BSBXBD406

ASSESSOR GUIDE

Present big data insights

Assessment 2 of 5

Short Answer Questions

Version 1

Assessment Instructions

Task overview

This assessment task contains six (6) short answer questions.

Read each question carefully before typing your response in the space provided.

Assessment Information

Submission

You are entitled to three (3) attempts to complete this assessment satisfactorily. Incomplete assessments will not be marked and will count as one of your three attempts.

All questions must be responded to correctly to be assessed as satisfactory for this assessment.

Answers must be typed into the space provided and submitted electronically via the LMS. Hand-written assessments will not be accepted unless previously arranged with your assessor.

Reasonable adjustment

Students may request a reasonable adjustment for assessment tasks.

Reasonable adjustment usually involves varying:

- the processes for conducting the assessment (e.g. allowing additional time)
- the evidence gathering techniques (e.g. oral rather than written questioning, use of a scribe, modifications to equipment)

However, the evidence collected must allow the student to demonstrate all requirements of the unit.

Refer to the Student Handbook or contact your Trainer for further information.

Please consider the environment before printing this assessment.

Question 1

Outline three (3) reasons why it is important for data analysts to present big data using appropriate visuals.

(Word count: 55-75 words)

Assessor instructions: Student responses are likely to include different wording than the sample answer provided. However, the acceptable responses must:

- be within the specified word limit
- reflect the characteristics described in the exemplar answer.

A sample answer is provided below.

- People can understand visual data faster than data that is presented in a text-only format.
- Big data analysis models can be extensive and include complex calculations that can sometimes be understood only by the analyst who created them. Therefore, analysts need to present data using the appropriate visuals in the most effective way possible.
- Visualisations help communicate information quickly and effectively. Therefore, to present complex numbers and figures, visualisations are used.

Other answers may include:

- For a company's stakeholders to make useful decisions about business operations, the insights obtained by analysing big data must be effectively communicated to them using appropriate visuals.
- visualisation can make emerging trends and patterns apparent
- Effective data visualisation can help:
    - Reveal patterns, trends and findings from an unbiased viewpoint
    - Provide context, interpret results and articulate insights
    - Streamline data so the audience can process the information presented
    - Improve audience engagement.

Question 2

List five (5) key benefits of big data presentation by 'data storytelling'.

(Word count: 45-75 words)

Assessor instructions: Student responses are likely to include different wording than the sample answer provided. However, the acceptable responses must:

- be within the specified word limit
- reflect the characteristics described in the exemplar answer.

Refer to the article What is Data Storytelling and Data Storytelling Examples | Microsoft Power BI for more information on data storytelling. This resource is provided to the student as part of the learning related to this unit.

A sample answer is provided below.

By using data storytelling analysts can,

- offer value to the audience and the industry
- provide a human touch to the data presented
- add value to the data and insights from the analysis
- build credibility as an industry and topic thought leader
- interpret complex information and highlight essential key points for the audience.

Other answers may include:

By using data storytelling analysts can,

- communicate findings in a way that is both clear and interesting
- articulate results of the analysis in a way that is appropriate for the audience
- help executives understand findings and make better decisions about their business.

Read the scenario and answer **Question 3.**

Scenario:

An organisation generates big data on retail sales and product inventories. The management requires analysis to be conducted on Sales and Production business areas that need improvement. They would also want the analysis outcomes to be presented using interactive dashboards and reports.

Question 3

Outline the use of 'SMART goals' criteria to determine requirements for presenting big data according to the scenario.

(Word count: 30-45 words per criteria)

Assessor instructions: Student responses are likely to include different wording than the sample answer provided. However, the acceptable responses must:

- be within the specified word limit
- reflect the characteristics described in the exemplar answer.

A sample answer is provided below.

Table 1 – Question 3 answer table

S.M.A.R.T. goals criteria	Answer *(30-45 words per criteria)*
Specific	Identify • to whom big data need to be presented? (the audience: stakeholders, analysts, subject matter experts, employees of specific departments etc.) • what specific business problems need to be addressed in the presentation for each business area? Other answers may include: • how the data analysis should be presented, what tools should be used to create the required report/visualisation formats and whether there are preferred colour schemes or branding guidelines that need to be followed.
Measurable	• Define what data will be used to measure the improvement in each business area of the analysis and how it will be determined if specific goals are achieved or not. Other answers may include: • Identify methods of collecting data around these specific measures to track progress in each business area.

S.M.A.R.T. goals criteria	Answer *(30-45 words per criteria)*
Achievable	• Ensure that the goals set are realistic and achievable. • Identify the necessary steps to achieve the required goals. • Identify any external or internal factors that might prevent the team from achieving the goals. Other answers may include: • Identifying the processes (can they achieve the same result as they did in their manual report?)
Relevant	• Identify whether the datasets captured have the relevant information for the presentation. • Are the identified measures relevant for each business area and does it really help to identify the level of improvement in business operations?
Time-bound	• Assess whether the goals are achievable in the given time frame. • What is the longest and shortest possible time to achieve this goal. • When and how the progress can be checked for each business area.

Question 4

Outline how the following methods are used for creating and representing big data reports.

(Word count: 30-55 words per method)

Assessor instructions: Student responses are likely to include different wording than the sample answer provided. However, the acceptable responses must:

- be within the specified word limit
- reflect the characteristics described in the exemplar answer.

A sample answer is provided below.

Table 2 - Question 4 answer table

Methods	Answer *(30-55 words per method)*
1. Dashboards	These are interactive pages that use visualisations to tell a story about the underlying data. Because these are limited to only **one page** (per context), they must be well-designed and should only contain the most important elements/metrics of the data story. Dashboards leverage operational data primarily in the form of metrics and KPIs.
2. Interactive maps	Interactive maps help to provide dynamic and real-time location information in a more consolidated manner, without missing important points. It helps to identify certain areas that need to be focused on. Seeing location data mapped and included in visualisations has both enhanced understanding by more audiences and offered a valuable, new context.
3. Real-time data dashboards	When using real-time data in dashboards and reports they include visualisations that get instantly refreshed as the underlying data gets updated/changed to reflect real-time data. According to the frequency of availability of data, organisations may use different methodologies to handle real-time data to be used in the report visuals. <u>Other answers may include:</u> Real-time data dashboards help organisations to expand their ability to collect and aggregate increased volumes of data and provide the audience with the most up-to-date information on a variety of business performance metrics.

Question 5

Outline five (5) critical success factors when presenting big data to an audience using interactive dashboards.

(Word count: 55-75 words)

Assessor instructions: Student responses are likely to include different wording than the sample answer provided. However, the acceptable responses must:

- be within the specified word limit
- reflect the characteristics described in the exemplar answer.

A sample answer is provided below.

- Ensuring that the right metrics and KPIs are displayed in the dashboard to provide meaningful insights, quickly, clearly and effectively, often using summarised forms (e.g. percentage values)
- Ability to apply filters to adjust visuals accordingly (e.g. specific time durations, categories etc)
- Obtaining feedback from the audience to ensure the presentation was successful.
- Ability to drill-through from the initial insights
- Presenting information using data story telling techniques

Other answers may include:

- Presenting insights using interactive dashboards to engage the audience
- Clear representation of figures (key values) accordingly to business requirements
- Ensuring that the end user able to identify all the data points that they included in the initial requirements
- Use of clear labels and information tooltips that the audience will understand.
- Ability to drill down into more details of the initial high-level visuals
- Accessibility of the dashboard (e.g. mobile friendly, colour-blind friendly)
- Ability to easily customise

Question 6

Outline three (3) considerations relevant to dashboard design principles for each listed criterion.

(Word count: 45-65 words for each criterion)

Assessor instructions: Student responses are likely to include different wording than the sample answer provided. However, the acceptable responses must:

- be within the specified word limit
- reflect the characteristics described in the exemplar answer.

A sample answer is provided below.

Table 3 - Question 6 answer table

Criterion:	Answer *(45-65 words for each criterion)*
Audience	• What the audience needs to know (e.g. Do they have specific requirements for decision making? Details of business problems they need to solve) • Their level of knowledge (e.g. Are they familiar with technical jargon? Are they familiar with domain knowledge? Are they trained to read numbers?) • Their visual preferences (e.g. Are they colour blind? Chart type preferences etc)

Criterion:	Answer *(45-65 words for each criterion)*
Context	To provide context when designing dashboards, consider, • providing users immediate access to the most important data. • displaying the important data in a prominent spot (preferably at the top of the screen) on the dashboard. • using the middle section of the dashboard to display trends and the bottom of the dashboard to display other granular details. Other answers may include: • providing relevant information in the dashboard according to the purpose of the analysis using most appropriate visualisation types • naming all axes and measurement units and adding titles to all charts in the dashboard. • providing comparison values where relevant (e.g. comparisons against set targets, projected values, value variances or percentage variances etc.)
Aesthetics	Aesthetics refer to how the dashboard looks and as design principles one should consider, • selecting the right color scheme for the presentation of visualisations to help enhance the dashboard design • keeping the colour scheme consistent throughout the data visualisations, using clear contrasts to distinguish between elements. • complying with organisational style guides, color scheme and brand guidelines Other answers may include: • colours selected need to contrast positive and negative values • using strengths of (shades) colours accordingly • using the right scale, symmetry and orientation of visuals

Assessment checklist:

Students must have completed all questions within this assessment before submitting. This includes:

1	Six (6) short answer questions to be completed in the spaces provided.	☐

Congratulations you have reached the end of Assessment (2)!