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Grade received 100% To pass 80% or higher

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Data Analysis Software Tools

Latest Submission Grade 100%

1. You work at a large-scale retail organization that has decided to implement a new data strategy. The data your organization collects and stores includes a lot of personally identifiable information about your guests. You staff a committee with members from the following functions: IT professionals, compliance experts, and executive management. What function is missing, but should be included in the evaluation and decision making process?

1 / 1 point

- ☒ Data Science
- ☐ Human Resources
- ☐ Sales
- ☐ Marketing

✔ Correct

Correct! Since data scientists are the members who transform large quantities of data into meaningful insights, members should be involved in the development of a data strategy.

2. You are a manager who is hiring an analyst. He or she will be working in a finance function and will be developing complex data models using incredibly large datasets. When you post the position, what statistical software or programming language would you include under desired skills?

1 / 1 point

- ☐ MATLAB
- ☒ R

✔ Correct

Correct! R is one of the most popular statistical programming languages in the finance and banking industries. There are other correct answers.

- ☒ Python

✔ Correct

Correct! Because Python is becoming increasingly popular among all industries, it might be in the best interest of the organization to include Python in a desired skills category of a job listing. There are other correct answers.

- ☐ Minitab

3. Data visualization is becoming increasingly important in the workplace.

1 / 1 point

- ☒ True
- ☐ False

✔ Correct

Correct! When data is presented visually, we are able to see patterns and identify outliers when the information is viewed in a chart or graph, which means significant insights and special occurrences can easily be detected and addressed appropriately.

4. You are working with a table with a column labeled "State", which houses values regarding US states. The data is manually entered. What potential format are you NOT likely to run into in regards to this data, during a cleaning phase?

1 / 1 point

- ☐ Misspelled state names
- ☐ Abbreviated state names
- ☐ Full state names
- ☒ State names stored as numbers

✔ Correct

Correct! While numbers can often be stored as text, generally text cannot be stored as numbers.

5. You are presenting information to the executive board of your organization. The topic of the presentation is the previous month's revenue compared to costs. What might you NOT include in your presentation?

1 / 1 point

- ☐ Recommendations for how to reduce costs moving forward
- ☐ A drill-down of revenue presented in monthly, weekly, and daily summaries
- ☐ A breakdown of costs by department
- ☒ The software you used to perform the analysis

 **Correct**

Correct! At an executive level, you typically do not need to discuss the tools used to perform the analysis.

6. A team of managers and analysts met to discuss a project that will look into what customer segments have potential to sell additional products to through targeted offers. The team decided that the analysis will lead to a PowerPoint presentation to management that will describe which segments have opportunity to increase sales and an exploration of what factors may help boost performance. The analysts on the team decided to use clustering to develop the segments, and they know exactly where the data is that can help them complete the analysis. The team then concludes its meeting and goes back to work.

1 / 1 point

True or False: The team has determined all key components of a project plan.

- ☐ True
- ☒ False

 **Correct**

Correct! The team failed to set a timeline to complete this project. This means the project may fall off and be forgotten or team members may have different perceptions of how critical this project is.

7. You work for a manufacturing company, which is planning to hire a lot of engineers in entry-level positions. The company sends you to a university career fair to find graduating seniors who are considered qualified candidates for these openings. What statistical programming language might you ask interested candidates about, since they most likely have academic knowledge of it?

1 / 1 point

- ☐ R
- ☐ Python
- ☐ Excel
- ☒ MATLAB

 **Correct**

Correct! MATLAB is frequently taught in university-level engineering programs, so it is likely that a graduating senior will have some knowledge of it.

8. True or False: An analyst, or a team of analysts, usually only works on one project at a time; therefore, he or she can always guarantee they will be fully dedicated to a single project.

1 / 1 point

- ☐ True
- ☒ False

 **Correct**

Correct! Analysts are usually working on multiple projects at a time, which is why setting a timeline is so important.

9. You requested a project to be completed by a junior analyst. The analyst completes the project and during the presentation, the analyst mentions that they used all of the data points in the data set. Why could this lead to a masking of an issue?

1 / 1 point

- ☐ Some of the data points might not be good enough to use
- ☒ Aggregated information could paint a better picture than what is actually happening

 **Correct**

Correct! Going hand in hand with outliers, aggregations can hide issues. There are other correct answers.

- ☒ There could be outliers, contributing to a skewed data set

 **Correct**

Correct! Outliers should be imputed or excluded in order to normalize the data. There are other correct answers.

- ☐ The calculations could be too complex, since so much information is being used

10. A manager requests an analysis to look into an issue. In the request, the manager explains his or her hypothesis in

1 / 1 point

regards to what is most likely causing the problem. You perform the analysis and reject the hypothesis. When you meet with the manager to review, he or she asks you to redo the analysis and manipulate the data to align with his or her hypothesis. What is this an example of?

confirmation bias

✓ **Correct**
Correct!