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MGMT 310-01

Chapter 1 & 2

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### Chapter 1 Exercises

**1. Why would a systems analyst have to act as a translator? What groups might be involved?**

A systems analyst should act as a translator because they are involved in planning, recommendation of systems and software, as well as, co-ordination of developments vital in meeting business needs. They act as liaison between different vendors, IT professionals, and the actual end users. In addition, they are responsible for the design considerations, translation of end user specific needs into technical specifications, cost analysis and development, and implementation of time lines, as well.

**2. Identify the main components of information system. What is a mission-critical system?**

Information systems comprise of a set of components that are used for data collection, processing, delivering information, knowledge, as well as, digital products. Basically, the components of an IT system comprise of hardware, software, human resources, databases, as well as, related procedures. Other components of an IT system may be grouped as sales information system, purchasing information system, and inventory controlling. On the other hand, critical mission systems are devices or systems whose failure may contribute to failures in normal business operations.

**3. Compare enterprise computing systems to transaction processing systems. Provide three examples of each type of system.**

An enterprise computing system is the computing environment of the enterprise that runs all phases of operation to facilitate coordination and cooperation of all business operations. It integrates key business functions, such as, sales, accounting, finance, human resource, inventory and manufacturing. Examples of enterprise computing system comprise of the hardware, software, and the associated computing practices. This also comprise of the Internet. Transaction processing systems are systems that are used within an enterprise to offer support and organization in the processing of large amounts of work that involve the use of paper work, which are applied in the production of recording items such as, invoices. Therefore, the transaction processing systems comprise of systems that

offer system runtime functions, system administration functions, and application and development functions.

**4. Describe three systems development tools and three development methods.**

Workflow modeling tools are tools that are used in business processes for improvement and applications development, business simulation are instruments that are used to analyze business processes, in order to evaluate the dynamic behavior of business processes over time. Thus, they assist in the development of business processes and the performance of enterprise resources in effect to changes of certain environment or business parameter. Business simulators are tools that are used for business training and analysis. Business modeling refers to a method that describes the rationale of an enterprise organizes, creates, and captures market value. Process modeling refers to the processes of an enterprise that allows the current business processes to be evaluated and improved. Workflow modeling refers to a series of steps to execute a business process.

**5. What are the phases of the SDLC waterfall model? Who was Barry Boehm, and what did he have to say about spiral models?**

The phases in the waterfall model are categorized as follows. First is the requirement gathering and analysis where all the possible requirements of a system are developed. The second phase is the systems design where the requirement specifications in the first phase are studied and system design are prepared. The third phase is implementation where all the inputs from the system design are integrated and units developed and tested for functionality. The fourth phase is integration and testing where all units developed in the implementation phase are integrated into a system after testing each unit. The deployment phase follows functional and functional testing whereby the product is deployed into the market. The last phase is maintenance to fix any issue and deliver any changes in the market environment. Barry Boehm is a software engineer who created the spiral model of software development. He stated that the spiral model is important because it assists businesses in managing risks.

## Chapter 1 Apply Your Knowledge

### Hi-Volt components,

You are the IT manager at Hi-Voltage Components, a medium-sized firm that makes specialized circuit boards. Hi Voltage's largest customer, Green Industries, recently installed a computerized purchasing system. If Hi-Voltage connects to the purchasing system Green Industries will be able to submit purchase orders electronically. Although Hi-Voltage has a computerized accounting system, that system is not capable of handling EDI.

### Tasks:

- 1. What options does Hi-Voltage have for developing a system to connect with Green Industries' purchasing system?**

Hi-Voltage Components has three options to develop a system that connects with Green Industries' purchasing system. These include in-house development, outsourcing, or the purchase of an off-the-shelf system.

- 2. What terms or concepts describe the proposed computer-to-computer relationship between Hi-Voltage and Green Industries?**

The computer-to-computer exchange of information between Hi-Voltage Components and Green Industries is referred to as Business-to-Business (B2B) electronic commerce. B2B technologies, such as Electronic Data Interchange (EDI), help businesses integrate their supply chains to gain efficiency.

- 3. Would Hi-Voltage's proposed new system be a transaction processing system? Why or why not?**

Hi-Voltage's proposed system would be a Transaction Processing System (TPS) because it would handle daily, or routine, transactions of the firm, such as sales and billing of customers. TPSs record routine transactions that must take place for the firm to remain in business. TPSs are, therefore, mission-critical.

- 4. Before Hi-Voltage makes a final decision, should the company consider an ERP system? Why or why not?**

Hi-Voltage should consider an ERP system, which is a single system that supports company-wide processes, such as accounting, production, and customer relationship management. Integration of these processes will help managers make better decisions. In addition, an ERP system centralizes corporate data into a single repository for better data security and reliability. With an ERP system, Hi-Voltage can also obtain efficiency and cost-reduction gains.

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# WHEEL of TERMS

System comprised of hardware, software, data, processes, and people

INFORMATION SYSTEM

Spin the Wheel, Buy a Vowel or Submit an Answer

Type Guess

GUESS SUBMIT

Rounds 1/8 Total Score \$0

\$2800 Score this Round 4 Turns Left SPIN

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# WHEEL of TERMS

Powerful software used in the development and maintenance of information systems

CASE TOOLS

Spin the Wheel, Buy a Vowel or Submit an Answer

GUESS SUBMIT

Rounds 4/8 Total Score \$0

\$600 Score this Round 2 Turns Left SPIN

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## Systems Analysis and Design

10th Edition  
Rosenblatt, Harry J.

Chapter

1. Introduction to Systems Analysis and Design

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### QUIZ SUMMARY

CORRECT 5 INCORRECT 0 TOTAL ANSWERED 5 SCORE 100%

- \_\_\_\_\_ refers to the combination of hardware, software, and services that people use to manage, communicate, and share information. ✓
- In an information system, the system's raw material is \_\_\_\_\_. ✓
- When using a(n) \_\_\_\_\_ method, system development is organized into phases, with deliverables and milestones to measure progress. ✓
- The purpose of the systems analysis phase is to perform a preliminary investigation to evaluate an IT-related business opportunity or problem. ✓
- Sometimes companies will waive educational requirements if a candidate for employment has significant experience, skills, or professional certifications. ✓

## Chapter 2 Exercises

- 1. How does strategic planning influence day-to-day business operations? Why is it important for systems analysts to understand a company's strategic plan?**

Effective business strategic planning is very beneficial in day to day business operations because it is used to track business performance, improve turnaround times, and eventually increase market penetration. On the other hand, when there is poor or lack of strategic planning an enterprise may experience challenges in all elements of the business, such as, customer satisfaction, employee morale, and exhibit competitive pressure, in the market. Therefore, systems analysts should understand a company's strategic plan so that he or she may understand the roadmap of improving the company.

- 2. What is SWOT analysis? Prepare a SWOT analysis of your school or your employer?**

SWOT analysis is a tool that is used to help strategic analysts to determine the best opportunities for a company and to pursue to achieve the company's growth goals. The tool is beneficial because it assist business managers to identify which particular strengths to develop, in order to, improve business performance. The strengths of Wentworth Institute Technology comprise of a fully skilled and well equipped staff, an information system that assists it to offer distance learning activities, program participation with partnerships. The opportunity includes staff dedicated to the implementation of information systems. The weaknesses comprise of lack of working relationships with other departments and limited professional development opportunities for the staff members. Finally, the threats include security risks and threats to the information systems.

- 3. What is effective way to assess user requests for additional features and function?**

User feedback is the most effective way to assess user requests for additional features, and functions. End user customer surveys can be done through a customer relationship management system, or database management system. These are very important because they hold vital information regarding user feedback; hence allows management to understand vital information regarding users.

- 4. What are four types of feasibility? Which type focuses on total cost of ownership? Which type is influenced primarily by users?**

. The four types of feasibility studies include; the operational feasibility study that is mainly concerned with the urgency of an issue and the acceptability of any solution. Technical feasibility study explores the technical aspect of a business activity, and if the

project feasibility is within the limits of the existing technology, and if the technology exists and whether it is available within a particular resource constraint. Schedule feasibility is used by the analyst to determine if the deadline set is reasonable and whether the constraints placed in the project schedule can be reasonably achieved. Finally, economic feasibility is used to determine and weigh the costs and benefits of a given project. Operational feasibility affects end users because it demonstrates how a system will be developed and used by the end users.

**5. Identify and briefly describe five common fact-finding methods.**

The five common fact finding methods comprise of examining documentation of the business models being studied. These include forms and reports; however, data may not be easily accessible to anyone researching the existing business structure. Second, interviews can be used to collect information from staff working within an enterprise first hand. Third, observation can be done through objective analysis either personally or through a third hand perspective. Fourth, research can be conducted to understand the problem to allow a researcher to explore have solved similar issues. Finally, questionnaires may be used as a fact finding a method through asking questions to participants who respond to the questions. This allows one to assess business needs.

## **Chapter 2 Apply Your Knowledge**

### **The Friday IT staff meeting**

By the end of the week, things have quieted down. The IT staff discussed how to prioritize IT project requests, taking into account technical, operational, economic, and schedule feasibility. The group decided that a standard set of questions would be a good starting point.

#### **Tasks:**

- 1. Provide three sample questions to determine whether a project has technical feasibility.**
  - a. Does the company have skilled and experienced expertise to develop the system?
  - b. Are the technologies being considered compatible with existing platforms?
  - c. Is the solution robust enough to handle growth of transactions and other variations?

**2. Provide three sample questions to determine whether a project has operational feasibility.**

- a. Have users participated, and signed off on, development of the proposed system?
- b. Does the new system pose a threat to the welfare of employees?
- c. Does management see the need for the new system?

**3. Provide three sample questions to determine whether a project has economic feasibility.**

- a. Will the system lead to increased revenues?
- b. Does the system improve productivity?
- c. Do the estimated benefits exceed the total cost of ownership?

**4. Provide three sample questions to determine whether a project has schedule feasibility.**

- a. Will the project be completed within a reasonable time?
- b. Are there factors beyond the control of the firm that may affect the project completion deadline?
- c. Will an accelerated schedule make the project economically infeasible?


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## WHEEL of TERMS

Analysis tool that represents possible causes of a problem as a graphical outline

FISHBONE DIAGRAM

Pick a letter, Buy a Vowel or Submit an Answer



\$1300  
Score this Round  
Turns Left: 1  
SPIN

Q	W	E	R	T	Y	U	I	O	P
A	S	D	F	G	H	J	K	L	
Z	X	C	V	B	N	M			

Type Guess

GUESS SUBMIT

Rounds 1/8 Total Score \$0


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## WHEEL of TERMS

Reflects a firm's vision, purpose, and values

MISSION STATEMENT

Pick a letter, Buy a Vowel or Submit an Answer



\$2000  
Score this Round  
Turns Left: 3  
SPIN


Q	W	E	R	T	Y	U	I	O	P
A	S	D	F	G	H	J	K	L	
Z	X	C	V	B	N	M			

GUESS SUBMIT

Rounds 4/8 Total Score \$0

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Chapter

2. Analyzing the Business Case

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Book-Level Resources

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QUIZ SUMMARY

CORRECT **5**    INCORRECT **0**    TOTAL ANSWERED **5**    SCORE **100%**

1. Projects where management has a choice in implementing them are called voluntary projects.	✓	🔗
2. Many organizations assign responsibility for evaluating systems requests to a group called	✓	🔗
3. The _____ refers to the reasons, or justification, for a proposal.	✓	🔗
4. The IT director usually serves as a technical consultant to ensure that members of the _____ are aware of crucial issues, problems, and opportunities.	✓	🔗
5. The final task in the preliminary investigation is to prepare a report to management that includes an evaluation of the systems request, an estimate of costs and benefits, and a _____, which is a summary of the project request and a specific recommendation.	✓	🔗