional requirements of this system are captured in this document. It also serves as the input for the project scoping.

The motivation behind the undertaking is to assemble an information stockroom according to the necessities of the organisation utilizing Informatica PowerCenter ETL instrument. In the Student Report System, we are intending to assemble a Data Warehouse to help the organisation to have better choices.

The scope of this document is limited to addressing the requirements from a user, quality, and non-functional perspective. It is recommended that design aspects are not added in this document

1.3. Assumptions

- All source files will be available in specified format
- Target database will be available to create Data Warehouse tables
- Informatica server will be able to connect to Data Warehouse database
- The system will not be available if there are any outages to Data Warehouse Database

1.4. Key Requirements

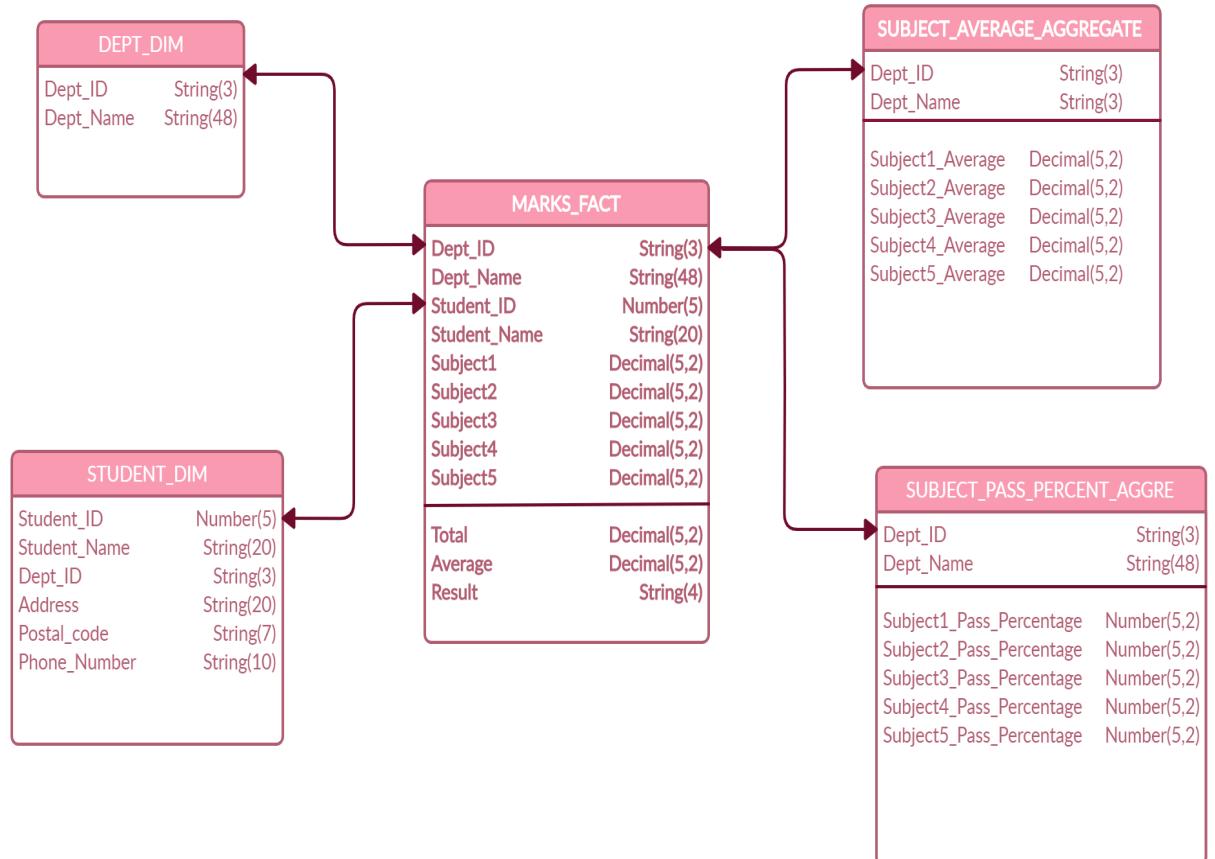
- The system should allow the user to generate the result of the students on the basis of marks obtained keeping in mind the passing criteria as given.
- The system is required to generate the passing percentage of each subject grouped by department.

1.5. Impact

The system will be beneficial in order to manage the academics of a batch of students in an institution & generate a clear picture of necessary changes for betterment .

2. FUNCTIONAL REQUIREMENT

2.1. Logical Design



2.2. Source Metadata

| Dept_Details | |
|--------------|------------|
| Dept_Code | String(3) |
| Dept_Name | String(48) |

| Student_Details | |
|-----------------|------------|
| Dept_Code | String(3) |
| Student_ID | Number(5) |
| Student_Name | String(20) |

| Student_Address | |
|-----------------|------------|
| Student_ID | Number(5) |
| Address | String(20) |
| Postal_code | String(7) |
| Phone_Number | String(10) |

| Student_Marks | |
|---------------|-----------|
| Student_ID | Number(5) |
| ROLL | String(7) |
| Mark1 | Number(3) |
| Mark2 | Number(3) |
| Mark3 | Number(3) |
| Mark4 | Number(3) |
| Mark5 | Number(3) |

2.3. Target Metadata

| DEPT_DIM | |
|-----------|------------|
| Dept_ID | String(3) |
| Dept_Name | String(48) |

| STUDENT_DIM | |
|--------------|------------|
| Student_ID | Number(5) |
| Student_Name | String(20) |
| Dept_ID | String(3) |
| Address | String(20) |
| Postal_code | String(7) |
| Phone_Number | String(10) |

| MARKS_FACT | |
|--------------|--------------|
| Dept_ID | String(3) |
| Dept_Name | String(48) |
| Student_ID | Number(5) |
| Student_Name | String(20) |
| Subject1 | Decimal(5,2) |
| Subject2 | Decimal(5,2) |
| Subject3 | Decimal(5,2) |
| Subject4 | Decimal(5,2) |
| Subject5 | Decimal(5,2) |
| Total | Decimal(5,2) |
| Average | Decimal(5,2) |
| Result | String(4) |

| SUBJECT_AVERAGE_AGGREGATE | |
|---------------------------|--------------|
| Dept_ID | String(3) |
| Dept_Name | String(3) |
| Subject1_Average | Decimal(5,2) |
| Subject2_Average | Decimal(5,2) |
| Subject3_Average | Decimal(5,2) |
| Subject4_Average | Decimal(5,2) |
| Subject5_Average | Decimal(5,2) |

| SUBJECT_PASS_PERCENT_AGGRE | |
|----------------------------|-------------|
| Dept_ID | String(3) |
| Dept_Name | String(48) |
| Subject1_Pass_Percentage | Number(5,2) |
| Subject2_Pass_Percentage | Number(5,2) |
| Subject3_Pass_Percentage | Number(5,2) |
| Subject4_Pass_Percentage | Number(5,2) |
| Subject5_Pass_Percentage | Number(5,2) |

2.4. Deliverables

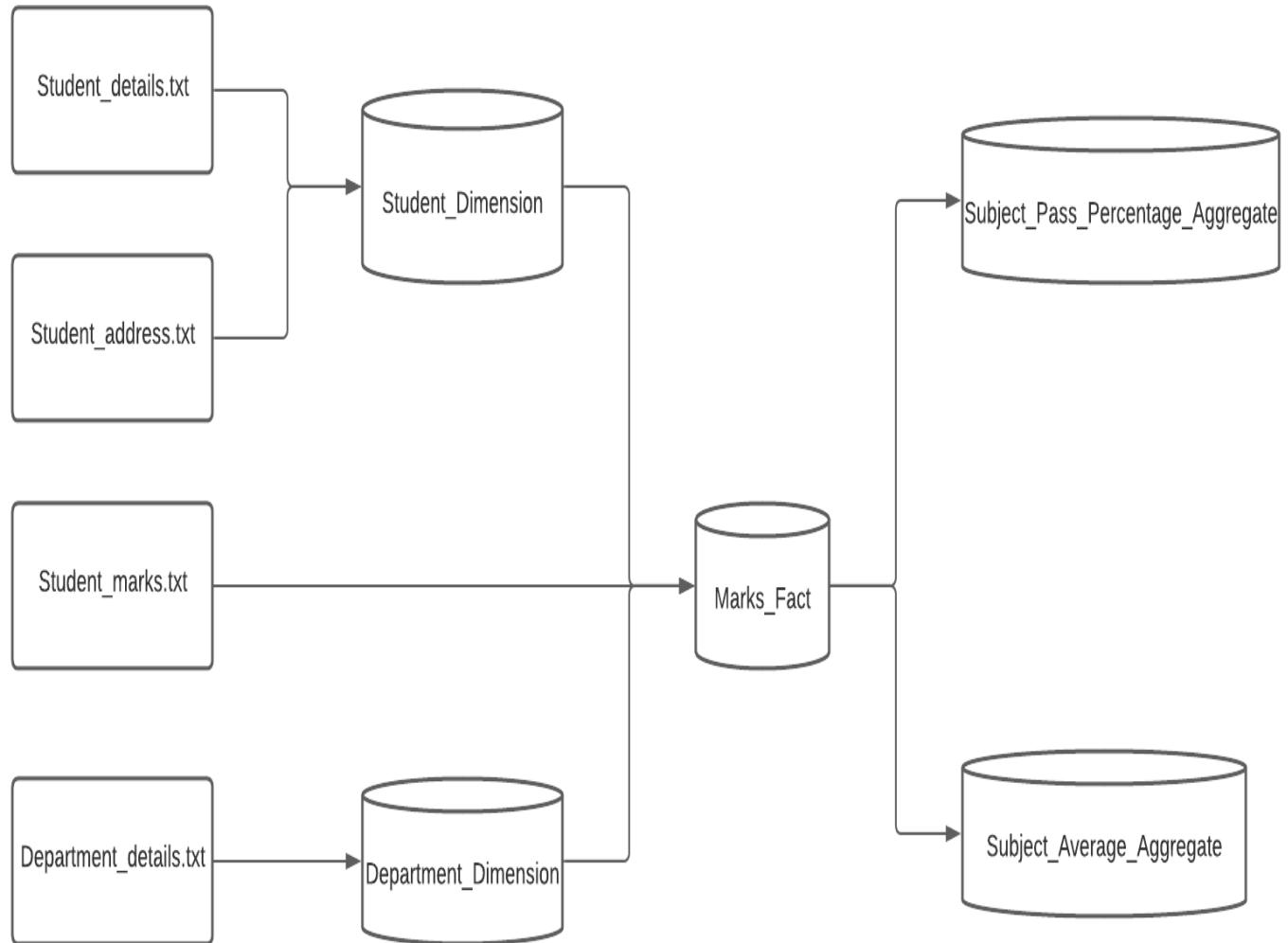
2.4.1. Source

| TABLE NAME | SELECTION/FILTER |
|-----------------|-------------------|
| Dept_Details | All rows selected |
| Student_Details | All rows selected |
| Student_Address | All rows selected |
| Student_Marks | All rows selected |

2.4.2. Target

| TABLE NAME | TRANSFORMATIONS USED |
|----------------------------|------------------------|
| DEPT_DIM | - |
| STUDENT_DIM | Expression, Joiner |
| MARKS_FACT | Lookup, Expression |
| SUBJECT_AVERAGE_AGGREGATE | Sorter, Aggregator |
| SUBJECT_PASS_PERCENT_AGGRE | Expression, Aggregator |

2.4.3. High Level Process Overview



2.4.4 Source To Target Field Matrix

| Target Table | Source Table | Transformations |
|--|---|---|
| Dept_Dimension [Oracle Database] | Dept_Details [Flat File] | - |
| STUDENT_DIM [Oracle Database] | Student_Details [Flat File], Student_Address [Flat File] | EXP_STU_DIM [Expression], JNR_STUDENT_DIM [Joiner] |
| Marks_Fact [Oracle Database] | Student_Marks [Flat File] | LKP_STUDENT_DIM [Lookup], LKP_DEPT_DIM [Lookup], EXP_MARKS_FACT [Expression] |
| Dept_Avg_Agg [Oracle Database] | Marks_Fact [Oracle Database] | SRT_STU_AVG_AGG [Sorter], AGG_SUB_AVG_AGG [Aggregator], SRT_SUB_AVG_AGG [Sorter] |
| Dept_Pass_Percent_Agg [Oracle Database] | Marks_Fact [Oracle Database] | EXP_SUB_PASS_AGG [Expression], AGG_SUB_PASS_PER [Aggregator] |

2.4.5. Processing Description

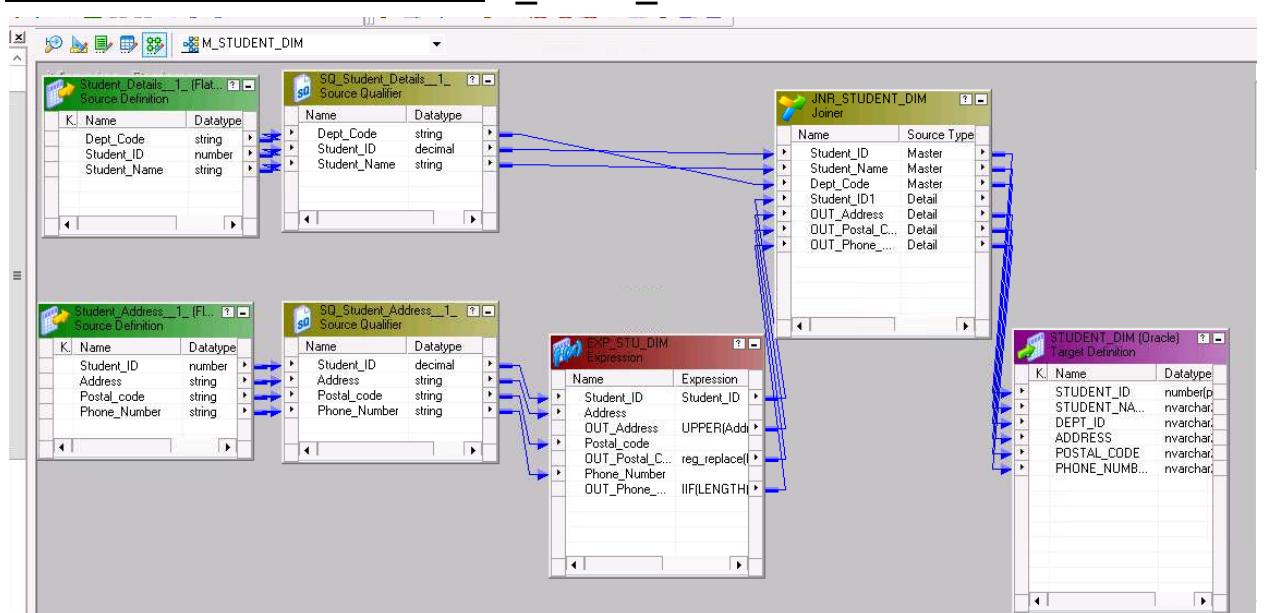
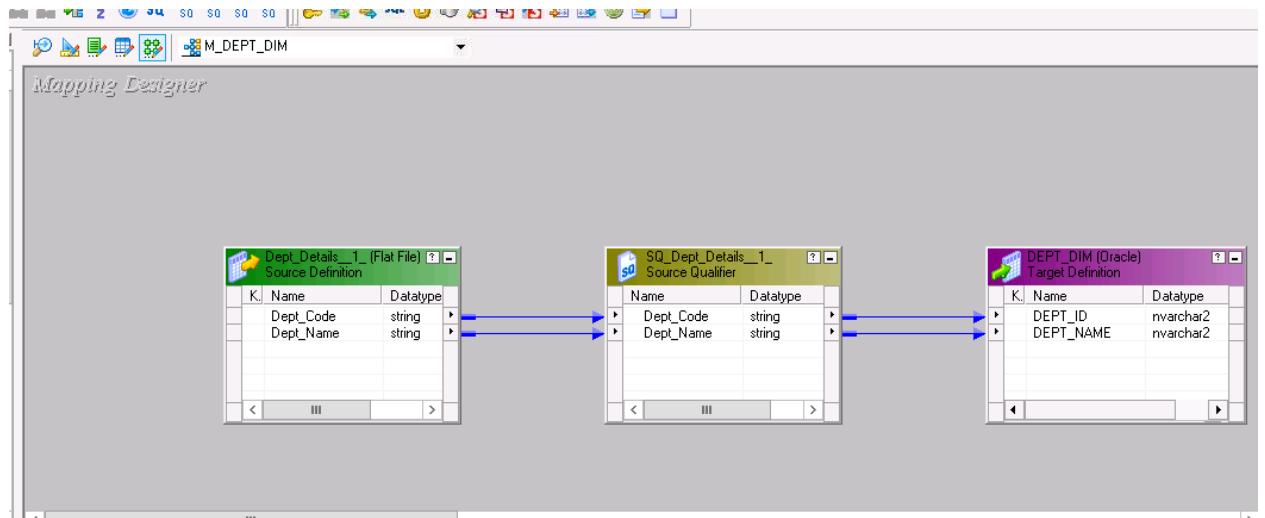
After importing the Source Files (Dept_Details, Student_Details, Student_Address, Student_Marks), Dept_Details is loaded directly into DEPT_DIM. While Student_Details and Student_Address are joined to create STUDENT_DIM where Address, Postal_Code & Phone_Number is validated and modified according to functional requirements using Expression Transformation.

For creating MARKS_FACT Lookup is performed on Student_Marks through LKP_STU_DIM which is further looked up using LKP_DEPT_DIM. All the data from Lookups are dumped in an Expression transformation where (Total,Average & Result) is calculated.

Data from MARKS_FACT imported as the Source table is sent to Sorter Transformation (Dept_ID as the key). Average of each Subject is calculated for each Department(Group By) termed as Subject1_Average field. It is sorted again w.r.t Dept_id and mapped to the target table (SUBJECT_AVERAGE_AGGREGATE).

Data from MARKS_FACT imported as the Source table is sent to Expression transformation to calculate intermediate fields (O1, O2, O3, O4, O5) that determine if a student has passed or failed in a given subject. After this we calculated the Subject1_Pass_Percentage field to determine the percentage of students passed in a given Department (Group By Dept_ID). Finally it is mapped to the target table SUBJECT_PASS_PERCENT_AGGRE.

2.5. Mapping Design



M_STUDENT_DIM

Edit Transformations

Transformation Ports Properties Metadata Extensions

Select transformation: EXP_STU_DIM

Transformation type: Expression

| | Port Name | Datatype | Prec | Scale | I | O | V | Expression |
|---|------------------|----------|------|-------|-------------------------------------|-------------------------------------|--------------------------|---|
| 1 | Student_ID | decimal | 5 | 0 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Student_ID |
| 2 | Address | string | 20 | 0 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 3 | OUT_Address | string | 20 | 0 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | UPPER(Address) |
| 4 | Postal_code | string | 7 | 0 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 5 | OUT_Postal_Code | string | 7 | 0 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | reg_replace[Postal_code, "[^a-zA-Z]",] |
| 6 | Phone_Number | string | 10 | 0 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 7 | OUT_Phone_Number | string | 10 | 0 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | IIF(LENGTH(Phone_Number) != 10, 'NULL', Phone_Number) |

Default value:

Description:

OK Cancel Apply Help

EXP_STU_DIM

Edit Transformations

Transformation Ports Properties Condition Metadata Extensions

Select transformation: JNR_STUDENT_DIM

Transformation type: Joiner

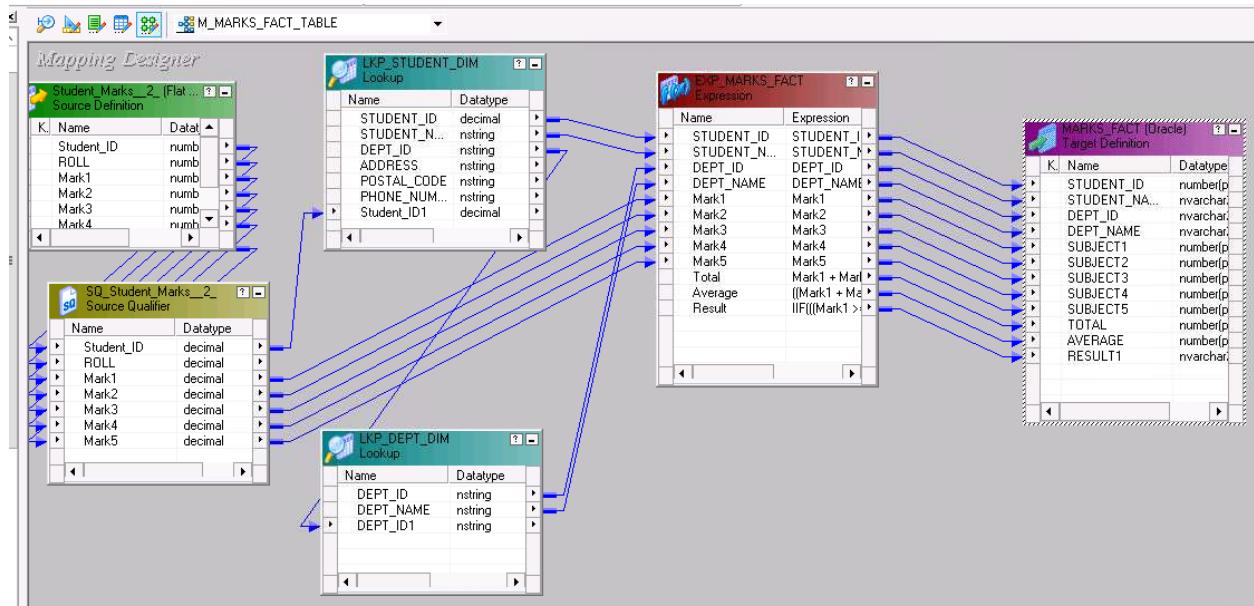
| | Port Name | Datatype | Prec | Scale | I | O | M |
|---|------------------|----------|------|-------|-------------------------------------|-------------------------------------|-------------------------------------|
| 1 | Student_ID | decimal | 5 | 0 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2 | Student_Name | string | 20 | 0 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3 | Dept_Code | string | 3 | 0 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| 4 | Student_ID1 | decimal | 5 | 0 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 5 | OUT_Address | string | 20 | 0 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 6 | OUT_Postal_Code | string | 7 | 0 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 7 | OUT_Phone_Number | string | 10 | 0 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Default value:

Description:

OK Cancel Apply Help

JNR_STUDENT_DIM



M_MARKS_FACT

Edit Transformations

Transformation Ports Properties Metadata Extensions

Select transformation: **f0 EXP_MARKS_FACT**

Transformation type: **Expression**

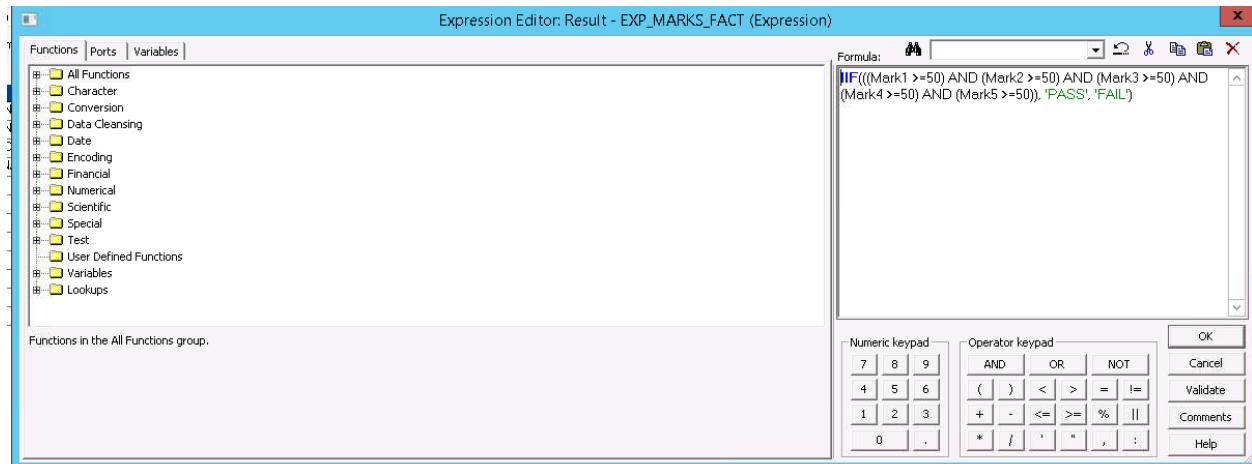
| | Port Name | Datatype | Prec | Scale | I | O | V | Expression |
|----|--------------|----------|------|-------|-------------------------------------|-------------------------------------|--------------------------|--|
| 1 | STUDENT_ID | decimal | 5 | 0 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | STUDENT_ID |
| 2 | STUDENT_NAME | cstring | 20 | 0 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | STUDENT_N... |
| 3 | DEPT_ID | cstring | 3 | 0 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | DEPT_ID |
| 4 | DEPT_NAME | cstring | 48 | 0 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | DEPT_NAME |
| 5 | Mark1 | decimal | 5 | 2 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Mark1 |
| 6 | Mark2 | decimal | 5 | 2 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Mark2 |
| 7 | Mark3 | decimal | 5 | 2 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Mark3 |
| 8 | Mark4 | decimal | 5 | 2 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Mark4 |
| 9 | Mark5 | decimal | 5 | 2 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Mark5 |
| 10 | Total | decimal | 5 | 2 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Mark1 + Mark2 + Mark3 + Mark4 + Mark5 |
| 11 | Average | decimal | 5 | 2 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (Mark1 + Mark2 + Mark3 + Mark4 + Mark5) / 5 |
| 12 | Result | string | 4 | 0 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | IIF((Mark1 >= 50) AND (Mark2 >= 50) AND (Mark3 >= 50) AND (Mark4 >= 50) AND (Mark5 >= 50), 1, 0) |

Default value:

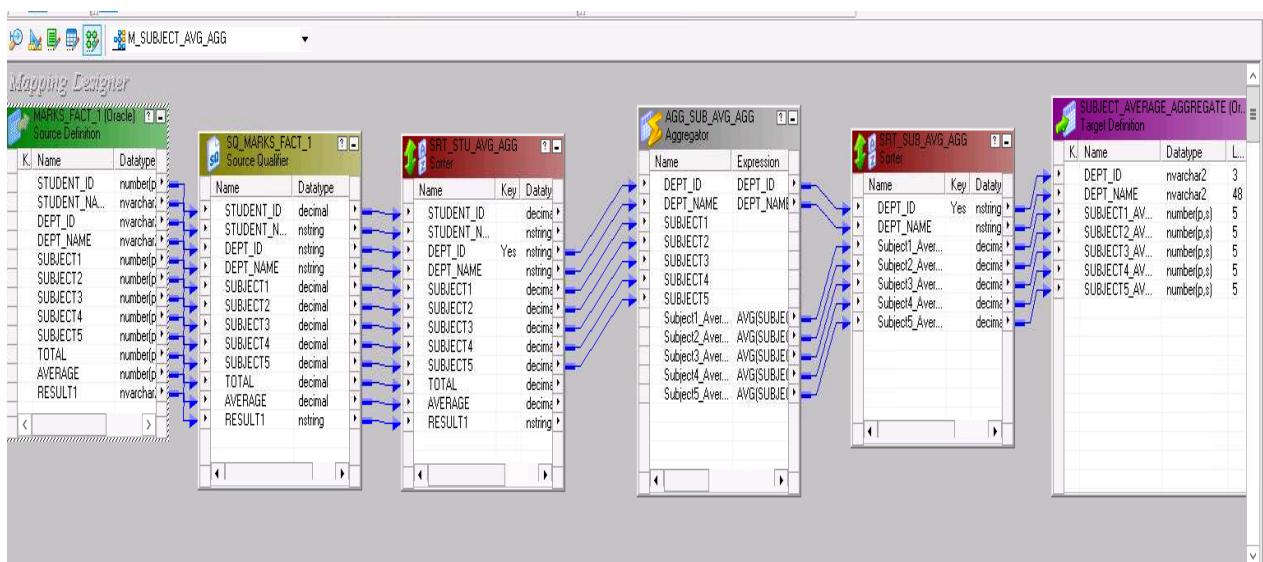
Description:

OK Cancel Apply Help

EXP_MARKS_FACT



RESULT EXPRESSION



M_SUBJECT_AVG_AGG

Edit Transformations

Transformation: Ports Properties Metadata Extensions

Select transformation: AGG_SUB_AVG_AGG

Transformation type: Aggregator

Port Name Datatype Prec Scale I O V Expression GroupBy

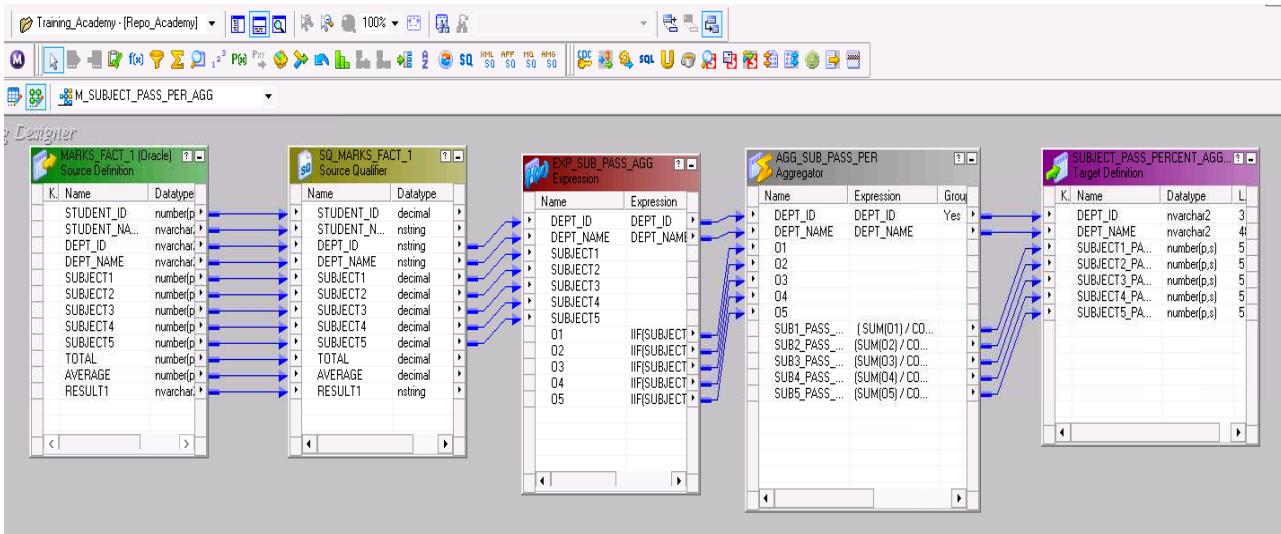
| | | | | | | | | |
|---------------------|---------|----|---|-------------------------------------|-------------------------------------|--------------------------|---------------|--|
| 1 DEPT_ID | string | 3 | 0 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | DEPT_ID | |
| 2 DEPT_NAME | string | 48 | 0 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | DEPT_NAME | |
| 3 SUBJECT1 | decimal | 5 | 2 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | |
| 4 SUBJECT2 | decimal | 5 | 2 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | |
| 5 SUBJECT3 | decimal | 5 | 2 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | |
| 6 SUBJECT4 | decimal | 5 | 2 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | |
| 7 SUBJECT5 | decimal | 5 | 2 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | |
| 8 Subject1_Average | decimal | 5 | 2 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | AVG(SUBJECT1) | |
| 9 Subject2_Average | decimal | 5 | 2 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | AVG(SUBJECT2) | |
| 10 Subject3_Average | decimal | 5 | 2 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | AVG(SUBJECT3) | |
| 11 Subject4_Average | decimal | 5 | 2 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | AVG(SUBJECT4) | |
| 12 Subject5_Average | decimal | 5 | 2 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | AVG(SUBJECT5) | |

Default value:

Description:

OK Cancel Apply Help

AGG_SUB_AVG_AGG



M SUBJECT PASS PER AGG

Edit Transformations

Transformation Ports Properties Metadata Extensions

Select transformation: EXP_SUB_PASS_AGG

Transformation type: Expression

| Port Name | Datatype | Prec | Scale | I | O | V | Expression |
|-------------|----------|------|-------|-------------------------------------|-------------------------------------|--------------------------|------------------------|
| 1 DEPT_ID | nrstring | 3 | 0 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | DEPT_ID |
| 2 DEPT_NAME | nrstring | 48 | 0 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | DEPT_NAME |
| 3 SUBJECT1 | decimal | 5 | 2 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 4 SUBJECT2 | decimal | 5 | 2 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 5 SUBJECT3 | decimal | 5 | 2 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 6 SUBJECT4 | decimal | 5 | 2 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 7 SUBJECT5 | decimal | 5 | 2 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 8 01 | decimal | 5 | 2 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | IF(SUBJECT1 >= 50,1,0) |
| 9 02 | decimal | 5 | 2 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | IF(SUBJECT2 >= 50,1,0) |
| 10 03 | decimal | 5 | 2 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | IF(SUBJECT3 >= 50,1,0) |
| 11 04 | decimal | 5 | 2 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | IF(SUBJECT4 >= 50,1,0) |
| 12 05 | decimal | 5 | 2 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | IF(SUBJECT5 >= 50,1,0) |

Default value:

Description:

OK Cancel Apply Help

EXP_SUB_PASS_AGG

Edit Transformations

Transformation Ports Properties Metadata Extensions

Select transformation: AGG_SUB_PASS_PER

Transformation type: Aggregator

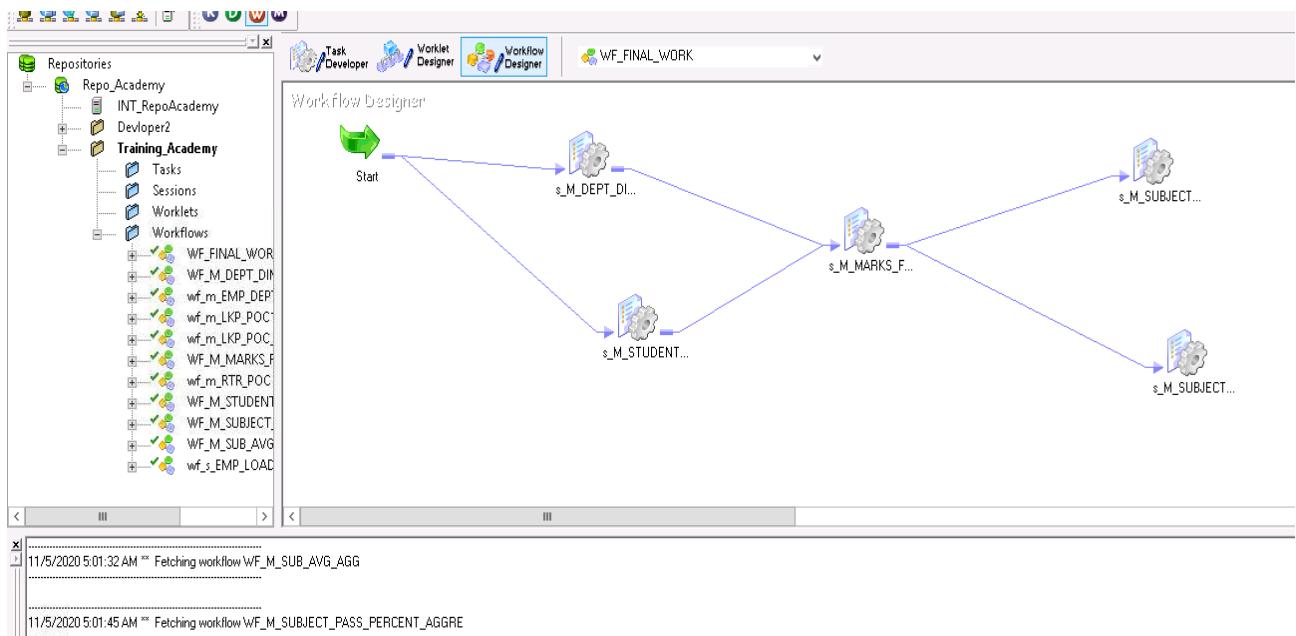
| Port Name | Datatype | Prec | Scale | I | O | V | Expression | GroupBy |
|------------------|----------|------|-------|-------------------------------------|-------------------------------------|--------------------------|--------------------------------|-------------------------------------|
| 1 DEPT_ID | nrstring | 3 | 0 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | DEPT_ID | <input checked="" type="checkbox"/> |
| 2 DEPT_NAME | nrstring | 48 | 0 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | DEPT_NAME | <input type="checkbox"/> |
| 3 01 | decimal | 5 | 2 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 4 02 | decimal | 5 | 2 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 5 03 | decimal | 5 | 2 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 6 04 | decimal | 5 | 2 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 7 05 | decimal | 5 | 2 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> |
| 8 SUB1_PASS_PER | decimal | 5 | 2 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (SUM(01) / COUNT(DEPT_ID))*100 | <input type="checkbox"/> |
| 9 SUB2_PASS_PER | decimal | 5 | 2 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (SUM(02) / COUNT(DEPT_ID))*100 | <input type="checkbox"/> |
| 10 SUB3_PASS_PER | decimal | 5 | 2 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (SUM(03) / COUNT(DEPT_ID))*100 | <input type="checkbox"/> |
| 11 SUB4_PASS_PER | decimal | 5 | 2 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (SUM(04) / COUNT(DEPT_ID))*100 | <input type="checkbox"/> |
| 12 SUB5_PASS_PER | decimal | 5 | 2 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | (SUM(05) / COUNT(DEPT_ID))*100 | <input type="checkbox"/> |

Default value:

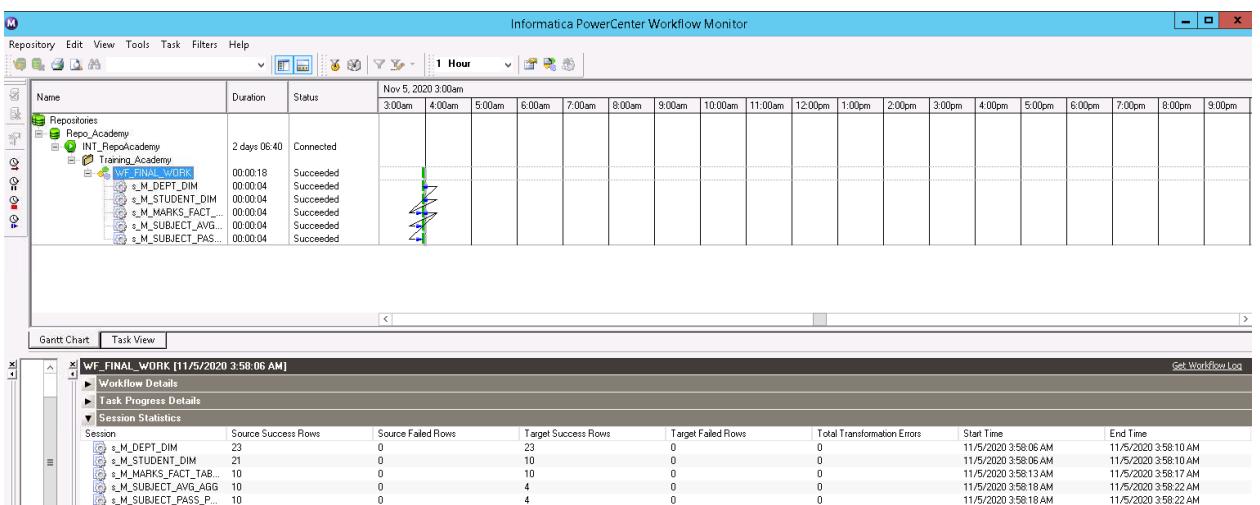
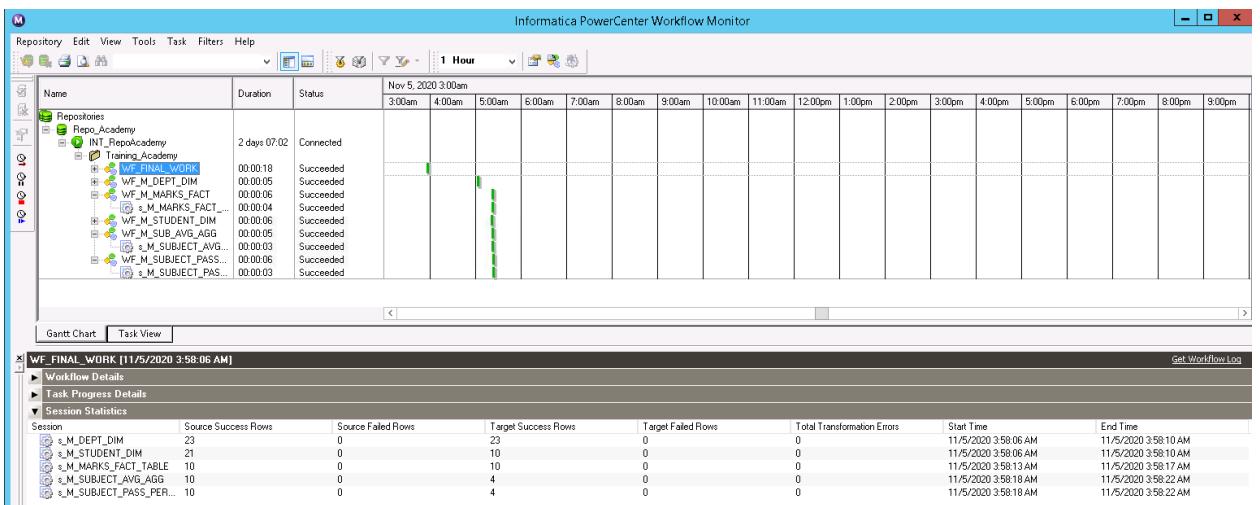
Description:

AGG_SUB_PASS_PER

2.6. Workflow



2.7. Workflow Monitor Statistics



2.8. Session Log Statistics

| Log Events for Session: s_M_DEPT_DIM | | | | | | |
|---|----------------------|---|--------|------------|--------------|---|
| Severity | Timestamp | / | Node | Thread | Message Co.. | Message |
| INFO | 11/5/2020 5:04:28 AM | | node01 | WRITER_1_1 | WRT_8035 | Load complete time: Thu Nov 05 05:04:28 2020 |
| LOAD SUMMARY | | | | | | |
| ***** | | | | | | |
| WRT_8036 Target: DEPT_DIM [Instance Name: [DEPT_DIM]] | | | | | | |
| WRT_8038 Inserted rows - Requested: 23 Applied: 23 Rejected: 0 Affected: 23 | | | | | | |
| INFO | 11/5/2020 5:04:28 AM | | node01 | WRITER_1_1 | WRT_8043 | *****END LOAD SESSION***** |
| INFO | 11/5/2020 5:04:28 AM | | node01 | WRITER_1_1 | WRT_8006 | Writer run completed. |
| INFO | 11/5/2020 5:04:28 AM | | node01 | MANAGER | PETL_24031 | ***** RUN INFO FOR TGT LOAD ORDER GROUP [1] CONCURRENT SET [1] ***** |
| Thread [READER_1_1] created for [the read stage] of partition point [SQ_Dept_Details_1_1] has completed. The total run time was insufficient for any meaningful statistics. | | | | | | |
| Thread [WRITER_1_1] created for [the write stage] of partition point [DEPT_DIM] has completed. The total run time was insufficient for any meaningful statistics. | | | | | | |
| INFO | 11/5/2020 5:04:28 AM | | node01 | MANAGER | PETL_24005 | PETL_24005 Starting post-session tasks. : (Thu Nov 05 05:04:28 2020) |
| INFO | 11/5/2020 5:04:28 AM | | node01 | POST-SESS | PETL_24091 | Thread [POST-SESS] has the ID [7] |
| INFO | 11/5/2020 5:04:28 AM | | node01 | MANAGER | PETL_24029 | PETL_24029 Post-session task completed successfully. : (Thu Nov 05 05:04:28 2020) |
| INFO | 11/5/2020 5:04:28 AM | | node01 | MAPPING | TM_6019 | The session completed with [0] row transformation errors. |
| INFO | 11/5/2020 5:04:29 AM | | node01 | MANAGER | PETL_24002 | Parallel Pipeline Engine finished |
| INFO | 11/5/2020 5:04:29 AM | | node01 | DIRECTOR | PETL_24012 | Session run completed successfully. |
| INFO | 11/5/2020 5:04:29 AM | | node01 | DIRECTOR | TM_6022 | |
| SESSION LOAD SUMMARY | | | | | | |
| ***** | | | | | | |
| INFO | 11/5/2020 5:04:29 AM | | node01 | DIRECTOR | TM_6252 | Source Load Summary |
| INFO | 11/5/2020 5:04:29 AM | | node01 | DIRECTOR | CMN_1740 | Table: [S0_Dept_Details_1_1] [Instance Name: [SQ_Dept_Details_1_1]] |
| INFO | 11/5/2020 5:04:29 AM | | node01 | DIRECTOR | TM_5253 | Target Load Summary |
| INFO | 11/5/2020 5:04:29 AM | | node01 | DIRECTOR | CMN_1740 | Table: [DEPT_DIM] [Instance Name: [DEPT_DIM]] |
| INFO | 11/5/2020 5:04:29 AM | | node01 | DIRECTOR | TM_6023 | Output Rows [23] Affected Rows [23] Applied Rows [23] Rejected Rows [0] |
| ***** | | | | | | |
| Severity: INFO | | | | | | |
| Timestamp: 11/5/2020 5:04:28 AM | | | | | | |
| Node: node01 | | | | | | |
| Thread: DIRECTOR | | | | | | |
| Process ID: 31610 | | | | | | |
| Message Code: TM_6014 | | | | | | |
| Message: Initializing session [s_M_DEPT_DIM] at [Thu Nov 05 05:04:28 2020]. | | | | | | |

S_M_DEPT_DIM

| Log Events for Session: s_M_STUDENT_DIM | | | | | | |
|---|----------------------|---|--------|--------------|--------------|---|
| Severity | Timestamp | / | Node | Thread | Message Co.. | Message |
| INFO | 11/5/2020 5:22:53 AM | | node01 | READER_1_2_1 | BLR_16008 | Reader run completed. |
| INFO | 11/5/2020 5:22:53 AM | | node01 | WRITER_1_2_1 | WRT_8005 | Writer run started. |
| INFO | 11/5/2020 5:22:53 AM | | node01 | WRITER_1_2_1 | WRT_8158 | |
| *****START LOAD SESSION***** | | | | | | |
| Load Start Time: Thu Nov 05 05:22:53 2020 | | | | | | |
| Target tables: | | | | | | |
| STUDENT_DIM | | | | | | |
| INFO | 11/5/2020 5:22:53 AM | | node01 | TRANSF_1_1_1 | DBG_21077 | DBG_21077 Create joiner cache on master relation : (Thu Nov 05 05:22:53 2020) |
| INFO | 11/5/2020 5:22:53 AM | | node01 | TRANSF_1_1_1 | TE_7212 | Increasing Index Cache size for transformation [INR_STUDENT_DIM] from [1789569370] to [178958000] |
| INFO | 11/5/2020 5:22:53 AM | | node01 | TRANSF_1_1_1 | TE_7212 | Increasing [Data Cache] size for transformation [INR_STUDENT_DIM] from [357913940] to [357914320] |
| INFO | 11/5/2020 5:22:54 AM | | node01 | TRANSF_1_1_1 | CMN_1690 | Created new data file [C:\Informatica\10.1.0\server\infa_shared\cache\PMJNR15_8_0_43.dat] and index file [C:\Informatica\10.1.0\server\infa_shared\cache\PMJNR15_8_0_43.idx] for Joiner [INR_STUDENT_DIM] |
| INFO | 11/5/2020 5:22:54 AM | | node01 | TRANSF_1_1_1 | DBG_21214 | DBG_21214 Finished joiner cache on master relation : (Thu Nov 05 05:22:54 2020) |
| INFO | 11/5/2020 5:22:54 AM | | node01 | TRANSF_1_1_1 | DBG_21216 | DBG_21216 Open master relation cache for detail joiner : (Thu Nov 05 05:22:54 2020) |
| INFO | 11/5/2020 5:22:54 AM | | node01 | TRANSF_1_1_1 | DBG_21216 | DBG_21216 Finished transformations for Source Qualifier [S0_Student_Details_1_1] Total errors [0] |
| INFO | 11/5/2020 5:22:54 AM | | node01 | TRANSF_1_1_1 | DBG_21215 | DBG_21215 Open master relation cache for detail joiner : (Thu Nov 05 05:22:54 2020) |
| INFO | 11/5/2020 5:22:54 AM | | node01 | TRANSF_1_1_1 | DBG_21215 | DBG_21215 Finished processing detail relation : (Thu Nov 05 05:22:54 2020) |
| INFO | 11/5/2020 5:22:54 AM | | node01 | TRANSF_1_1_1 | CMN_1795 | The index cache size that would hold [10] input rows from the master for [INR_STUDENT_DIM] in memory, is [2000] bytes |
| INFO | 11/5/2020 5:22:54 AM | | node01 | WRITER_1_2_1 | WRT_8167 | Start loading table [STUDENT_DIM] at: Thu Nov 05 05:22:54 2020 |
| INFO | 11/5/2020 5:22:54 AM | | node01 | TRANSF_1_2_1 | CMN_1794 | The data cache size that would hold [10] input rows from the master for [INR_STUDENT_DIM] in memory, is [1168] bytes |
| INFO | 11/5/2020 5:22:54 AM | | node01 | TRANSF_1_2_1 | DBG_21216 | Finished transformations for Source Qualifier [S0_Student_Address_1_1] Total errors [0] |
| INFO | 11/5/2020 5:22:54 AM | | node01 | WRITER_1_2_1 | WRT_8168 | End loading table [STUDENT_DIM] at: Thu Nov 05 05:22:54 2020 |
| INFO | 11/5/2020 5:22:54 AM | | node01 | WRITER_1_2_1 | WRT_8141 | Commit on end-of-data: Thu Nov 05 05:22:54 2020 |
| ***** | | | | | | |
| WRT_8006 Target: STUDENT_DIM [Instance Name: [STUDENT_DIM]] | | | | | | |
| WRT_8008 Inserted rows - Requested: 10 Applied: 10 Rejected: 0 Affected: 10 | | | | | | |
| INFO | 11/5/2020 5:22:54 AM | | node01 | WRITER_1_2_1 | WRT_8035 | Load complete time: Thu Nov 05 05:22:54 2020 |
| Severity: INFO | | | | | | |
| Timestamp: 11/5/2020 5:22:53 AM | | | | | | |
| Node: node01 | | | | | | |
| Thread: DIRECTOR | | | | | | |
| Process ID: 31610 | | | | | | |
| Message Code: TM_6014 | | | | | | |
| Message: Initializing session [s_M_STUDENT_DIM] at [Thu Nov 05 05:22:53 2020]. | | | | | | |

S_M_STUDENT_DIM

| Log Events for Session: s_M_MARKS_FACT_TABLE | | | | | | |
|---|---------------------------------|---------|---------|---------------|---------------|--|
| Save As... | Copy | Find... | Refresh | Severity | Timestamp | Node |
| Severity | Timestamp | / | Node | Thread | Message Co... | Message |
| INFO | 11/5/2020 5:23:49 AM | | node01 | LKPDP_1:READE | BLKR_16007 | Reader run started. |
| INFO | 11/5/2020 5:23:49 AM | | node01 | LKPDP_1:READE | RR_4049 | RR_4049 SQL Duet issued to database : [Thu Nov 05 05:23:49 2020] |
| INFO | 11/5/2020 5:23:49 AM | | node01 | LKPDP_1:READE | RR_4050 | RR_4050 First row returned from database to reader : [Thu Nov 05 05:23:49 2020] |
| INFO | 11/5/2020 5:23:49 AM | | node01 | LKPDP_1:READE | BLKR_16008 | Reader run completed. |
| INFO | 11/5/2020 5:23:49 AM | | node01 | LKPDP_1:TRANS | DBG_21079 | DBG_21079 Creating Lookup Cache : [Thu Nov 05 05:23:49 2020] |
| INFO | 11/5/2020 5:23:49 AM | | node01 | LKPDP_1:TRANS | DBG_21082 | Lookup table row count : 10 |
| INFO | 11/5/2020 5:23:49 AM | | node01 | LKPDP_1:TRANS | DBG_21297 | Lookup cache row count : 10 |
| INFO | 11/5/2020 5:23:49 AM | | node01 | LKPDP_1:TRANS | DBG_21294 | DBG_21294 Lookup cache creation completed : [Thu Nov 05 05:23:49 2020] |
| INFO | 11/5/2020 5:23:49 AM | | node01 | LKPDP_1:TRANS | CMN_1671 | Created new cache file PMLKUP17_10_0_44w64 [data/dk] in directory C:\Inforamica10.1\server\lnfa_shared\Cache for Lookup [LKP_STUDENT_DIM] |
| INFO | 11/5/2020 5:23:49 AM | | node01 | LKPDP_1:TRANS | DBG_21261 | LKP_STUDENT_DIM Index cache size = [89473600]. Data cache size = [178962432] |
| INFO | 11/5/2020 5:23:49 AM | | node01 | LKPDP_1:TRANS | DBG_21216 | Finished transformations for Source Qualifier [LKP_STUDENT_DIM(DS0)]. Total errors [0] |
| INFO | 11/5/2020 5:23:49 AM | | node01 | DIRECTOR | TT_11184 | Starting additional concurrent pipeline to build the lookup cache needed by Lookup transformation [LKP_DEPT_DIM] |
| INFO | 11/5/2020 5:23:49 AM | | node01 | LKPDP_2 | TM_6660 | Total Buffer Pool size is 605824 bytes and Block size is 65536 bytes. |
| INFO | 11/5/2020 5:23:49 AM | | node01 | LKPDP_2:READE | PETL_24091 | Thread [LKPDP_2:READER_1_1] has the ID [12] |
| INFO | 11/5/2020 5:23:49 AM | | node01 | LKPDP_2:READE | DBG_21438 | Reader Source is [orcl1]. user [irloadm] |
| INFO | 11/5/2020 5:23:49 AM | | node01 | WRITER_1_1 | WRT_8124 | Target Table MARKS_FACT:SQL INSERT statement: |
| | | | | | | INSERT INTO MARKS_FACT(STUDENT_ID, STUDENT_NAME, DEPT_ID, DEPT_NAME, SUBJECT1, SUBJECT2, SUBJECT3, SUBJECT4, SUBJECT5, TOTAL_AVERAGE, RESULT1) VALUES (?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?, ?) |
| INFO | 11/5/2020 5:23:49 AM | | node01 | WRITER_1_1 | WRT_8020 | No column marked as primary key for table [MARKS_FACT]. Target connection group #1 consists of target(s) [MARKS_FACT] |
| INFO | 11/5/2020 5:23:49 AM | | node01 | WRITER_1_1 | WRT_8270 | Writer initialization complete. |
| INFO | 11/5/2020 5:23:49 AM | | node01 | WRITER_1_1 | WRT_8003 | Reader run started. |
| INFO | 11/5/2020 5:23:49 AM | | node01 | READER_1_1 | BLKR_16007 | Skipped over [1] lines. |
| INFO | 11/5/2020 5:23:49 AM | | node01 | READER_1_1 | FR_3000 | DBG_21430 Reading data from input source file [C:\Inforamica10.1\server\lnfa_shared\SrcFiles\Student_Marks1.txt] : [Thu Nov 05 05:23:49 2020] |
| INFO | 11/5/2020 5:23:49 AM | | node01 | READER_1_1 | DBG_21430 | Writer run started. |
| INFO | 11/5/2020 5:23:49 AM | | node01 | WRITER_1_1 | WRT_8005 | *****START LOAD SESSION***** |
| | | | | | | Load Start Time: Thu Nov 05 05:23:49 2020 |
| | | | | | | Target tables: |
| Severity: INFO | Timestamp: 11/5/2020 5:23:48 AM | | | | | |
| Node: node01 | | | | | | |
| Thread: DIRECTOR | | | | | | |
| Process ID: 5708 | | | | | | |
| Message Code: TM_5014 | | | | | | |
| Message: Initializing session [s_M_MARKS_FACT_TABLE] at [Thu Nov 05 05:23:48 2020]. | | | | | | |

S_M_MARKS_FACT

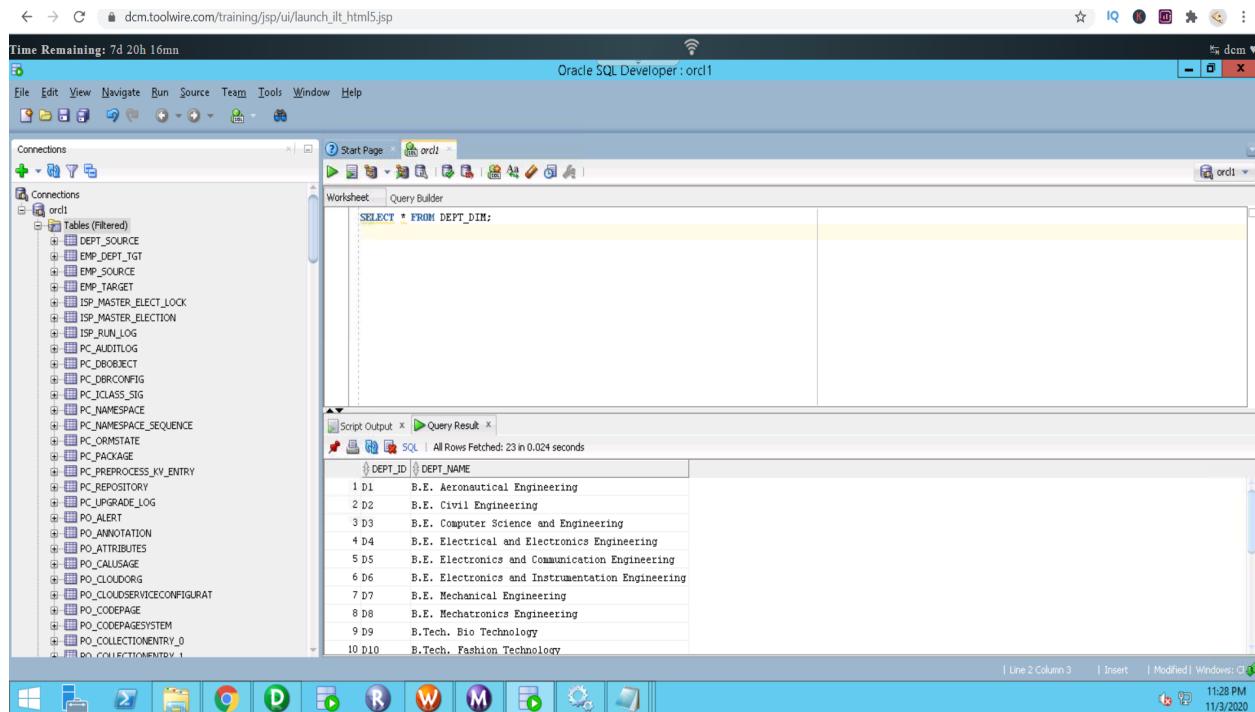
| Log Events for Session: s_M_SUBJECT_AVG_AGG | | | | | | |
|--|---------------------------------|---------|---------|------------|---------------|---|
| Save As... | Copy | Find... | Refresh | Severity | Timestamp | Node |
| Severity | Timestamp | / | Node | Thread | Message Co... | Message |
| INFO | 11/5/2020 5:24:27 AM | | node01 | READER_1_1 | RR_4010 | SO instance [SQ_MARKS_FACT-1] SQL Query (SELECT MARKS_FACT STUDENT_ID, MARKS_FACT STUDENT_NAME, MARKS_FACT DEPT_ID, MARKS_FACT DEPT_NAME, MARKS_FACT SUBJECT1, MARKS_FACT SUBJECT2, MARKS_FACT SUBJECT3, MARKS_FACT SUBJECT4, MARKS_FACT SUBJECT5, MARKS_FACT.TOTAL_MARKS_FACT.AVERAGE, MARKS_FACT.RESULT1) FROM MARKS_FACT |
| INFO | 11/5/2020 5:24:27 AM | | node01 | READER_1_1 | RR_40493 | RR_4049 SQL Duet issued to database : [Thu Nov 05 05:24:27 2020] |
| INFO | 11/5/2020 5:24:27 AM | | node01 | READER_1_1 | RR_4050 | RR_4050 First row returned from database to reader : [Thu Nov 05 05:24:27 2020] |
| INFO | 11/5/2020 5:24:27 AM | | node01 | READER_1_1 | BLKR_16019 | Read [10] rows; read [0] error rows for source table [MARKS_FACT] instance name [MARKS_FACT_1] |
| INFO | 11/5/2020 5:24:27 AM | | node01 | READER_1_1 | BLKR_16008 | Reader run completed. |
| INFO | 11/5/2020 5:24:27 AM | | node01 | TRANSF_1_1 | SORT_40240 | SORT_40240 Start of input for Transformation [SRT_STU_AVG_AGG] : [Thu Nov 05 05:24:27 2020] |
| INFO | 11/5/2020 5:24:27 AM | | node01 | TRANSF_1_1 | SORT_40421 | SORT_40421 End of input for Transformation [SRT_STU_AVG_AGG] : [Thu Nov 05 05:24:27 2020] |
| INFO | 11/5/2020 5:24:27 AM | | node01 | TRANSF_1_1 | SORT_40422 | SORT_40422 Start of input for Transformation [SRT_STU_AVG_AGG] : [Thu Nov 05 05:24:27 2020] |
| INFO | 11/5/2020 5:24:27 AM | | node01 | TRANSF_1_1 | SORT_40423 | SORT_40423 End of input for Transformation [SRT_STU_AVG_AGG] : [Thu Nov 05 05:24:27 2020] |
| INFO | 11/5/2020 5:24:27 AM | | node01 | TRANSF_1_1 | DBG_21216 | Finishes transformations for Source Qualifier [SQ_MARKS_FACT-1]. Total errors [0] |
| INFO | 11/5/2020 5:24:27 AM | | node01 | TRANSF_1_1 | SORT_40420 | SORT_40420 Start of input for Transformation [SRT_STU_AVG_AGG] : [Thu Nov 05 05:24:27 2020] |
| INFO | 11/5/2020 5:24:27 AM | | node01 | TRANSF_1_1 | SORT_40421 | SORT_40421 End of input for Transformation [SRT_STU_AVG_AGG] : [Thu Nov 05 05:24:27 2020] |
| INFO | 11/5/2020 5:24:27 AM | | node01 | TRANSF_1_1 | SORT_40422 | SORT_40422 Start of input for Transformation [SRT_STU_AVG_AGG] : [Thu Nov 05 05:24:27 2020] |
| INFO | 11/5/2020 5:24:27 AM | | node01 | TRANSF_1_1 | SORT_40423 | SORT_40423 End of input for Transformation [SRT_STU_AVG_AGG] : [Thu Nov 05 05:24:27 2020] |
| INFO | 11/5/2020 5:24:27 AM | | node01 | TRANSF_1_2 | SORT_40423 | SORT_40423 End of sort for Sorter Transformation [SRT_STU_AVG_AGG] : [Thu Nov 05 05:24:27 2020] |
| INFO | 11/5/2020 5:24:27 AM | | node01 | TRANSF_1_2 | TE_7032 | The B-Tree being managed in files C:\Inforamica10.1\server\lnfa_shared\Cache\PMAGG19_5_0_45.dat for Data and |
| | | | | | | C:\Inforamica10.1\server\lnfa_shared\Cache\PMAGG19_5_0_45.idx for Index has: |
| | | | | | | Index Size: 7 |
| | | | | | | Page Size: 162 |
| | | | | | | Order: 100 |
| | | | | | | Minimum Order: 50 |
| | | | | | | Height: 1 |
| | | | | | | Entries: 4 |
| | | | | | | IndexPageSize: 1096 |
| | | | | | | IndexPages: 14934 |
| | | | | | | DataPageSize: 616 |
| | | | | | | DataPages: 91742 |
| INFO | 11/5/2020 5:24:27 AM | | node01 | TRANSF_1_2 | DBG_21216 | Finished transformations for Source Qualifier [AGG_STU_AVG_AGG]. Total errors [0] |
| INFO | 11/5/2020 5:24:27 AM | | node01 | WRITER_1_1 | WRT_8167 | Start loading table [SUBJECT_AVERAGE_AGGREGATE] at: Thu Nov 05 05:24:27 2020 |
| INFO | 11/5/2020 5:24:27 AM | | node01 | WRITER_1_1 | WRT_8168 | End loading table [SUBJECT_AVERAGE_AGGREGATE] at: Thu Nov 05 05:24:27 2020 |
| INFO | 11/5/2020 5:24:27 AM | | node01 | WRITER_1_1 | WRT_8141 | |
| Severity: INFO | Timestamp: 11/5/2020 5:24:26 AM | | | | | |
| Node: node01 | | | | | | |
| Thread: DIRECTOR | | | | | | |
| Process ID: 5708 | | | | | | |
| Message Code: TM_5014 | | | | | | |
| Message: Initializing session [s_M_SUBJECT_AVG_AGG] at [Thu Nov 05 05:24:26 2020]. | | | | | | |

S_M_SUBJECT_AVG_AGG

| Log Events for Session: s_M_SUBJECT_PASS_PER_AGG | | | | | | |
|--|----------------------|---------|--------------|-------------|--|--|
| Save As... | Copy | Find... | Refresh | | | |
| Severity | Timestamp / | Node | Thread | Message Co. | Message | |
| INFO | 11/5/2020 5:35:28 AM | node01 | PRE-SESS | DBG_21349 | No load constraints for Target [SUBJECT_PASS_PERCENT_AGGRE]. It does not reference any primary table from the same active source or transaction generator. | |
| INFO | 11/5/2020 5:35:28 AM | node01 | PRE-SESS | DBG_21104 | Determining truncate order for [SUBJECT_PASS_PERCENT_AGGRE] [instance id 6] | |
| INFO | 11/5/2020 5:35:28 AM | node01 | PRE-SESS | DBG_21591 | Truncate order for [SUBJECT_PASS_PERCENT_AGGRE] [instance id 6] determined successfully | |
| INFO | 11/5/2020 5:35:28 AM | node01 | PRE-SESS | WRT_0365 | WRT_0365 Starting truncate for target table [SUBJECT_PASS_PERCENT_AGGRE] : (Thu Nov 05 05:35:20 2020) | |
| INFO | 11/5/2020 5:35:28 AM | node01 | PRE-SESS | WRT_0022 | WRT_0022 Truncate table for table [SUBJECT_PASS_PERCENT_AGGRE] succeeded. : (Thu Nov 05 05:35:20 2020) | |
| INFO | 11/5/2020 5:35:28 AM | node01 | MANAGER | PETL_24027 | PETL_24027 Pre-session task completed successfully. : (Thu Nov 05 05:35:20 2020) | |
| INFO | 11/5/2020 5:35:28 AM | node01 | DIRECTOR | PETL_24006 | Starting data movement. | |
| INFO | 11/5/2020 5:35:28 AM | node01 | MAPPRIN | TM_8660 | Total Buffer Pool size is 1219648 bytes and Block size is 65536 bytes. | |
| INFO | 11/5/2020 5:35:28 AM | node01 | READER_1_1_1 | PETL_24091 | Thread [READER_1_1_1] has the ID [5]. | |
| INFO | 11/5/2020 5:35:28 AM | node01 | READER_1_1_1 | DBG_21438 | Reader Source is [node1], user [infoadmin] | |
| INFO | 11/5/2020 5:35:28 AM | node01 | READER_1_1_1 | BLKR_16003 | Initialization completed successfully. | |
| INFO | 11/5/2020 5:35:28 AM | node01 | TRANSF_1_1_1 | PETL_24091 | Thread [TRANSF_1_1_1] has the ID [6]. | |
| INFO | 11/5/2020 5:35:28 AM | node01 | TRANSF_1_1_1 | PETL_24091 | Thread [TRANSF_1_1_1] has the ID [7]. | |
| INFO | 11/5/2020 5:35:28 AM | node01 | WRITER_1_1_1 | PETL_24091 | Thread [WRITER_1_1_1] has the ID [8]. | |
| INFO | 11/5/2020 5:35:28 AM | node01 | WRITER_1_1_1 | WRT_0147 | Writer Target is database [node1], user [infoadmin], bulk mode [OFF] | |
| INFO | 11/5/2020 5:35:28 AM | node01 | WRITER_1_1_1 | WRT_0124 | Target Table is [SUBJECT_PASS_PERCENT_AGGRE]. SQL INSERT statement: | |
| | | | | | INSERT INTO [SUBJECT_PASS_PERCENT_AGGRE](DEPT_ID,DEPT_NAME,SUBJECT1_PASS_PERCENTAGE,SUBJECT2_PASS_PERCENTAGE,SUBJECT3_PASS_PERCENTAGE,SUBJECT4_PASS_PERCENTAGE,SUBJECT5_PASS_PERCENTAGE,SUBJECT6_PASS_PERCENTAGE,SUBJECT7_PASS_PERCENTAGE,SUBJECT8_PASS_PERCENTAGE) VALUES (?,?,?,?,?,?,?,?,?) | |
| INFO | 11/5/2020 5:35:28 AM | node01 | WRITER_1_1_1 | WRT_8020 | Writer run started. | |
| INFO | 11/5/2020 5:35:28 AM | node01 | WRITER_1_1_1 | WRT_8270 | Target connection group #1 consists of target(s) [SUBJECT_PASS_PERCENT_AGGRE] | |
| INFO | 11/5/2020 5:35:28 AM | node01 | WRITER_1_1_1 | WRT_8003 | Writer initialization complete. | |
| INFO | 11/5/2020 5:35:28 AM | node01 | READER_1_1_1 | BLKR_16007 | Reader run started. | |
| INFO | 11/5/2020 5:35:28 AM | node01 | WRITER_1_1_1 | WRT_8005 | Writer run started. | |
| INFO | 11/5/2020 5:35:28 AM | node01 | READER_1_1_1 | RR_4010 | SQL instance [SQL_MARKS_FACT_1] SQL Query [SELECT MARKS_FACT.DEPT_ID, MARKS_FACT.DEPT_NAME, MARKS_FACT.SUBJECT1, MARKS_FACT.SUBJECT2, MARKS_FACT.SUBJECT3, MARKS_FACT.SUBJECT4, MARKS_FACT.SUBJECT5 FROM MARKS_FACT] | |
| INFO | 11/5/2020 5:35:28 AM | node01 | WRITER_1_1_1 | WRT_0158 | *****START LOAD SESSION***** | |
| | | | | | Load Start Time: Thu Nov 05 05:35:28 2020 | |
| | | | | | Target tables: | |

S M SUBJECT PASS PER AGG

2.9. Output



Time Remaining: 7d 20h 16mn

Oracle SQL Developer : orcl1

File Edit View Navigate Run Source Team Tools Window Help

Connections

Start Page

Worksheet Query Builder

```
SELECT * FROM DEPT_DIM;
```

Script Output x Query Result x

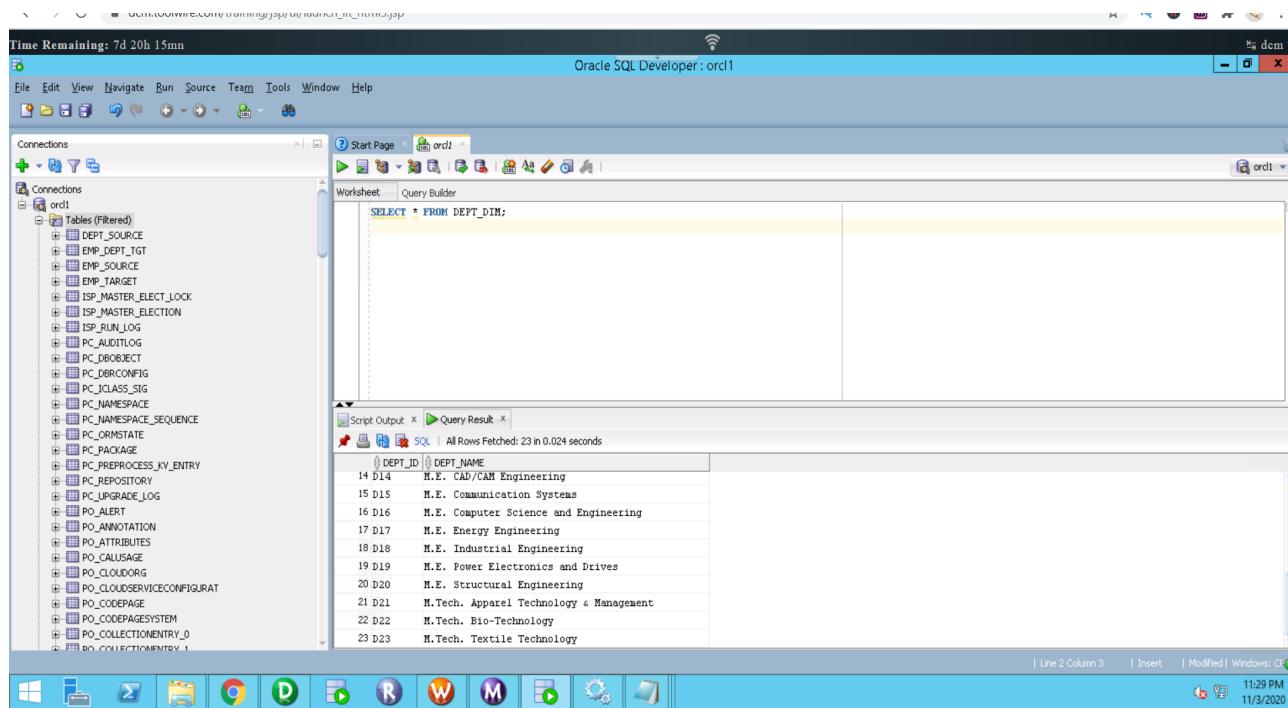
SQL All Rows Fetched: 23 in 0.024 seconds

| DEPT_ID | DEPT_NAME |
|---------|--|
| 1 D1 | B.E. Aeronautical Engineering |
| 2 D2 | B.E. Civil Engineering |
| 3 D3 | B.E. Computer Science and Engineering |
| 4 D4 | B.E. Electrical and Electronics Engineering |
| 5 D5 | B.E. Electronics and Communication Engineering |
| 6 D6 | B.E. Electronics and Instrumentation Engineering |
| 7 D7 | B.E. Mechanical Engineering |
| 8 D8 | B.E. Mechatronics Engineering |
| 9 D9 | B.Tech. Bio Technology |
| 10 D10 | B.Tech. Fashion Technology |

Line 2 Column 3 | Insert | Modified | Windows: C:\

11:28 PM 11/3/2020

DEPT_DIM



Time Remaining: 7d 20h 15mn

Oracle SQL Developer : orcl1

File Edit View Navigate Run Source Team Tools Window Help

Connections

Start Page

Worksheet Query Builder

```
SELECT * FROM DEPT_DIM;
```

Script Output x Query Result x

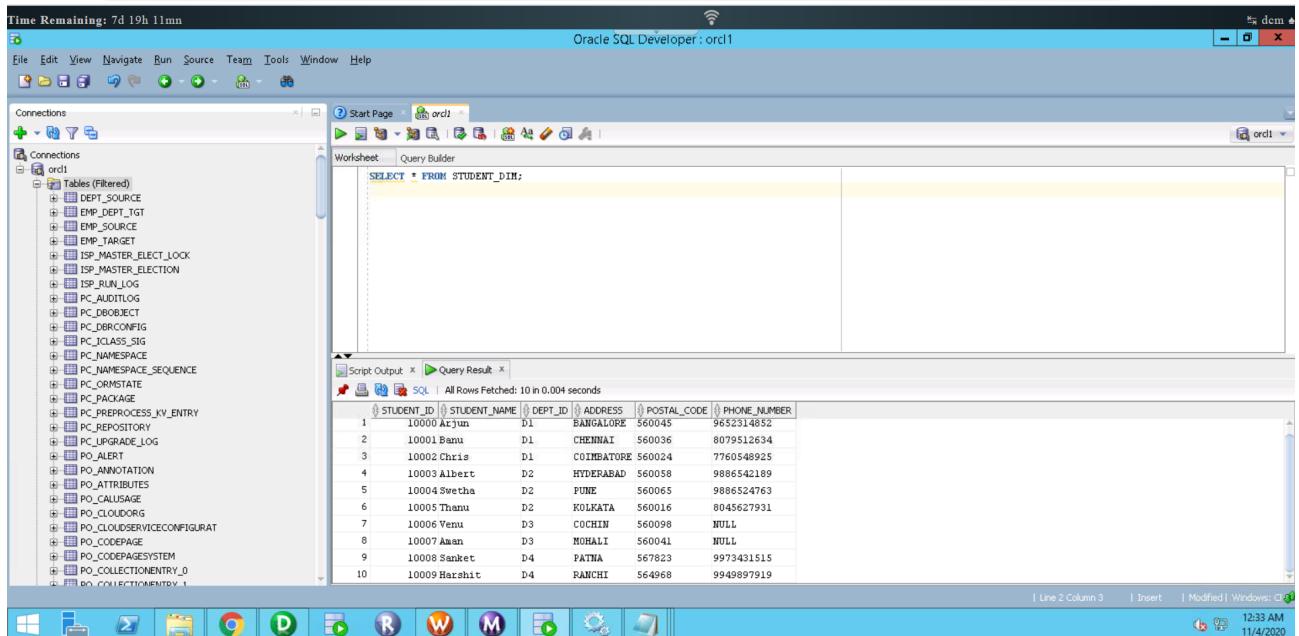
SQL All Rows Fetched: 23 in 0.024 seconds

| DEPT_ID | DEPT_NAME |
|---------|---|
| 14 D14 | M.E. CAD/CAM Engineering |
| 15 D15 | M.E. Communication Systems |
| 16 D16 | M.E. Computer Science and Engineering |
| 17 D17 | M.E. Energy Engineering |
| 18 D18 | M.E. Industrial Engineering |
| 19 D19 | M.E. Power Electronics and Drives |
| 20 D20 | M.E. Structural Engineering |
| 21 D21 | M.Tech. Apparel Technology & Management |
| 22 D22 | M.Tech. Bio-Technology |
| 23 D23 | M.Tech. Textile Technology |

Line 2 Column 3 | Insert | Modified | Windows: C:\

11:29 PM 11/3/2020

DEPT_DIM



Time Remaining: 7d 19h 11mn

Oracle SQL Developer : orcl1

File Edit View Navigate Run Source Team Tools Window Help

Connections

Start Page orcl1

Worksheet Query Builder

```
SELECT * FROM STUDENT_DIM;
```

Script Output x Query Result x

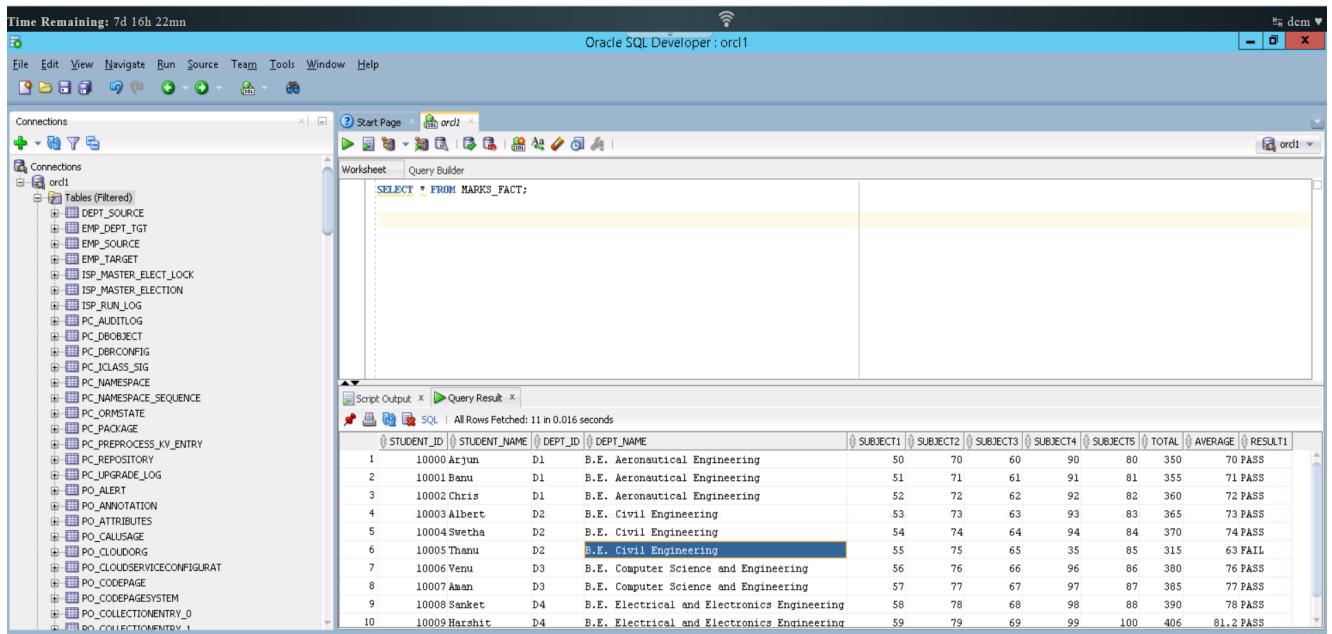
All Rows Fetched: 10 in 0.004 seconds

| STUDENT_ID | STUDENT_NAME | DEPT_ID | ADDRESS | POSTAL_CODE | PHONE_NUMBER |
|------------|---------------|---------|------------|-------------|--------------|
| 1 | 10000 Arjun | D1 | BANGALORE | 560045 | 9652314852 |
| 2 | 10001 Bannu | D1 | CHENNAI | 560036 | 8079512634 |
| 3 | 10002 Chris | D1 | COIMBATORE | 560024 | 7760548925 |
| 4 | 10003 Albert | D2 | HYDERABAD | 560058 | 9886542189 |
| 5 | 10004 Svetna | D2 | PUNE | 560065 | 9886524763 |
| 6 | 10005 Tharu | D2 | KOLKATA | 560016 | 8045627931 |
| 7 | 10006 Venu | D3 | COCHIN | 560098 | NULL |
| 8 | 10007 Aman | D3 | MOHALI | 560041 | NULL |
| 9 | 10008 Sanket | D4 | PATNA | 567823 | 9973431515 |
| 10 | 10009 Harshit | D4 | RANCHI | 564968 | 9949897919 |

Line 2 Column 3 | Insert | Modified | Windows: 0

12:33 AM 11/4/2020

STUDENT_DIM



Time Remaining: 7d 16h 22mn

Oracle SQL Developer : orcl1

File Edit View Navigate Run Source Team Tools Window Help

Connections

Start Page orcl1

Worksheet Query Builder

```
SELECT * FROM MARKS_FACT;
```

Script Output x Query Result x

All Rows Fetched: 11 in 0.016 seconds

| STUDENT_ID | STUDENT_NAME | DEPT_ID | DEPT_NAME | SUBJECT1 | SUBJECT2 | SUBJECT3 | SUBJECT4 | SUBJECTS | TOTAL | AVERAGE | RESULT |
|------------|---------------|---------|---|----------|----------|----------|----------|----------|-------|---------|--------|
| 1 | 10000 Arjun | D1 | B.E. Aeronautical Engineering | 50 | 70 | 60 | 90 | 80 | 350 | 70 | PASS |
| 2 | 10001 Bannu | D1 | B.E. Aeronautical Engineering | 51 | 71 | 61 | 91 | 81 | 355 | 71 | PASS |
| 3 | 10002 Chris | D1 | B.E. Aeronautical Engineering | 52 | 72 | 62 | 92 | 82 | 360 | 72 | PASS |
| 4 | 10003 Albert | D2 | B.E. Civil Engineering | 53 | 73 | 63 | 93 | 83 | 365 | 73 | PASS |
| 5 | 10004 Svetna | D2 | B.E. Civil Engineering | 54 | 74 | 64 | 94 | 84 | 370 | 74 | PASS |
| 6 | 10005 Tharu | D2 | B.E. Civil Engineering | 55 | 75 | 65 | 95 | 85 | 315 | 65 | FAIL |
| 7 | 10006 Venu | D3 | B.E. Computer Science and Engineering | 56 | 76 | 66 | 96 | 86 | 380 | 76 | PASS |
| 8 | 10007 Aman | D3 | B.E. Computer Science and Engineering | 57 | 77 | 67 | 97 | 87 | 385 | 77 | PASS |
| 9 | 10008 Sanket | D4 | B.E. Electrical and Electronics Engineering | 58 | 78 | 68 | 98 | 88 | 390 | 78 | PASS |
| 10 | 10009 Harshit | D4 | B.E. Electrical and Electronics Engineering | 59 | 79 | 69 | 99 | 100 | 406 | 81.2 | PASS |

MARKS_FACT

Time Remaining: 7d 15h 2mn

Oracle SQL Developer: orcl1

File Edit View Navigate Run Source Team Tools Window Help

Connections

Start Page Worksheet Query Builder

SELECT * FROM SUBJECT_AVERAGE_AGGREGATE;

Script Output x Query Result x

All Rows Fetched: 4 in 0 seconds

| DEPT_ID | DEPT_NAME | SUBJECT1_AVERAGE | SUBJECT2_AVERAGE | SUBJECT3_AVERAGE | SUBJECT4_AVERAGE | SUBJECT5_AVERAGE |
|---------|---|------------------|------------------|------------------|------------------|------------------|
| 1 D1 | B.E. Aeronautical Engineering | 51 | 71 | 61 | 91 | 81 |
| 2 D2 | B.E. Civil Engineering | 54 | 74 | 64 | 74 | 84 |
| 3 D3 | B.E. Computer Science and Engineering | 56.5 | 76.5 | 66.5 | 96.5 | 86.5 |
| 4 D4 | B.E. Electrical and Electronics Engineering | 58.5 | 78.5 | 68.5 | 98.5 | 94 |

SUBJECT_AVERAGE_AGGREGATE

Start Page Worksheet Query Builder

SELECT * FROM SUBJECT_PASS_PERCENT_AGGRE ;

Script Output x Query Result x

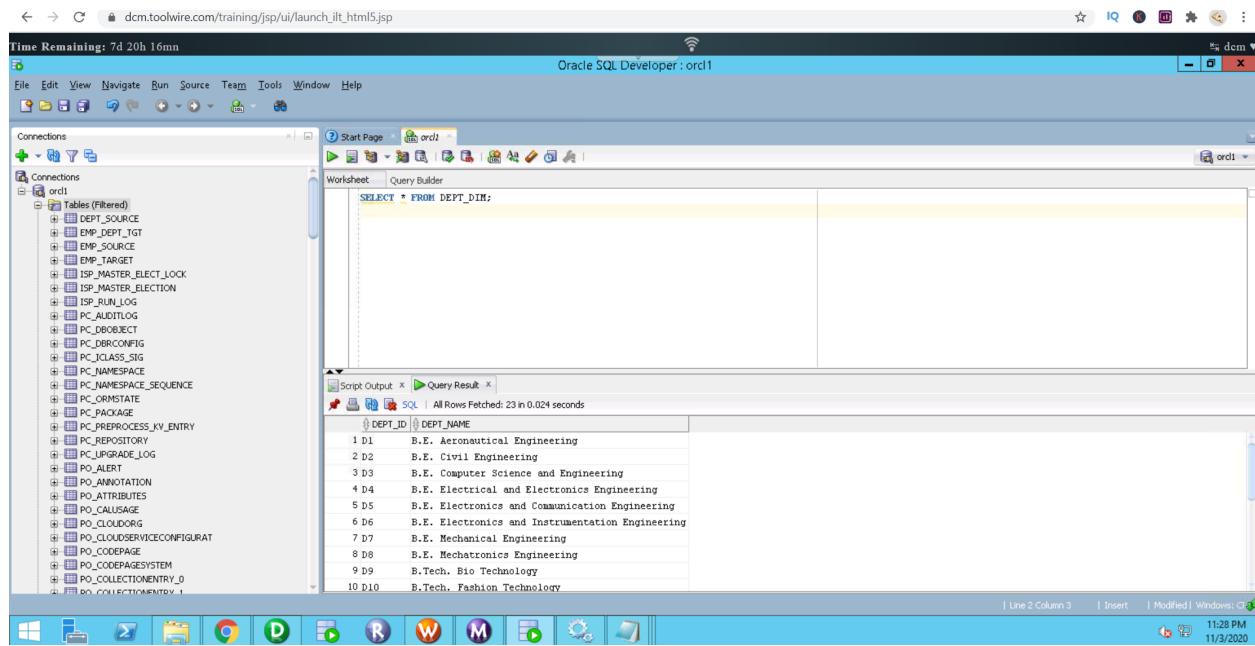
All Rows Fetched: 4 in 0 seconds

| DEPT_ID | DEPT_NAME | SUBJECT1_PASS_PERCENTAGE | SUBJECT2_PASS_PERCENTAGE | SUBJECT3_PASS_PERCENTAGE | SUBJECT4_PASS_PERCENTAGE | SUBJ |
|---------|---|--------------------------|--------------------------|--------------------------|--------------------------|-------|
| 1 D1 | B.E. Aeronautical Engineering | 100 | 100 | 100 | 100 | 100 |
| 2 D2 | B.E. Civil Engineering | 100 | 100 | 100 | 100 | 66.67 |
| 3 D3 | B.E. Computer Science and Engineering | 100 | 100 | 100 | 100 | 100 |
| 4 D4 | B.E. Electrical and Electronics Engineering | 100 | 100 | 100 | 100 | 100 |

SUBJECT_PASS_PERCENT_AGGRE

2.10. Testing

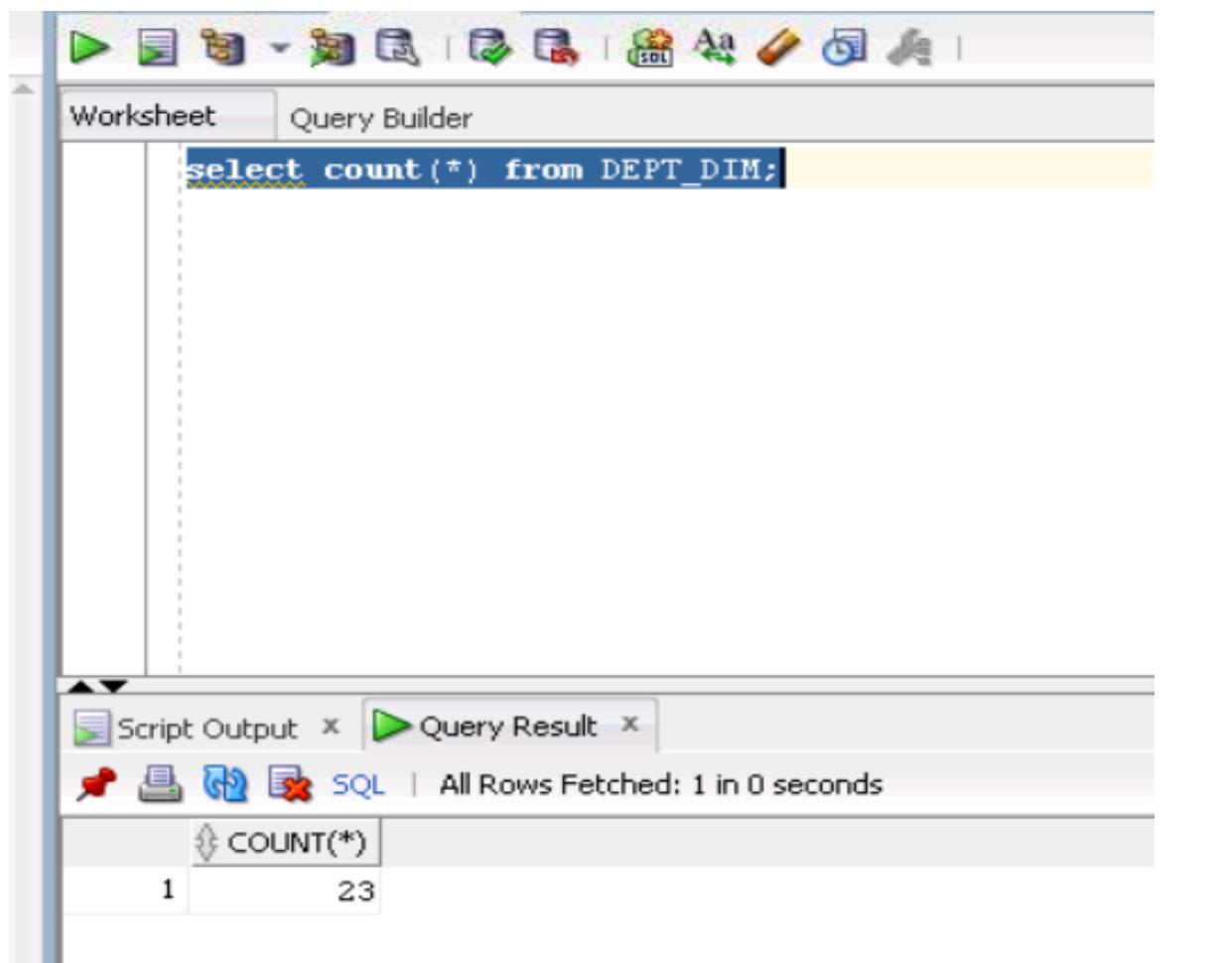
2.10.1. DEPT_DIM



The screenshot shows the Oracle SQL Developer interface. The 'Connections' sidebar on the left lists a connection named 'ord1' which is expanded to show tables like DEPT_SOURCE, EMP_SOURCE, and DEPT_DIM. The 'Worksheet' tab in the center contains a SQL query: 'SELECT * FROM DEPT_DIM;'. The 'Query Result' tab below shows the following data:

| DEPT_ID | DEPT_NAME |
|---------|--|
| 1 D1 | B.E. Aeronautical Engineering |
| 2 D2 | B.E. Civil Engineering |
| 3 D3 | B.E. Computer Science and Engineering |
| 4 D4 | B.E. Electrical and Electronics Engineering |
| 5 D5 | B.E. Electronics and Communication Engineering |
| 6 D6 | B.E. Electronics and Instrumentation Engineering |
| 7 D7 | B.E. Mechanical Engineering |
| 8 D8 | B.E. Mechatronics Engineering |
| 9 D9 | B.Tech. Bio Technology |
| 10 D10 | B.Tech. Fashion Technology |

The status bar at the bottom right indicates the time as 11:28 PM and the date as 11/3/2020.

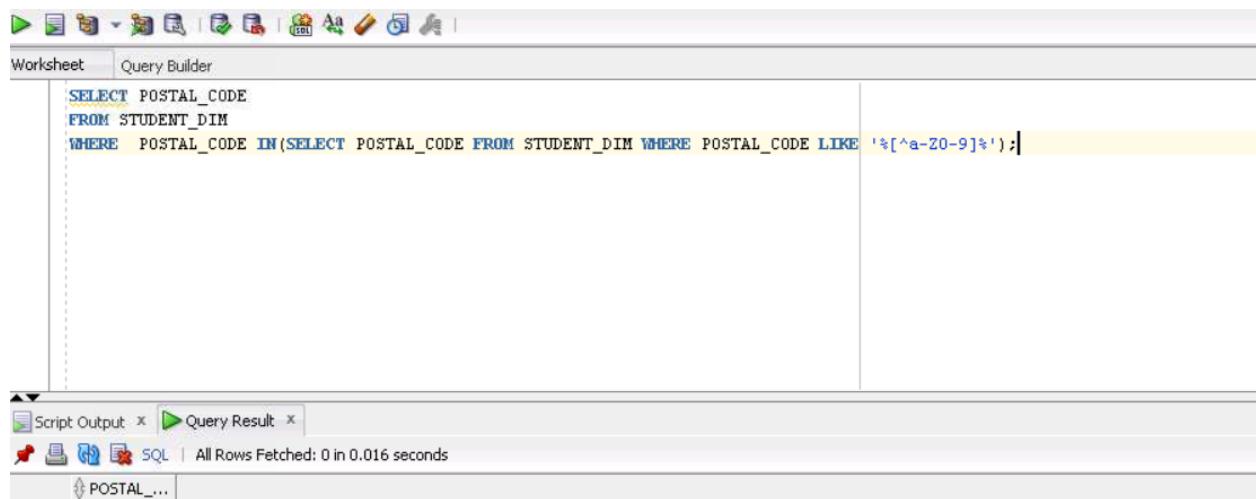


The screenshot shows a SQL worksheet interface with the following details:

- Toolbar:** Standard icons for file operations, search, and database management.
- Tab Bar:** "Worksheet" is the active tab, followed by "Query Builder".
- Query Editor:** The query `select count(*) from DEPT_DIM;` is entered in the worksheet area.
- Result Area:** The "Query Result" tab is active, showing the output of the query:

| | COUNT(*) |
|---|----------|
| 1 | 23 |
- Script Output:** An inactive tab showing a script editor.
- Status Bar:** "All Rows Fetched: 1 in 0 seconds".

2.10.2. STUDENT_DIM



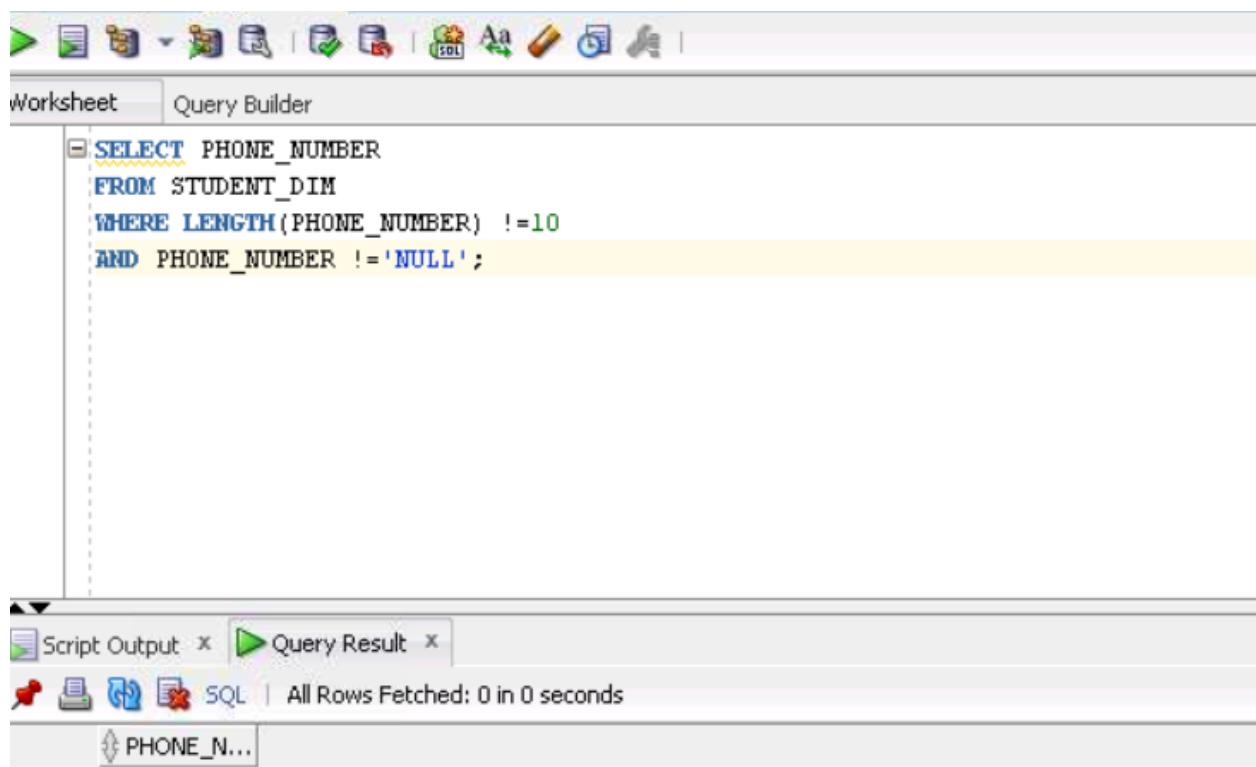
Worksheet Query Builder

```
SELECT POSTAL_CODE
FROM STUDENT_DIM
WHERE POSTAL_CODE IN (SELECT POSTAL_CODE FROM STUDENT_DIM WHERE POSTAL_CODE LIKE '%[^a-zA-Z0-9%]');
```

Script Output Query Result

SQL | All Rows Fetched: 0 in 0.016 seconds

POSTAL_...



Worksheet Query Builder

```
SELECT PHONE_NUMBER
FROM STUDENT_DIM
WHERE LENGTH(PHONE_NUMBER) != 10
AND PHONE_NUMBER != 'NULL';
```

Script Output Query Result

SQL | All Rows Fetched: 0 in 0 seconds

PHONE_N...

The screenshot shows a SQL query editor interface. The top window is titled 'Worksheet' and contains the following SQL code:

```
SELECT ADDRESS
FROM STUDENT_DIM
WHERE ADDRESS = LOWER(ADDRESS);
```

The bottom window is titled 'Query Result' and displays the results of the query. The results table has one column labeled 'ADDRESS' with a single row containing the value 'ADDRESS'.

2.10.2. MARKS_FACT

The image shows a screenshot of a SQL query editor interface. The top window is titled 'Worksheet' and contains a SQL query:

```
SELECT TOTAL FROM MARKS_FACT
WHERE TOTAL <> (SUBJECT1+SUBJECT2+SUBJECT3+SUBJECT4+SUBJECT5);
```

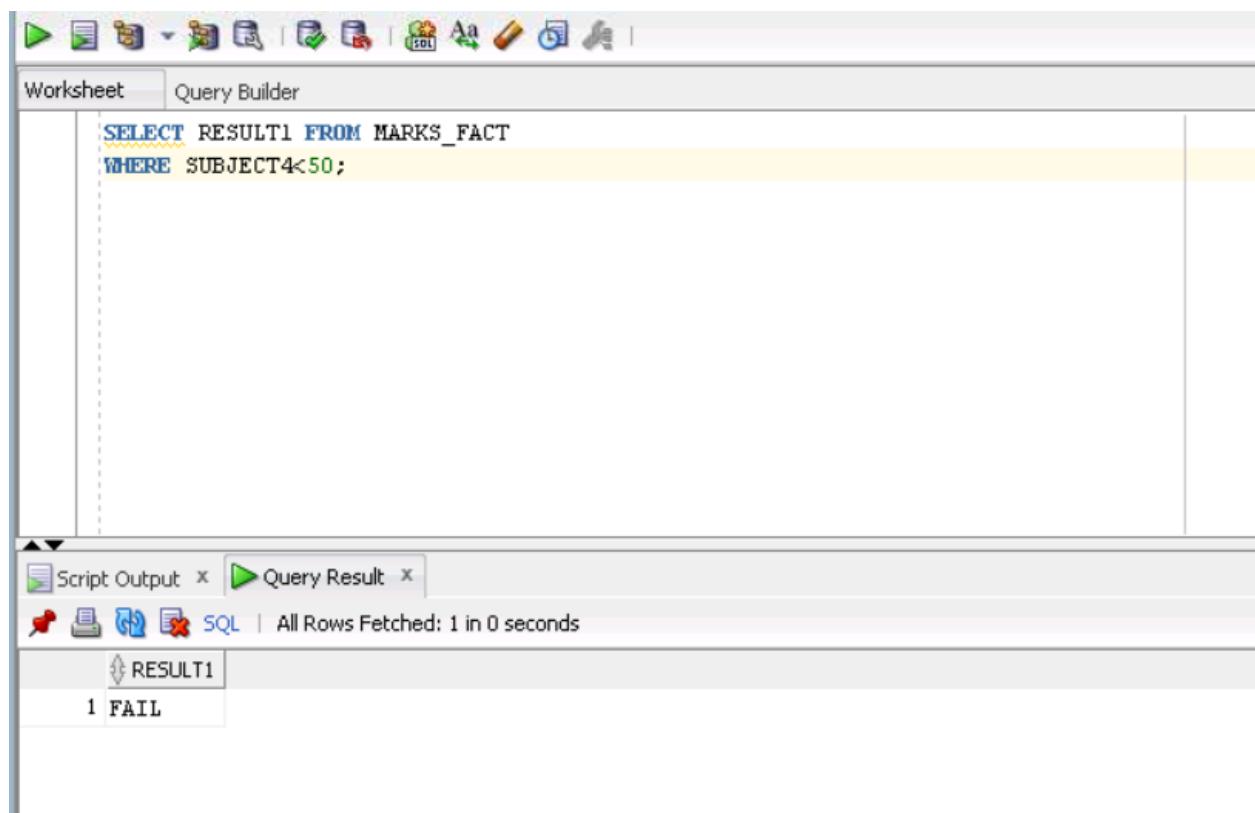
The bottom window is titled 'Query Result' and shows the results of the query:

| TOTAL |
|-------|
| |

Below the table, the status bar indicates: 'All Rows Fetched: 0 in 0.016 seconds'.

The screenshot shows a SQL worksheet interface with the following details:

- Toolbar:** Standard icons for file operations, search, and database management.
- Tab Bar:** "Worksheet" is the active tab, and "Query Builder" is also listed.
- Query Editor:** The query is:SELECT AVERAGE FROM MARKS_FACT
WHERE AVERAGE <> ((SUBJECT1+SUBJECT2+SUBJECT3+SUBJECT4+SUBJECT5)/5);
- Result Panel:** Shows the "Query Result" tab, which displays the results of the query.
- Result Data:** The result table has one row with the column "AVERAGE".
- Message Bar:** Shows "All Rows Fetched: 0 in 0.015 seconds".



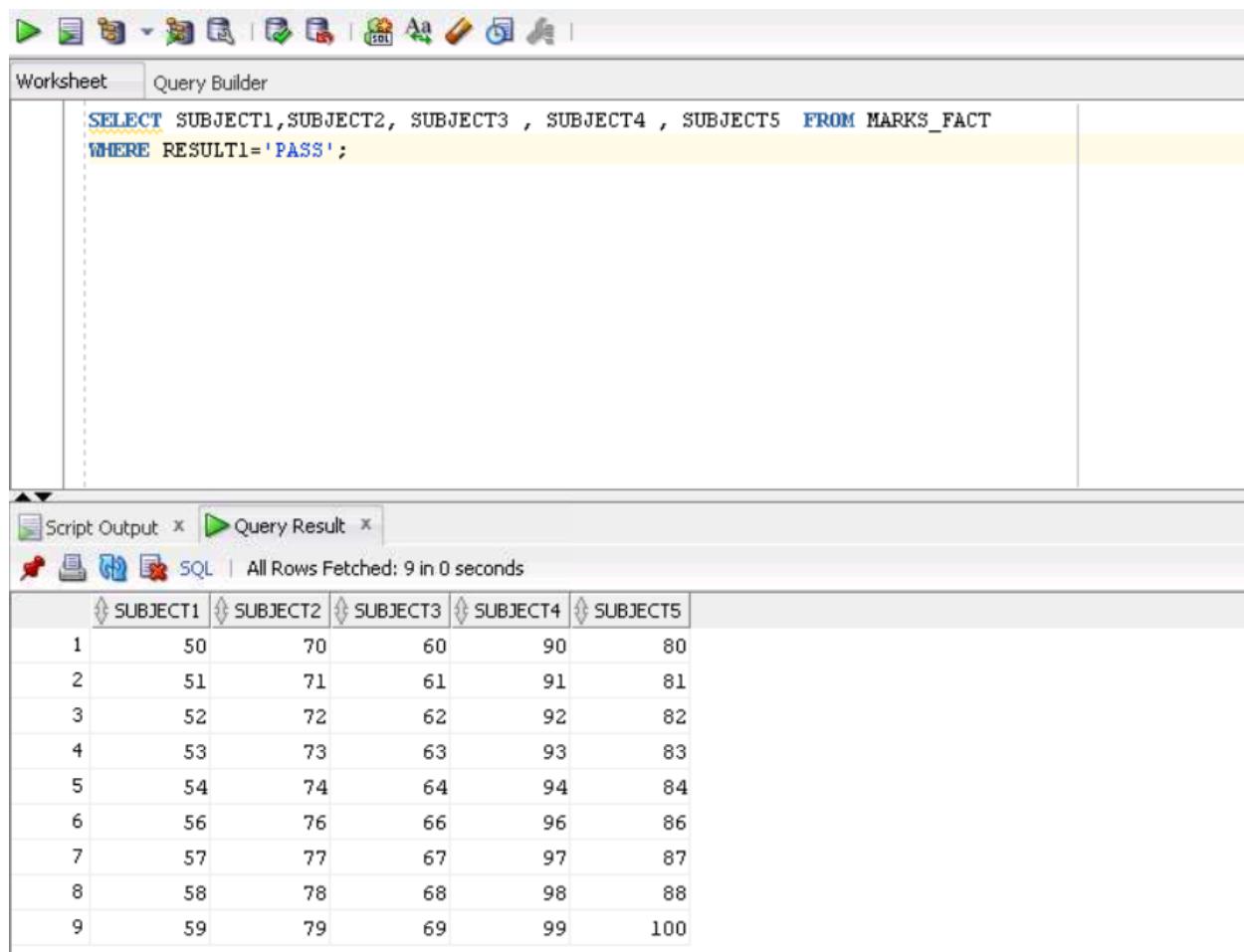
The screenshot shows a database management interface with two main panes. The top pane, titled 'Worksheet', contains a SQL query:

```
SELECT RESULT1 FROM MARKS_FACT
WHERE SUBJECT4<50;
```

The bottom pane, titled 'Query Result', displays the results of the query:

| RESULT1 |
|---------|
| 1 FAIL |

Below the table, a status message reads: 'All Rows Fetched: 1 in 0 seconds'.



The screenshot shows the Oracle SQL Developer interface. The top window is a 'Worksheet' tab with the title 'Query Builder'. The query entered is:

```
SELECT SUBJECT1, SUBJECT2, SUBJECT3, SUBJECT4, SUBJECT5 FROM MARKS_FACT
WHERE RESULT1='PASS';
```

Below the worksheet is a 'Query Result' tab. The tab bar also includes 'Script Output' and 'SQL'. The SQL tab is selected, showing the message 'All Rows Fetched: 9 in 0 seconds'. The results are displayed in a table:

| | SUBJECT1 | SUBJECT2 | SUBJECT3 | SUBJECT4 | SUBJECT5 |
|---|----------|----------|----------|----------|----------|
| 1 | 50 | 70 | 60 | 90 | 80 |
| 2 | 51 | 71 | 61 | 91 | 81 |
| 3 | 52 | 72 | 62 | 92 | 82 |
| 4 | 53 | 73 | 63 | 93 | 83 |
| 5 | 54 | 74 | 64 | 94 | 84 |
| 6 | 56 | 76 | 66 | 96 | 86 |
| 7 | 57 | 77 | 67 | 97 | 87 |
| 8 | 58 | 78 | 68 | 98 | 88 |
| 9 | 59 | 79 | 69 | 99 | 100 |

2.10.4. SUBJECT_AVERAGE_AGGREGATE

Start Page ORCL

forksheet Query Builder

```
SELECT AVG(SUBJECT1),AVG(SUBJECT2), AVG(SUBJECT3) , AVG(SUBJECT4) , AVG(SUBJECT5),DEPT_ID  FROM MARKS_FACT
GROUP BY DEPT_ID
ORDER BY DEPT_ID;
```

Script Output x Query Result x

SQL | All Rows Fetched: 4 in 0.015 seconds

| | AVG(SUBJECT1) | AVG(SUBJECT2) | AVG(SUBJECT3) | AVG(SUBJECT4) | AVG(SUBJECT5) | DEPT_ID |
|---|---------------|---------------|---------------|---------------|---------------|---------|
| 1 | 51 | 71 | 61 | 91 | 81 | D1 |
| 2 | 54 | 74 | 64 | 74 | 84 | D2 |
| 3 | 56.5 | 76.5 | 66.5 | 96.5 | 86.5 | D3 |
| 4 | 58.5 | 78.5 | 68.5 | 98.5 | 94 | D4 |

2.10.5. SCHEDULING

