**CIS420: System Planning & Analysis**



Instructor:

Kalpesh Rawal

Unit 2

Assignment 2

*“I pledge to support the Honor System of ECPI. I will refrain from any form of academic dishonesty or deception, such as cheating or plagiarism. I am aware that as a member of the academic community, it is my responsibility to turn in all suspected violators of the honor code. I understand that any failure on my part to support the Honor System will be turned over to a Judicial Review Board for determination. I will report to the Judicial Review Board hearing if summoned.”*

*Signature:*

Student: Sean H Bell Date: 6 April 2016

# **Unit 2 Assignment**

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**Part 1**

Before beginning Part 2 of this assignment, login to Lynda.com and view the following video clips:

* Lynda.com video "Visio 2010 Essential Training with David Edson": **Section:** "[Solutions available in each edition of Visio 2010](http://www.lynda.com/Visio-tutorials/Solutions-available-each-edition-Visio-2010/75921/82639-4.html)"
* Lynda.com video "Visio 2010 Essential Training with David Edson": **Section:** "[The Fluent UI (the Ribbon)](http://www.lynda.com/Visio-tutorials/Fluent-UI-Ribbon/75921/82642-4.html)"

**Part 2**

After viewing the video clips from **Part 1** of this assignment, in your textbook, **Systems Analysis and Design, Shelly & Rosenblatt, 10th Edition,** please complete the following:

In your textbook, **Systems Analysis and Design, Shelly & Rosenblatt, 10th Edition,** please complete the following:

* **Chapter 5:** Pg. 215 - Apply Your Knowledge - Assignment 2 - Kitchen Gadgets 1 - 4

Type your answers to questions 1 and 4 into a Word file and use **MS Visio** to create a context diagram for question 2 & a DFD 0 diagram for question 3. Upload your assignment using the below instructions.

# **Apply Your Knowledge**

This section contains four mini-cases. Each case describes a situation, explains your role, and requires you to apply what you learned in the chapter.

**1 Globe Consulting**

You are a senior systems analyst at Globe Consulting, a growing IT consulting firm. You are leading the development team for a major client. You need to explain data and process modeling to your two newly hired junior analysts (Michelle and Aidan) before meeting with the client tomorrow afternoon.

**Tasks**

* 1. Describe the rules for creating DFDs.
* 2. What are the data flow and process combinations that must be avoided when creating a DFD?
* 3. Explain what a diagram 0 is and how it is used.
* 4. Ask Michelle and Aidan to review the order system context diagram on page 188, and compare it with the order system diagram 0 DFD on page 192. Then ask them to answer the following questions: (a) How many external entities are shown in each diagram? (b) In each diagram, how many data flows connect to the external entities? (c) How many processes are identified in the diagram 0 DFD? (d) Could the data store have been shown in the context diagram? Why or why not?

**2 Kitchen Gadgets**

Kitchen Gadgets sells a line of high-quality kitchen utensils and gadgets. When customers place orders on the company's Web site or through electronic data interchange (EDI), the system checks to see if the items are in stock, issues a status message to the customer, and generates a shipping order to the warehouse, which fills the order. When the order is shipped, the customer is billed. The system also produces various reports.

**Tasks**

* 1. List four elements used in DFDs, draw the symbols, and explain how they are used.
* 2. Draw a context diagram for the order system.
* 3. Draw a diagram 0 DFD for the order system.
* 4. Explain the importance of leveling and balancing.

**3 Big State University**

The Big State University course catalog reads as follows: “To enroll in MIS 260, which is an advanced course, a student must complete two prerequisites: MIS 120 and MIS 222. A student who completes either one of these prerequisites and obtains the instructor's permission, however, will be allowed to take MIS 260.”

**Tasks**

* 1. Create a decision table that describes the Big State University course catalog regarding eligibility for MIS 260. Show all possible rules.
* 2. Simplify the table you just created. Describe the results.
* 3. Draw a simplified decision tree to represent the Big State University catalog. Describe the results.
* 4. Why might you use a decision tree rather than a decision table?

**4 Fresh-Mart Grocery**

Fresh-Mart Grocery is a regional grocery chain that is developing an information system to monitor inventory levels, product sales, and merchandise turnover. As products are sold in stores, they need to be replaced by shipments from the distribution centers. The IT manager wants you to document a process called BALANCE that determines whether extra product inventory is needed in a particular store. The BALANCE process is to be used in a just-in-time inventory system that automatically orders products and routes them to various stores for sale. A store manager can override the automatic BALANCE process if he or she so desires to get more product into a store.

**Tasks**

* 1. Create a decision table that describes the movement of inventory.
* 2. Draw a decision tree that describes the merchandise inventory management process.
* 3. Name four attributes that you can use to define a data flow in the grocery inventory information system.
* 4. Name four attributes that you can use to define a data store in the grocery inventory information system.