Chapter 7

1. **Describe the concept of software as a service rather than a product. Is this an important trend? Why or why not?**
   "SaaS is a model of software deployment where an application is hosted as a service over the Internet. SaaS reduces the customer's need for software maintenance, operation, and support" (Shelly 260). An example would be Google's web-based office suite. This seems to be becoming an ever growing trend with many resources moving away from native applications to web-based, similarly outsized capital is flowing to develop and maintain these new platforms according to many metrics.
2. **Explain the difference between horizontal and vertical application software. Suggest two examples of each type.**
   Horizontal applications can be used by many types of companies or organizations; it can be utilized by many different businesses. "In contrast, a software package developed to handle information requirements for a specific type of business or industry is called a vertical application" (Shelly 267). An accounting package is a good example of a horizontal application because it can be utilized by many different businesses, or separate divisions that exist in large, diversified companies. Organizations with special system requirements include colleges, banks, hospitals, insurance companies,
   Construction companies, real estate firms, and airlines. Both companies need vertical Applications to handle their unique business requirements, but often use horizontal Applications for basic business needs, such as payroll processing and accounts payable.
3. **What are three typical reasons why companies develop their own information systems?**
   According to our textbook, the main reason companies develop their own information systems is because there are no commercially available software packages that can meet their unique business requirements. Secondly, to meet constraints of existing hardware and software: meet compatibilities. Finally, but not least, productive software helps minimize

changes in business procedures and policies since if many available packages will require changes in current business operations or processes which can become a distraction (Shelly 268).

4. **What are user applications? Suggest three examples that could boost user productivity.**

"A user application utilizes standard business software, such as Microsoft Word or Microsoft Excel, which has been configured in a specific manner to enhance user productivity" (Shelly 270).

5. **What are main steps in the software acquisition process?**

According to our textbook, Step 1 is to evaluate the Information System Requirements where we identify key features, Consider network and Web-related issues, Estimate volume and future growth, Specify hardware, software, or personnel constraints, and Prepare a request for proposal (RFP) or quotation (RFQ). In Step 2 we Identify Potential Vendors or Outsourcing Options, for instance, making a search on the World Wide Web. Next in Step 3 we evaluate the Alternatives: what scenario best fits the company's needs and wants. In this section we look at our existing users, Obtain feedback and learn about their experiences, do Application testing and Benchmarking. In step 4 we perform a Cost-Benefit Analysis, for instance, understanding the projects' Payback period, ROI, IRR and NPV. Moreover, we Identify and calculate TCO for each option you are considering. Step 5 is where you prepare a recommendation by evaluating and describing alternatives with all the cost considered and submit a presentation. Then at the end in step 6 we can implement the solution depending on the company's finances and lined up projects.

6. **What is an RFP, and how does it differ from an RFQ?**

RFP stands for Request for Proposal. It is a document that contains a company's information, the IT services the companies requires and describe the features that the company wants to be included. "An RFP helps ensure that your organization's business

needs will be met" (Shelly 276). On the other hand, "A request for quotation (RFQ) is more specific than an RFP" (Shelly 277). The document contains the same information along with an estimated price or quotation for the service.

7. **What is the purpose of a benchmark test? Suggest at least two examples of benchmarks.**

"A benchmark measures the times a package takes to process a certain number of transactions" (Shelly 279). Mainly benchmarks have a baseline metric for judging modification or adjustments against. Examples would include a benchmark test can measure the time needed to post 1,000 sales transactions, Antutu GPU benchmark for android.

8. **What is an evaluation model? How would you create a weighted evaluation model?**

An evaluation model is a wide range of responses and comments. It uses a technique that compares vendor ratings using a common yard stick approach. To create a weighted evaluation, a weight for probability or possibility is assigned to each factor (or vender attribute) which is trying to be evaluated and benchmarked against competing plans or systems.

9. **What decisions might management reach at the end of the systems analysis phase, and what would be the next step in each case?**

According to Shelly, to reach an end to the system analysis phases, we as managers must prepare the system requirements document and then make your presentation to management. Management probably will choose one of five alternatives:

1. *Implement an outsourcing alternative*. If outsourcing is selected, you will work with representatives of the service provider to achieve a smooth transition to the new environment.
2. *Develop an in-house system* by beginning systems design task
3. *Purchase or customize a software package*. Negotiate the purchase terms with the software vendor for management approval. Then, if the package will be used without modification, you can begin planning the systems implementation phase. If you must

make modifications to the package, your next step is to start the systems design phase. If the vendor will make the modifications, then your next step is to start planning the testing and documentation of the modifications as part of the systems implementation phase

4. *Perform additional systems analysis work*. Management might want you to investigate certain alternatives further, explore alternatives not examined, develop a prototype, reduce the project scope because of cost constraints, or expand the project scope based on new developments. If necessary, you will perform the additional work and schedule a follow-up presentation.
5. *Stop all further work*. The decision might be based on your recommendation, a shift in priorities or costs, or for other reasons. Whatever the reason, if that is management's decision, then you have no additional tasks for the project other than to file all your research in a logical location so it can be retrieved if the project is reopened in the future (Shelly 282).

10. Explain the relationship between logical and physical design.

According to Shelly Cashman's System and Analysis Series, Logical design is defined as what must take place, not how it will be accomplished. Physical design deals with the actual implementation of the project and how it needs to be done. For instance, "Physical design is like a set of blueprints for the actual construction of a building. Typically, a physical design describes the actual processes of entering, verifying, and storing data; the physical layout of data files and sorting procedures, the format of reports, and so on." Without a logical design it is impossible to generate a precise system analysis, and these designs can further keep track of the project's progress and requirements.

Chapter 7

Bibliography

Shelly, Gary B., and Harry J. Rosenblatt. Systems Analysis and Design. 10th ed. Boston: Course Technology Cengage Learning, 2012. Print.