Reading Guide Week 3 Answers

1. Where does the data for business analytics come from?

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2 What are the main categories of data? What types of data can we use for BI and analytics?

The main categories of data are structured data and unstructured data. Both of these types of data can be used for business intelligence and analytics, although it is easier and more expedient to use structured data.

3 List and describe the three major categories of business reports.

There are a wide variety of business reports, which for managerial purposes can be grouped into three major categories: metric management reports, dashboard-type reports, and balanced scorecard-type reports. Metric management reports involve outcome-oriented metrics based on service level agreements and/or key performance indicators. Dashboard-type reports present a range of performance indicators on one page, with both static/predefined elements and customizable widgets and views. Balanced scorecard reports present an integrated view of a company's health and include financial, customer, business process, and learning/growth perspectives.

4 What are the main differences among line, bar, and pie charts? When should you use one over the others?

Line graphs are good for time-series data. Bar charts are good for depicting nominal or numerical data that can be easily categorized. Pie charts should be used for depicting proportions. You shouldn't use pie charts if the number of categories is very large.

5 Why would you use a geographic map? What other types of charts can be combined with a geographic map?

Geographic maps are useful when the data set includes any kind of location data, including addresses, postal codes, state names or abbreviations, country names, latitude/longitude, or some type of custom geographic encoding. Maps can be used in conjunction with other charts and graphs. For instance, one can use maps to show distribution of customer service requests by product type (depicted in pie charts) by geographic locations.

6 What is the difference between information visualization and visual analytics?

Visual analytics is the combination of visualization and predictive analytics. While information visualization is aimed at answering “what happened” and “what is happening” and is closely associated with business intelligence (routine reports, scorecards, and dashboards), visual analytics is aimed at answering “why is it happening,” “what is more likely to happen,” and is usually associated with business analytics (forecasting, segmentation, and correlation analysis).

7 Why should storytelling be a part of your reporting and data visualization?

The central idea of business reporting is to tell a story. Everyone who has data to analyze has stories to tell, whether it’s diagnosing the reasons for manufacturing defects, selling a new idea in a way that captures the imagination of your target audience, or informing colleagues about a particular customer service improvement program. Stories bring life to data and facts. They can help you make sense and order out of a disparate collection of facts. They make it easier to remember key points and can paint a vivid picture of what the future can look like. Stories also create interactivity—people put themselves into stories and can relate to the situation. People will be much more engaged and receptive if information is presented to them in a story format.

8 in the first one the designer did not start the y axis at zero and in the second one the 3d pie chart tilted, makes 31 look bigger than 34