

Midterm P2

Due Jul 2 at 4pm

Points 100

Questions 50

Available Jul 2 at 12:30pm - Jul 2 at 4pm about 4 hours

Time Limit 60 Minutes

Attempt History

	Attempt	Time	Score
LATEST	<u>Attempt 1</u>	60 minutes	76 out of 100

! Correct answers are hidden.

Score for this quiz: **76** out of 100
Submitted Jul 2 at 2:35pm
This attempt took 60 minutes.

Question 1

2 / 2 pts

What type of visualization is this?

Contribution Analysis

Category	Item	Value
Helmets	Sport-100 Helmet, Red	\$78,050
Helmets	Sport-100 Helmet, Blue	\$74,375
Helmets	Sport-100 Helmet, Black	\$72,975
Tires and Tubes	HL Mountain Tire	\$48,860
Tires and Tubes	HL Road Tire	\$28,314
Tires and Tubes	LL Road Tire	\$21,924
Tires and Tubes	LL Mountain Tire	\$21,550
Tires and Tubes	Touring Tire	\$27,115
Tires and Tubes	Mountain Tire Tube	\$15,475
Tires and Tubes	Touring Tire Tube	\$7,440
Tires and Tubes	ML Mountain Tire	\$34,830
Tires and Tubes	ML Road Tire	\$23,150
Tires and Tubes	Road Tire Tube	\$9,504
Tires and Tubes	Patch Kit/8 Patches	\$6,382
Bottles and Cages	Water Bottle - 30 oz.	\$21,220
Bottles and Cages	Mountain Bottle Cage	\$20,250
Bottles and Cages	Road Bottle Cage	\$15,408
Fenders	Fender Set - Mountain	\$46,662
Hydration Packs	Hydration Pack - 70 oz.	\$40,315
Bike Stands	All-Purpose Bike Stand	\$39,591
Bike Racks	Hitch Rack - 4-Bike	\$39,360
Cleaners	Bike Wash - Dissolver	\$7,264

☒ Treemap

☐ Box plot

☐ Gauges

☐ Distribution

☐ Bar Chart

☐ Histogram

Question 2

2 / 2 pts

What BI persona would typically have the skills to perform predictive analytics?

☐ Power users

☒ Data scientist

☐ Analysts

☐ Casual consumers

Question 3

2 / 2 pts

You can make the BI presentation model more relevant by: (2 answers)

☐ Using the sans serif font

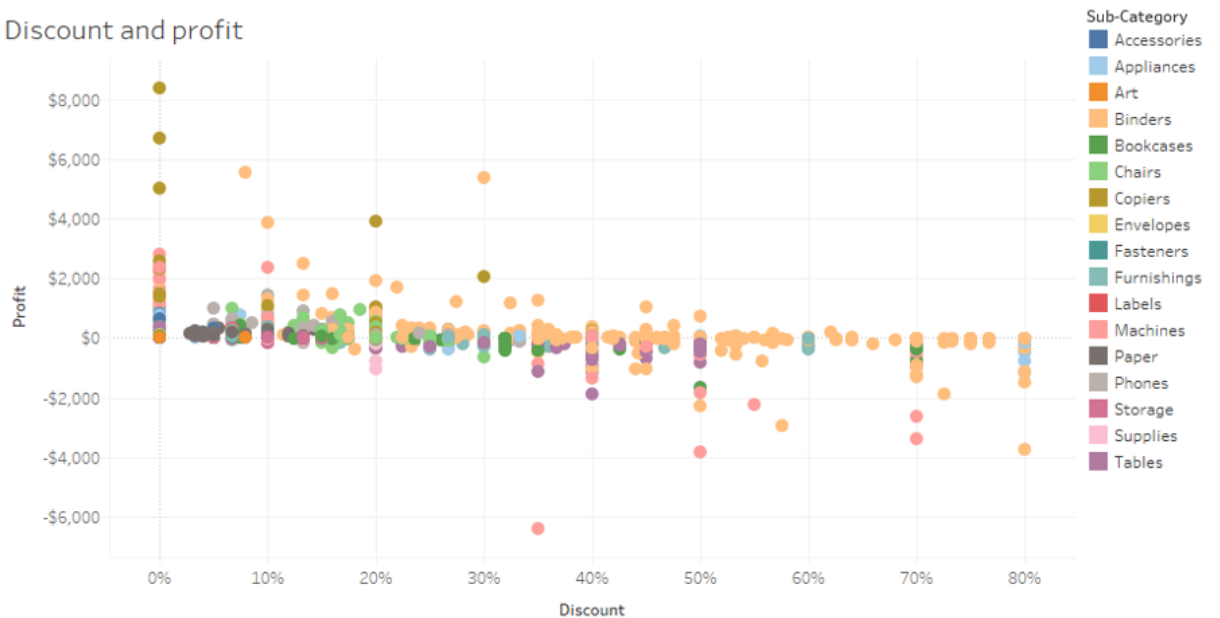
- ☒ Eliminating clutter
- ☐ Making sure that arrows are always red
- ☒ Using business terminology
- ☐ Using lots of color

Question 4

2 / 2 pts

Why would this be a poorly designed visualization?

Discount and profit



- ☒ Too many colors
- ☐ Chart time incorrect for comparison
- ☐ Too many labels
- ☐ x & y axis need to be switched

Incorrect

Question 5**0 / 2 pts**

Why should you consider avoiding red & green as your default colors in a visualization?

- ☐ Blue & orange are prettier colors
- ☐ 8% or men are color blind
- ☒ Red generally means negative & green implies positive numbers

Incorrect

Question 6**0 / 2 pts**

what data visualization would NOT be used to illustrate composition

- ☐ tree map
- ☐ stacked area chart
- ☐ bar chart
- ☐ pie chart
- ☒ waterfall chart

Question 7**2 / 2 pts**

What is the data visualization that is considered the best practice for correlation analysis?

- ☒ Scatter plot

☐ Heat map☐ Box plot☐ Line graph☐ Pie Chart**Question 8****2 / 2 pts**

Please match the descriptions of BI Visual Design Methods

Technique that is used extensively in Web design and is a much more detailed representation of the visual design than a sketch, however the technique deliberately does not attempt to provide detailed visual design.

Wireframe



Technique that often uses a whiteboard or paper to draw quick, easy and inexpensive BI application layouts

Sketch



Focus on the business user interaction and workflow of the analytical processes within the BI application.

Storyboarding



This technique creates a static visualization of what the BI application will look like to the business person, including the colors, icons,

Mock-up



buttons, text and charts that will be used.

Question 9

2 / 2 pts

Match the best practice data visualizations for the following types of analysis:

Comparative

Bar charts



Time-series

Line charts



Contribution

Heat map



Correlation

Scatter plot



Distribution

Box plot



Question 10

2 / 2 pts

What is the final type of BI application testing?

☐ Developer integration testing

☒ Systems & performance testing

☐ User acceptance testing

- ☐ User unit testing

Question 11

2 / 2 pts

Data quality problems originate in the data warehouse?

- ☐ True
- ☒ False

Question 12

2 / 2 pts

Which one of the following is not true?



- ☐ Provide little actionable information
- ☒ Are very effective at displaying KPIs (Key Performance Indicators)
- ☐ Require a disproportionate amount of room for the information presented
- ☐ Are glitzy but unhelpful
- ☐ Hard to read and understand

Question 13

2 / 2 pts

What BI persona includes people may either be great BI advocates or sabotage Bi efforts by creating data shadow systems?

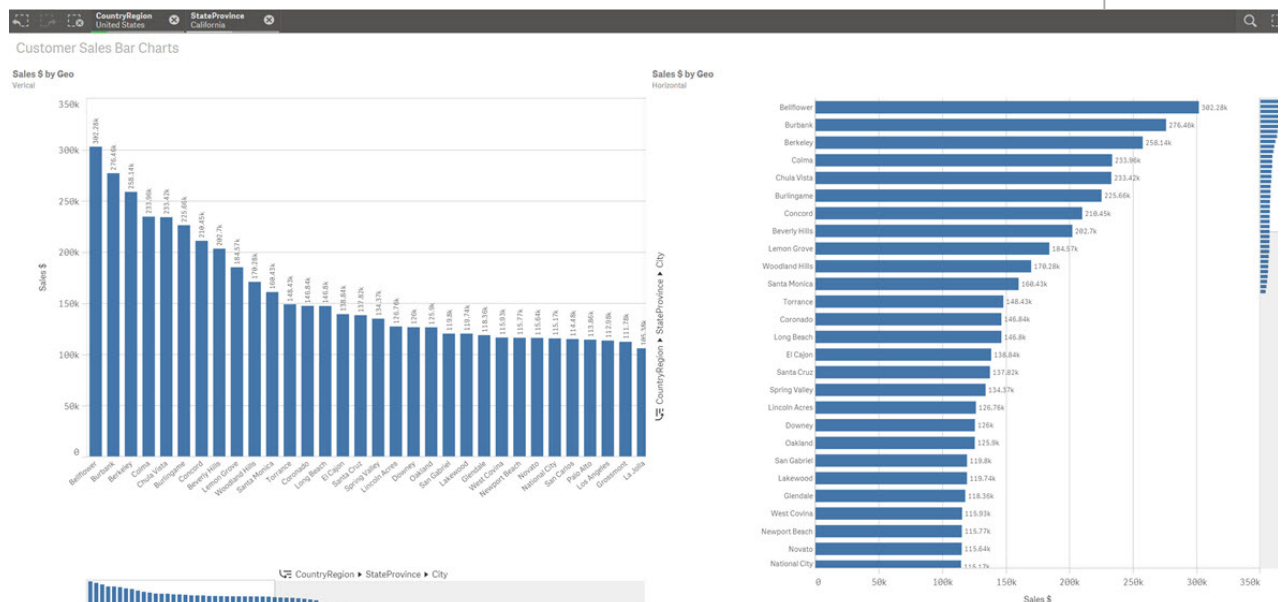
- ☐ Analysts
- ☒ Power users
- ☐ Casual users
- ☐ Data scientist

Incorrect

Question 14

0 / 2 pts

It is a best practice to orient bar chart horizontally?



- ☐ Disagree
- ☒ Agree

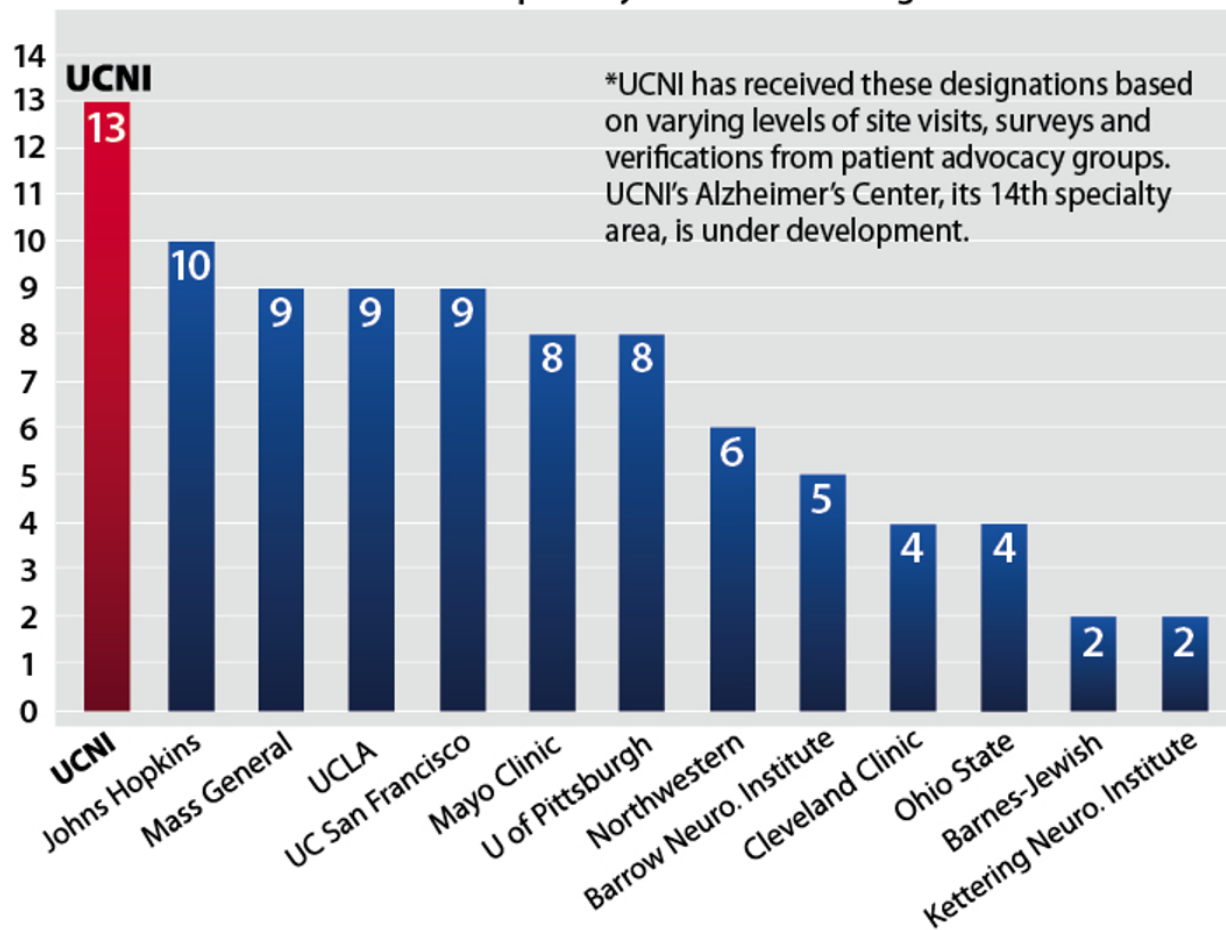
Question 15**2 / 2 pts**

which of the following data visualizations would be least likely to be used for comparison?

☐ circular area chart☐ bar chart vertical☐ variable width chart☒ histogram☐ line chart☐ bar chart horizontal**Incorrect****Question 16****0 / 2 pts**

What would you NOT do if you were trying to improve this data visualization?

Number of Verifications in 14 Specialty Areas of Neurological Care



- ☐ Remove value labels
- ☐ Switch to horizontal bars
- ☐ Fix gridlines on top of paragraph
- ☒ Remove Axis labels
- ☐ Use horizontal text for hospitals

Question 17

2 / 2 pts

People are very good at quickly and accurately estimating:

- ☐ A spreadsheet with thousands of numbers
- ☐ Differentiating dozens of colors at once
- ☐ Arc of a donut chart
- ☐ Angles of a pie chart
- ☒ Length and Height of Bars on bar chart

Question 18**2 / 2 pts**

When designing a BI application, what is more important?

- ☐ Eye-catching graphics
- ☐ Cool fonts
- ☒ Consistent template
- ☐ Elegant design

Question 19**2 / 2 pts**

What BI persona includes people in an enterprise who regularly use BI applications to gather and explore data they need to perform their jobs:

- ☐ HR managers
- ☐ Power brokers
- ☐ Casual consumers
- ☒ Analyst

☐ Python developers

Question 20**2 / 2 pts**

The convention for the trending charts is for time to be displayed _____-axis while the measure is displayed on the _____-axis

☐ y,x

☒ x,y

Question 21**2 / 2 pts**

What project deliverable does the project team need to develop in order to design and document the BI applications that will be built?

☐ Data profiling

☒ BI content specification

☐ Dimensional data model

☐ Source-to-Target mapping

Question 22**2 / 2 pts**

What is the most significant roadblock to expanding the use of self-service BI in an enterprise?

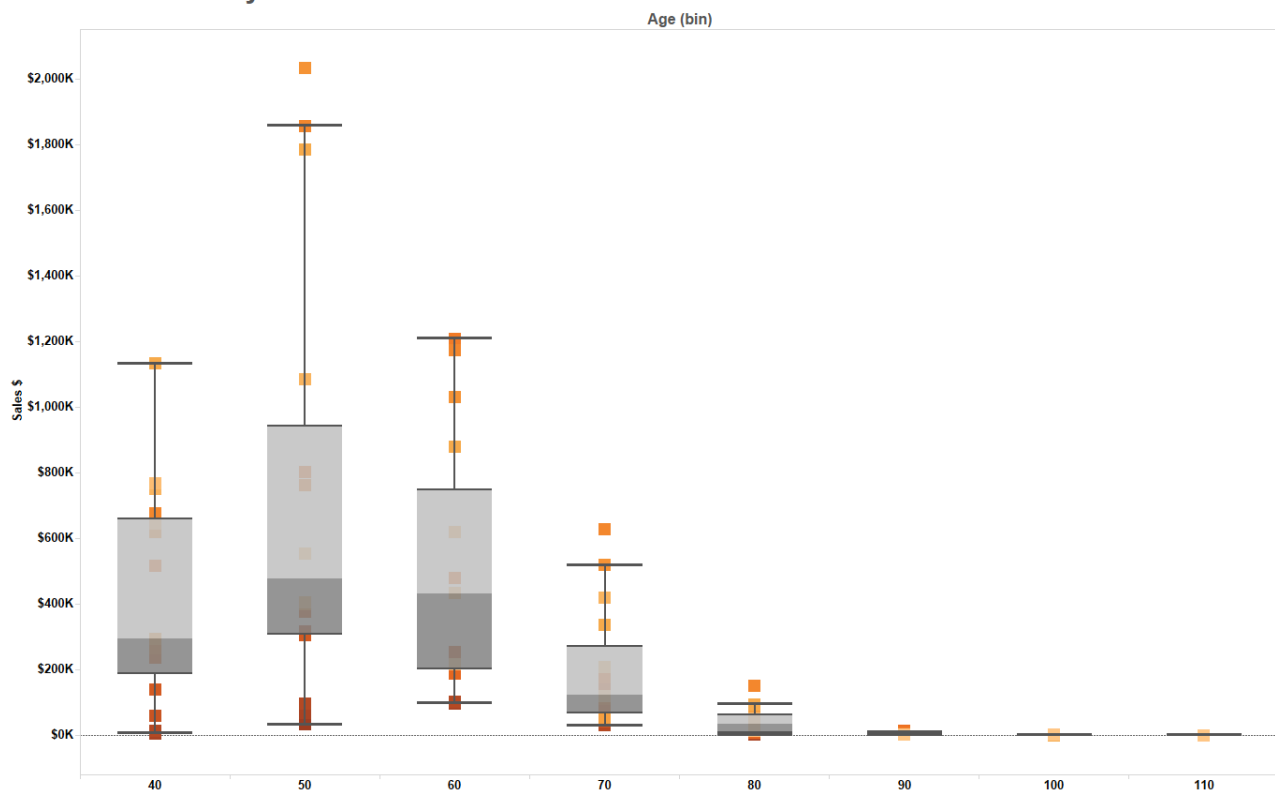
- ☐ Big data
- ☐ Relational databases
- ☒ Data inconsistency
- ☐ BI tool functionality
- ☐ IT backlog

Question 23

2 / 2 pts

What type of data visualization is this?

Distribution Analysis



- ☐ tree map
- ☒ box plot
- ☐ scatter plot

☐ heat map

Incorrect

Question 24

0 / 2 pts

What would be the preferred data visualization to compare more than two variables

☐ circular area chart

☐ bar chart

☒ tree map

☐ histogram

Question 25

2 / 2 pts

The most important data on the dashboard should be placed what location on a dashboard or report?

☐ In the absolute center of the screen

☐ Anywhere as long as the typeface is bold

☐ The right-hand quadrant

☒ In the upper left-hand corner

Incorrect

Question 26

0 / 2 pts

The 5 C's of the Analytical Data Architecture are consistent, clean, comprehensive, current and what?

conformed

Incorrect

Question 27

0 / 2 pts

What was the data architecture that Bill Inmon advocated?

Hub-And-Spoke

Question 28

2 / 2 pts

What type of schema does a n OLAP, in-memory, columnar or non-relational BI data store use

- ☐ Denormalized
- ☐ Hybrid Dimesional Normalized
- ☒ Logically dimensional
- ☐ 3NF
- ☐ EER

Question 29

2 / 2 pts

Enterprises with both an EDW and ODS could get their reports from can ODS alone

☒ True

☐ False

Incorrect

Question 30

0 / 2 pts

What sort of data model is used for EDW: Distribution schema

☒ Hybrid dimensional-normalized

☐ BCNF

☐ 3NF

☐ Denormalized

☐ None

☐ Dimensional

Question 31

2 / 2 pts

What layers of data enable Business Intelligence? (select 3 answers)

☐ SOD

☒ SOA

☒ SOI

☐ OLAP☐ ROI☐ SOB☒ SOR**Question 32****2 / 2 pts**

Key Building Block of Inmon's CIF is

☐ All of the above☒ Enterprise Data Warehouse (EDW)☐ Data Mart☐ Data Quality**Question 33****2 / 2 pts**

What kind of data is fed from the operational environment into the data warehouse on an ongoing basis?

☒ Current detail data☐ Lightly summarized data☐ Highly summarized data☐ Older detail data

Incorrect

Question 34**0 / 2 pts**

The process of removing the deficiencies and loopholes in the data is called:

- ☐ Aggregation of data
- ☐ None of the answers
- ☐ Loading of data
- ☒ Cleaning up of data
- ☐ Extracting of data

Incorrect

Question 35**0 / 2 pts**

Which of the following is true:

- ☒ A data mart becomes a data warehouse when it reaches a critical size
- ☐ Once created, the data marts will keep on being updated from the data warehouse at periodic times
- ☐ Once created, the data marts will directly receive their new data from the operational databases
- ☐ Data lakes are the new data marts
- ☐ The data marts are different groups of tables in the data warehouse

Question 36**2 / 2 pts**

What is not a DW attribute

- ☐ Integrated
- ☐ Time Variant
- ☐ Subject Oriented
- ☒ Volatile

Question 37**2 / 2 pts**

Characteristics of ODS

- ☒ All of the above
- ☐ Offers pre-built reporting or integration solution for enterprise applications
- ☐ Enables consolidated reporting
- ☐ Integrates data from multiple source systems

Question 38**2 / 2 pts**

Business Intelligence and data warehousing is used for

- ☐ Production reporting
- ☐ Predictive analytics

☐ Forecasting☐ None of the above☒ All of the above☐ Data mining**Question 39****2 / 2 pts**

What is not the attributes of DW

☐ Time Variant☐ Subject Oriented☐ Integrated☒ Volatile**Question 40****2 / 2 pts**

What was the data architecture that Ralph Kimball advocated?

Incorrect**Question 41****0 / 2 pts**

What sort of data model is used for EDW: Distribution schema

☐ None

☐ 3NF

☒ Hybrid dimensional-normalized

☐ Dimensional

Question 42

2 / 2 pts

Match the types of schema that should be used

ERP

3rd Normal Form (3NF) ▼

EDW (Integration Schema)

Hybrid Dimensional-Nori ▼

Data Mart

Dimensional ▼

**In-memory Columnar
Database, Hive, HCatalog or
OLAP**

Logically Dimensional ▼

EDW Distribution Schema

Hybrid Dimensional-Nori ▼

**MDM (Source System
Applications)**

3rd Normal Form (3NF) ▼

**Operational Data Store
(ODS)**

3rd Normal Form (3NF) ▼

Question 43**2 / 2 pts**

A MDM application can use what schema(s)

- ☐ Dimensional Model
- ☒ Hybrid Dimensional-Normalized
- ☒ 3NF
- ☐ Columnar
- ☐ Denormalized model

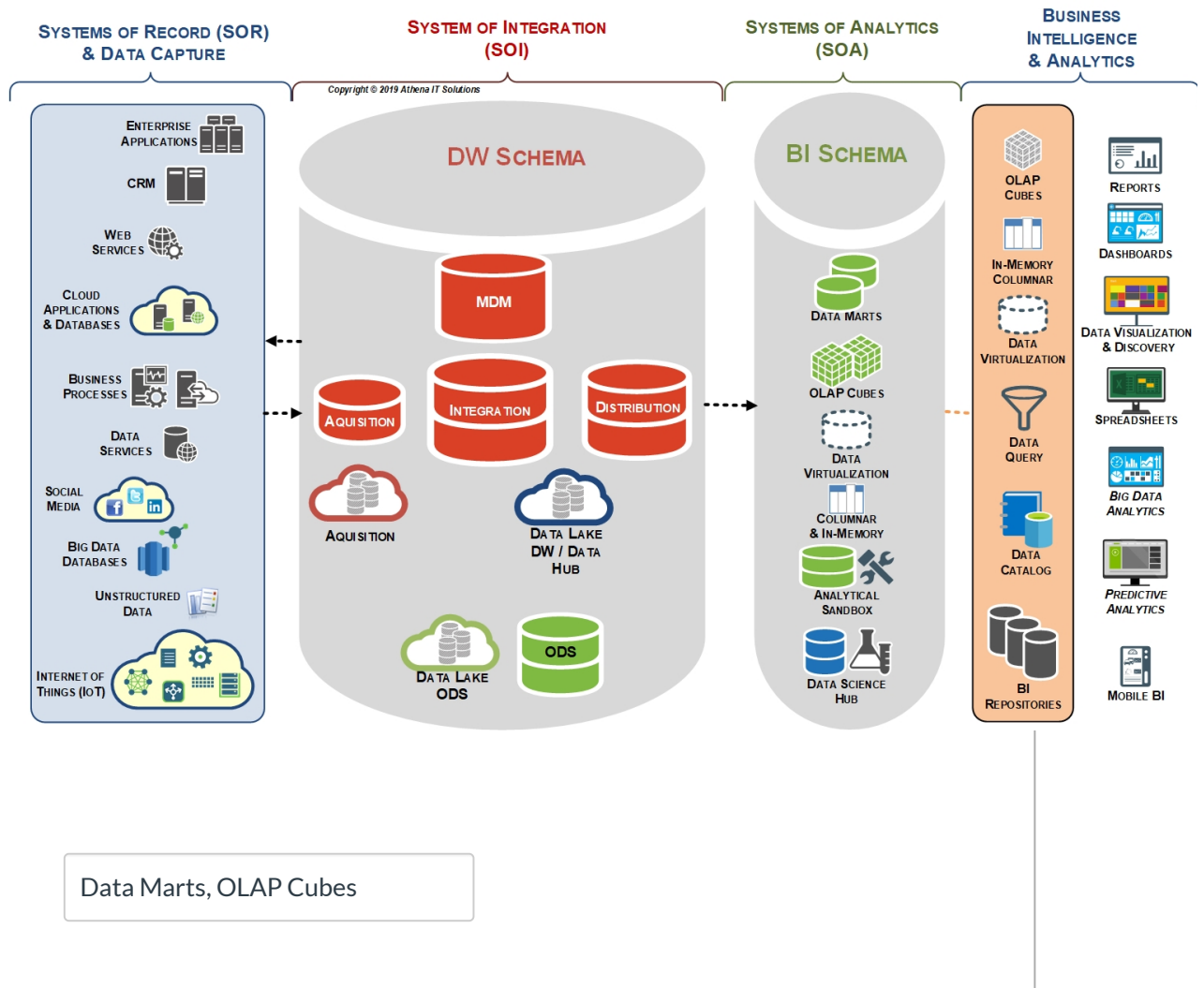
Question 44**2 / 2 pts**

A logical data warehouse can use a polyglot database

- ☒ True
- ☐ False

Incorrect**Question 45****0 / 2 pts**

Which component(s) are in the Systems of Analytics (SOA)



Question 46

2 / 2 pts

What functions does the SOI perform?

- ☒ All of the above
- ☐ Serve as a data hub for the SOA— distribute
- ☐ Perform data preparation— integrate
- ☐ Gather data from the SORs— stage

Question 47**2 / 2 pts**

The 5 C's of data are:

- ☒ Consistent, clean, comprehensive, conformed & current
- ☐ Consistent, clean, controlled, compared & current
- ☐ Consistent, clean, complete, confirmed & confounded
- ☐ Consistent, clean, concise, current & compounded

Question 48**2 / 2 pts**

The Enterprise Data Warehouse is split into what schemas?(select 2 answers)

- ☐ Data architecture
- ☒ Data distribution
- ☒ Data integration
- ☐ BI schema
- ☐ Denormalized
- ☐ SOR

Question 49**2 / 2 pts**

The data franchising processes are:



Gather data from the ODS. Stage data in data shadow systems. Perform business transformations and metrics calculations. Perform ETL.



Gather data from the business group's spreadsheets. Restructure or denormalize it. Import into a SQL database. Store data.



Gather and analyze data. Import data into cubes. Perform SQL queries on the data. Filter out the data needed for analytics.



Gather, filter and subset data. Restructure or denormalize data. Perform business transformations and metrics calculations. Aggregate or summarize data. Store data.

Question 50

2 / 2 pts

During the DW versus data mart debate, it was dependant data marts that the data marts advocates were promoting

☐ True

☒ False

Quiz Score: **76** out of 100