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## Module 3 challenge

Graded Assignment • 40 min

 Due Jan 21, 11:59 PM PST

1. Fill in the blank: Data professionals use data \_\_\_\_\_ to control their company's data and make sure data assets are formally managed. 1 / 1 point

- strategy
- aggregation
- governance
- mapping

 Correct

2. In the context of data analytics, what is the primary purpose of metadata? 1 / 1 point

- To define access and security protocols for data storage.
- To provide context and information *about* the data, such as its structure, origin, definition, and characteristics.
- To perform calculations and statistical analyses on the raw data values.
- To store the individual records and observations that make up the dataset itself.

 Correct

3. Which of the following statements accurately describe primary and foreign keys in a relational database? 1 / 1 point
- Select all that apply.

- A table can only have one primary key, but it can have multiple foreign keys.

 Correct

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3. Which of the following statements accurately describe primary and foreign keys in a relational database?  
Select all that apply.

1 / 1 point

A table can only have one primary key, but it can have multiple foreign keys.

Correct

Foreign keys are used to connect one table to another.

Correct

A primary key references a column in which each value is unique.

Correct

A foreign key uniquely identifies a record in the table in which it is located.

4. A data analyst runs the following query. What do they want to retrieve from the database?

1 / 1 point

```
1  SELECT *
2  FROM ArtDisplays
3  WHERE Medium = 'sculpture';
```

- All fields of the art displays that are not sculptures
- All fields of the art displays of sculptures
- All fields of the art displays
- All fields of the mediums in art displays

5. A data analyst at a large multinational corporation prepares for a project about a very broad and global topic. However, they will only have access to internal data. What are some potential limitations that they should be aware of? Select all that apply.

1 / 1 point

- It's impossible to confirm the reliability of the data.
- The data might only offer insight into a partial or incomplete view of the problem.

Correct

- It may be difficult to gather data from multiple departments and locations.

Correct

- The data is probably not owned by the company.

6. A junior data analyst at a convention center is sending an email to all exhibitors that have more than 100 exhibits each year. What spreadsheet tool will enable them to display only the exhibitors that meet that condition?

1 / 1 point

- Sort exhibitors in ascending order
- Sort exhibitors in descending order
- Filter the data to show only exhibitors with fewer than 100 annual exhibits
- Filter the data to show only exhibitors with more than 100 annual exhibits

Correct

7. A data team at a community center uses SQL to explore the data in its employee database. In particular, they want to examine the `name`, `hire_date`, and `salary` field in the `Employee` table. What query should

1 / 1 point

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7. A data team at a community center uses SQL to explore the data in its employee database. In particular, they want to examine the `percent_participation` field in the `EmployeeTraining` table. What query should they use to return only this column of information?

1 / 1 point



```
1 SELECT *
2 FROM EmployeeTraining;
```



```
1 SELECT *
2 FROM EmployeeTraining
3 WHERE field = "percent_participation";
```



```
1 SELECT percent_participation
2 FROM EmployeeTraining;
```



```
1 SELECT EmployeeTraining
2 FROM *;
```

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8. Which SQL statement will return only elementary school students from the Grade column of the Students database table?

1 / 1 point



```
1 SELECT *
2 FROM Grade = 'elementary';
```



```
1 SELECT *
2 WHERE 'elementary';
```



```
1 SELECT *
2 FROM Students
3 WHERE Grade = 'elementary';
```



```
1 SELECT *
2 FROM Grade
3 WHERE 'elementary';
```

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Correct

9. What are the benefits of open data for the public? Select all that apply.

1 / 1 point

- Limited access to local issues and a decrease in economic innovation.
- Increased public participation and improved decision making.

Correct

- Increased government secrecy and less public participation.
- Improved understanding of government spending and opportunities to contribute to public planning.

Correct

10. You are a database administrator for a music streaming service. The company is growing, and the number of users has increased. The limitations of the current database design have become more noticeable. There is a lot more repeated data, such as artist names and album titles, stored across different tables. This redundancy is causing issues with data integrity and making queries slow. In the table for artist names, what is the primary key?

1 / 1 point

Artist Table	
	artist_id
	artist_name
	artist_description

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1 / 1 point

Artist Table	
artist_id	
artist_name	
artist_username	

- artist\_id
- artist\_name
- artist\_username
- artist\_id and artist\_name

Correct