Chapter 5

What is total cost of ownership? Why is it important for business to consider total cost of ownership rather than software and hardware cost only?

What is scalability? Why is it essential to the success of the modern business firm?

List and describe six services that comprise IT infrastructure

What is cloud computing? Example /advantages/Disadvantages. Describe three types of cloud computing?

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Explain how network economics, declining communication cost and technology standard affect IT infrastructure

What is the role of web services in IT infrastructure?

Explain client/server architecture? Give example of servers

The University of Pittsburgh Medical Center (UPMC) relies on information systems to operate 19 hospitals, a network of other care sites, and international and commercial ventures. Demand for additional servers and storage technology was growing by 20 percent each year. UPMC was setting up a separate server for every application, and its servers and other computers were running a number of different operating systems, including several versions of Unix and Windows. UPMC had to manage technologies from many different vendors, including Hewlett-Packard (HP), Sun Microsystems, Microsoft, and IBM. Assess the impact of this situation on business performance. What factors and management decisions must be considered when developing a solution to this problem?

Qantas Airways, Australia’s leading airline, faces cost pressures from high fuel prices and lower levels of global airline traffic. To remain competitive, the airline must find ways to keep costs low while providing a high level of customer service. Qantas had a 30-year-old data center. Management had to decide whether to replace its IT infrastructure with newer technology or outsource it. What factors should be considered by Qantas management when deciding whether to outsource? If Qantas decides to outsource, list and describe points that should be addressed in a service level agreement.

What is open-source software? How can business benefit from open-source software? Give example of open source software.

Chapter 6

What are the problems of managing data resourses in a traditional file environment? How database system help to solve the problem with traditional file environment.

Rather than using all data in one table, why do we store data in many tables?

Rather than using excel, what is the advantage of using database?

How can we start to design relational database? (ER diagram, logical view of database,physical view of database)

What is normalization? What is the benefit of normalization?

What is Nosql? What is the advantage of using it rather than SQL ?

Why do we need big data tools? What is the difference between data lake and data warehouses and data mart?

What are the differences between data mining and OLAP? When would you advise a company to use OLAP or data mining tools?

Chapter 7

Describe the features of a simple network and the network infrastructure for a large company.

Define the Internet, describe how it works.

• Name and describe the principal technologies and trends that have shaped contemporary

telecommunications systems.

It has been said that within the next few years, smartphones will become the single

most important digital device we own.Discuss the implications of this statement.

Define Bluetooth, Wi-Fi, WiMax, and 3G,4G, and 5G networks. Describe the capabilities of each and for which

types of applications each is best suited.

• Define RFID, explain how it works, and describe how it provides value to businesses.

• Define IoT, explain how they work, and describe the kinds of applications that use them.

LionClaw is a Singapore-based clothing brand with a sustainability profile. Management now wants

each garment to be accompanied by a tag with a link to a website where the customer can read

more about the work environment in the clothing factory, where the fabric is coming from, and so

on. Use the web to search for an RFID, NFC, or QR code system for generating codes and printing

tags. Work out the differences and choose from these systems to determine the best option for

LionClaw.

Chapter 9

How is it possible for ERP decentralize decision making while ERP is centralized system?

If we use different system for each functional unit rather than centralized ERP, what kind of problems can we have?

Based on analytical CRM. What kind of analysis is possible to do? Give 3 example.

What are the benefits of SCM?

What are the benefits of ERP?

What are the benefits of CRM?

Briefly explain components of SCM software.

You have been hired by Croydon Visiting Nurse Services, whose business processes are all manual, paper-based processes. How might a CRM system benefit them.

Why do we need Supply Chain Management software if we have already ERP system implemented in our firm?

What are the components of CRM? Briefly explain and benefits of each component.

**Agile**

What are the differences between waterfall methods and agile methodologies?

What are the disadvantages of waterfall methods?

What are the 4 Agile values?

Can you explain the roles and responsibilities within a Scrum team, and how they contribute to the Agile development process?

What are some common ceremonies or events in Scrum, and what are their main functions?

How does Scrum address challenges related to changing requirements and evolving customer needs in comparison to traditional project management approaches?

How does the concept of "self-organizing teams" in Scrum contribute to employee satisfaction in Agile environments?

What role does task estimation play in Scrum? What are the benefits?

How does adopting Scrum methodologies impact the time-to-market for software products?

How does adopting Scrum methodologies impact the quality and cost for software products?

How do Scrum's adaptive planning and flexible approach help organizations respond more quickly to changes in market demands and customer preferences, thus impacting time-to-market?

In what ways do Scrum's sprint reviews and retrospectives contribute to refining processes and accelerating time-to-market in subsequent development cycles?

Chapter 10

How has e-commerce transformed marketing?

What are the most 3 profound ways in which e-commerce and the Internet have changed the relationship between companies and their customers? Support your answer

List and describe the three main categories of electronic commerce. Which do you think is

ultimately the most valuable to the individual consumer? Support your answer.

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What are the characteristics of digital good ? Give example . Why are Industries with digital goods undergoing revolutionary changes?