Midterm P1

Due Jul 2 at 3pm   **Points** 100   **Questions** 50
Available Jul 2 at 12:01pm - Jul 2 at 3pm about 3 hours   **Time Limit** 60 Minutes

Attempt History

	Attempt	Time	Score
LATEST	**Attempt 1**	60 minutes	67.5 out of 100

⊘ Correct answers are hidden.

Score for this quiz: **67.5** out of 100
Submitted Jul 2 at 1:11pm
This attempt took 60 minutes.

Question 1   2 / 2 pts

What CDC technique records the current snapshot and compares it to the previous snapshot to determine all the changes that occurred in the data source since the last CDC run?

    row difference comparisons

Question 2   2 / 2 pts

What data integration service's purpose is the command and control center for the data integration jobs:

○ Access & Delivery

○ Data profiling

○ Data ingestion

○ Data transformation

○ Data quality

◉ Process management

○ Operations management

○ Data transport

Question 3   2 / 2 pts

What data integration service is a process to examine the structure and content of data sources:

○ Access & Delivery

◉ Data profiling

○ Data ingestion

○ Data transformation

○ Data quality

○ Process management

○ Operations management

○ Data transport

Incorrect

Question 4   0 / 2 pts

Why do IT groups choose to manually code data integration processes:

☑ Tools are too expensive

☑ Expertise is scarce

☑ Enables impact analysis

☑ Ensures documentation of processes

Question 5   2 / 2 pts

Which among the below belong to data transformation services?

◉ data conversion services

○ Source system analysis

○ Source to target mapping

○ Change Data Capture (CDC)

Incorrect

Question 6   0 / 2 pts

Data profiling \is also called?

Source SysteAnalysis

Partial

Question 7   1.5 / 2 pts

Match the type of source systems analysis with its result

column analysis	count of distinct values & ⌄
primary key analysis	identify candidate keys ⌄
relationship analsysis	identify functional depen ⌄
cross-table analysis	detect common column d ⌄

Question 8   2 / 2 pts

Which of the following is not a part of data ingestion services

○   **Custom Data Loaders**

○   Change data Capture (CDC)

○   Slowly Changing Dimensions (SCD)

Reference look-ups
○

Question 9   2 / 2 pts

Which of the following is not a part of audit service?

○   Error handling

○   Data integration jobs

○   Data quality metrics

○   Table and row update

Question 10   2 / 2 pts

What data quality service's purpose is to involves making sure there are standard measures on fact tables when there are multiple variations of that measure:

○   Data consistency

○ Data conformance

○ Data cleansing

○ Data profiling

○ Data governance

Incorrect

Question 11   **0 / 2 pts**

The purpose of data [a] is to "package" the data to make it easier for business users to understand and use.

Data Model

Question 12   **2 / 2 pts**

Match the type of testing with its description

Unit testing	Test each data integratior ⌄
Integration testing	Test a workflow with its ir ⌄
User acceptance testing	Business people validate ⌄
System testing and performance testing	Test the entire data integ ⌄

Question 13

2 / 2 pts

When designing an analytical data architecture what is the first data store to be modeled?

- ◉ EDW

- ○ Staging

- ○ ODS

- ○ BI schemas

- ○ Data Lake

- ○ Distribution schema

Question 14

2 / 2 pts

Which of the following are not a data integration business. data & analytical requirement?

- ◉ Extraction strategy for each source system

- ○ Historical & archiving requirements

- ○ Data latency

- ○ Tracking changes to data

- ○ Regulatory compliance

- ○ Data hub for exchanging data between applications

Question 15　　　　　　　　　　　　　　　2 / 2 pts

Which of the following DI workflows are data preparation processes?

☑ ODS to Integration Schema

☑ SOR to ODS

☑ Staging to MDM

☑ Staging to Integration Schema

☑ MDM to Integration Schema

☐ MDM to Distribution Schema

☐ BI Schema to BI Tool-Specific Data

☐ Distribution Schema to BI Schema

☐ Distribution Schema to Applications

☐ Integration Schema to Distribution Schema

Question 16　　　　　　　　　　　　　　　2 / 2 pts

In which of the following processes would you use product specific components:

◉ Design stage-related physical data integration process model

○ Create stage-related conceptual data integration process model

○ Create stage-related logical data integration process model

○ Design stage-related source-to-target mappings

○ Design overall data integration workflow

Question 17
2 / 2 pts

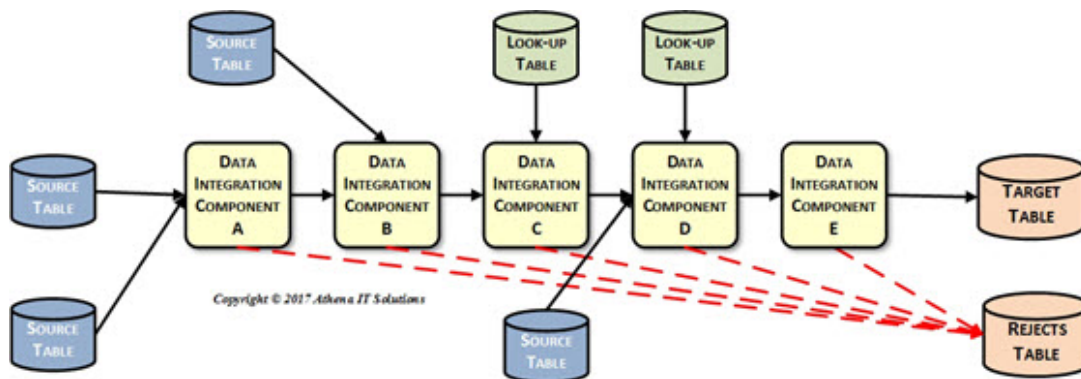Data [a] is the process of getting data from source systems and storing it in a DW

preparation

Question 18
0 / 2 pts

The following model depicts a [a] data integration model:

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physical model

Question 19
2 / 2 pts

Business people & SMEs validating the data by using BI applications is part of what type of testing.

◉ User acceptance testing

○ Integration testing

○ Unit testing

○ System & performance testing

○ Regression testing

○ Midterm exam

Question 20   2 / 2 pts

Which one of the following is not a data sourcing system requirement?

◉ Privacy and security requirements

○ Source system availability

○ Staging area strategy

○ Relational database design standards

Question 21   2 / 2 pts

What type of attributes does a primary (vs profile or mini-) dimension contain?

○ Slowly changing dimensions

○ Rapidly changing dimensions

○ Degenerate dimensions

○ Junk dimensions

Question 22   2 / 2 pts

what are approaches to handle multi-valued dimensions

☑ Pick one value, ignore others

☑ Extend the attributes

☑ Create a bridge table

☐ Create a mini-dimension

☐ Use a value-band

☐ Create a ragged hierarchy

Incorrect

Question 23   0 / 2 pts

What type of dimension is used to handle a multitude of low-cardinality transactions, system codes, flags, identifiers, and text attributes.

Junk Dimensions

Question 24

2 / 2 pts

This is an example of a financial Chart of Accounts (COA). Based solely on what is depicted in this example what type of hierarchy is it?

> Unbalanced

Question 25

2 / 2 pts

What type of attributes does a profile dimension contain?

○ Slowly changing dimensions

◉ Rapidly changing dimensions

○ Degenerate dimensions

○ Junk dimensions

Question 26

2 / 2 pts

Which of the following types of hierarchies belong to dimensional model?

○ Roll up, drill down, drill across

◉ Balanced, ragged, unbalanced

○ Star, snowflake, multidimensional

○ All of the above

Question 27   2 / 2 pts

In what type of specialty dimension is a weighing factor used for analysis?

◉ Bridge tables supporting multi-value relationships

○ Bridge tables replacing recursive relationships

○ Bridge tables connecting primary & profile dimensions

○ Value-Band Dimensions

Incorrect

Question 28   0 / 2 pts

In the example, what special types of dimension are the DimPromotion & DimSalesReason tables?

Casual Dimension

Question 29   2 / 2 pts

What type of dimension references another dimension?

◉ Outrigger tables

○ Bridge table

○ Recursive pointers

○ Casual dimension

Incorrect

Question 30   0 / 2 pts

What type of specialty dimension table, in this example Account-to-CustomerTable, to support many-to-many relationships in dimensional modeling?

[   ]

Question 31   2 / 2 pts

What are valid approached to handling the missing value in a ragged hierarchy

☑ default value

☑ use value level above the gap

☐ create a bridge table

☐ use recursion

☐ create a mini-dimension

Question 32   2 / 2 pts

Match the slowly changing dimension (SCD) type with one of its key characteristics

Overwrites existing rows to maintain current values	SCD 1
Keeps original values	SCD 0
Uses both a history table and a current table (or view)	SCD 7
Combines SCD types 1, 2 and 3	SCD 6
Splits the dimension into rapidly and slowly changing dimensions	SCD 4

Question 33   2 / 2 pts

What is the date pair used to support SCD Type 3?

- ◉ Current & Historical Dates
- ○ Effective & Ineffective Dates
- ○ Created & Modified Dates
- ○ Start & End Date

Incorrect

Question 34   0 / 2 pts

This is an example of a financial Chart of Accounts (COA). Based solely on what is depicted in this example what type of hierarchy is it?

Unbalanced

Question 35   2 / 2 pts

What term is used because key values assigned to a SCD dimension continue to be used regardless of any changes in the values in the systems?

◉ Durable

○ Supernatural

○ Degenerate

○ Natural Key

Question 36   2 / 2 pts

If time is not considered relevent to expected business aalysis, then what two columns should be in the fact table containing these dates:

☑ Foreign key linked to calendar dimension

☑ Column with a datetime data type

☐ Foreign key linked to a junk dimension

☐ Foreign key linked to time dimension

☐ Column with null value

Question 37　　　　　　　　　2 / 2 pts

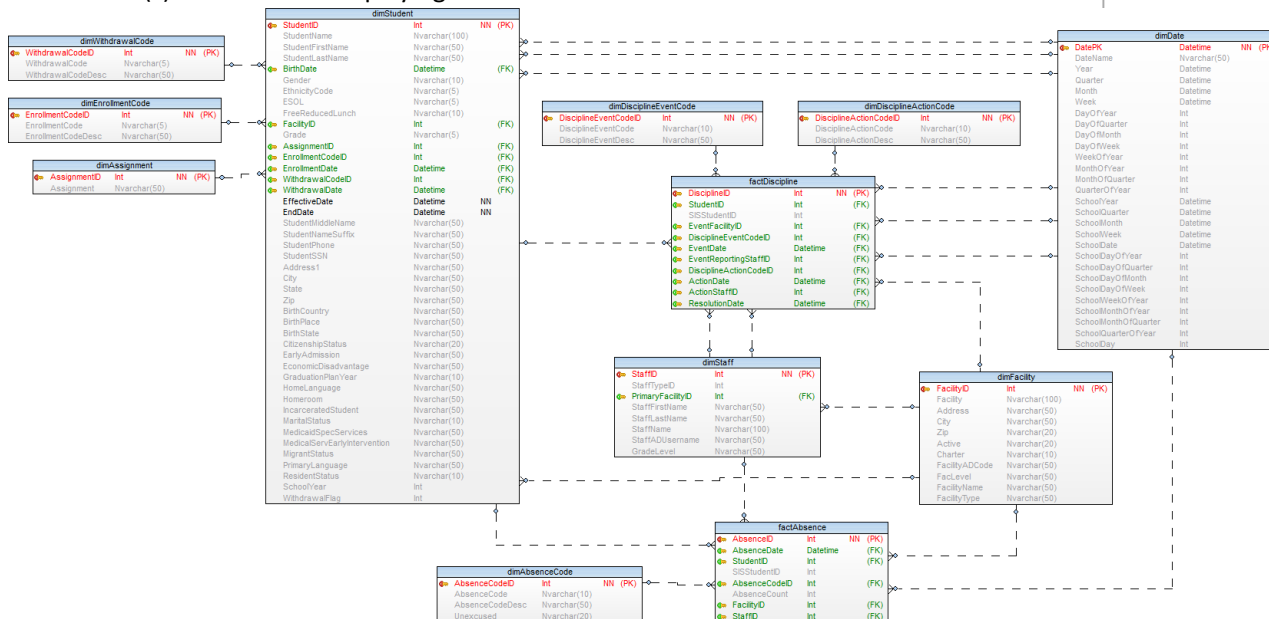What table has a recursive relationship?

DimEmployee

Question 38   2 / 2 pts
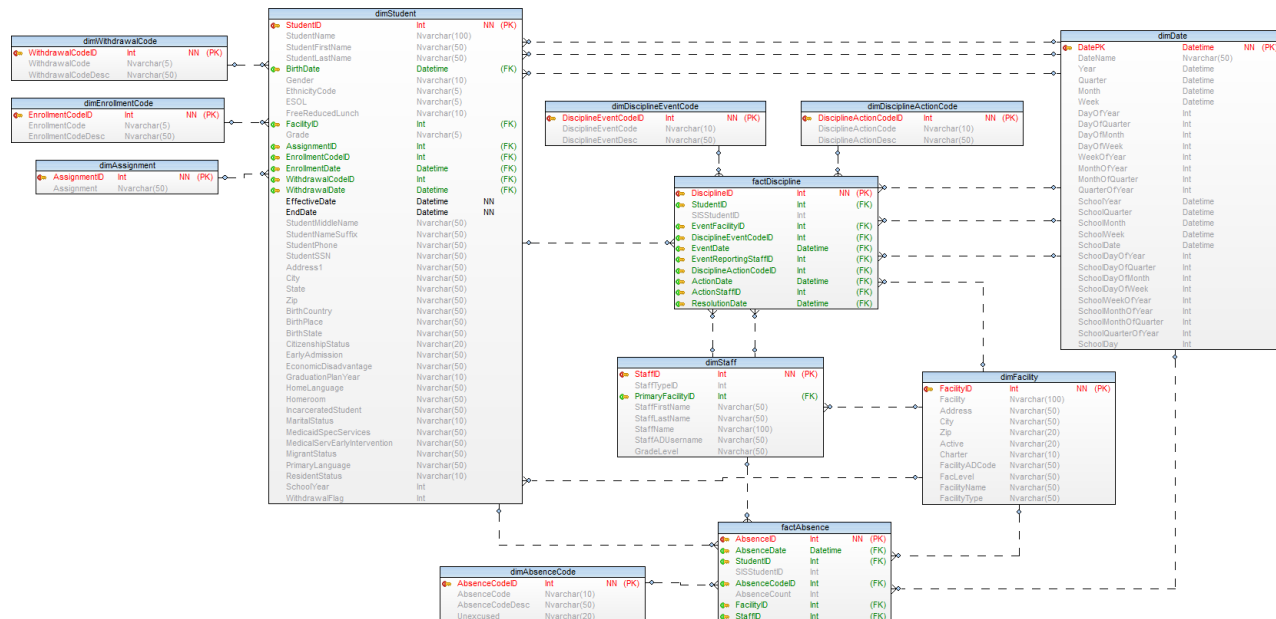
What table(s) would be a role-playing dimension?

DimDate

Incorrect

Question 39   0 / 2 pts

What type of schema is depicted in schema?

Multifact Star schema

Question 40　　　　　　　　　　　　　　　　　　　　2 / 2 pts

What is not a required characteristic of a dimensional attribute?

● Not Null

○ Descriptive

○ Complete

○ Unique

○ Valid

Question 41　　　　　　　　　　　　　　　　　　　　0 / 2 pts

There are instances when a fact table references a dimension multiple times as a foreign key. For example, multiple address-related columns identifying different address such as shipping and billing locations. What term describes a physical dimension being used in different business contexts?

Role Playing Dimensions

Incorrect

Question 42

0 / 2 pts

Are surrogate Keys required for all tables in a DW?

◉ True

○ False

Incorrect

Question 43

0 / 2 pts

What type of schema is depicted in schema?

MultiDimensional Schema

Incorrect

Question 44

0 / 2 pts

What statement about a dimensional hierarchy is false:

○ Always Constant

○ Used to aggregate data

◉ An attribute

○ Always Unique

○ Always Descriptive

Incorrect

Question 45

0 / 2 pts

Operational systems track transactions and business events by using business process documents such as a purchase order, invoice, travel reservation or concert ticket. All of these process documents have reference identifiers such as order, invoice and reservation numbers that are unique and used as primary keys to entities in their supporting operational schemas. This type of dimension is referred to as?

> Degenerative Dimensions

Question 46

2 / 2 pts

which normal form do you **Eliminate repeating groups**

> 1NF

Incorrect

Question 47

0 / 2 pts

which normal form do you **Eliminate redundant data stored in different entities**

> 3NF

Incorrect

Question 48

0 / 2 pts

whcih normal form do you **Eliminate non-key interdependencies**

> 2NF

Question 49

2 / 2 pts

Dependent entities are child records that need a parent record to exist and are considered strong links?

○ True

◉ False

Question 50

2 / 2 pts

Which of the following is not the purpose of data modeling?

◉ To guide how the data is collected, integrated, enhanced, stored, and delivered to business people who use it to do their jobs

○ To build business intelligence (BI) and data warehousing (DW) applications that provides significant business value.

○ To transform data into an enterprise information asset that is consistent, comprehensive, and current.

○ To transform data from operational or source systems into a data warehouse, data marts, or online analytical processing (OLAP) cubes for analysis.

Quiz Score: **67.5** out of 100